Erection of Class A1 Retail Food store, 'Food Village', associated access \& car parking, and improvements to listed cricket pavilion, Lampeter.

# TRANSPORT ASSESSMENT (PAC Submission) 



Entran is an independent environmental and transportation consultancy formed in 2005, with specific abilities and expertise in traffic engineering, transport planning, environmental impact assessment, air quality and noise assessment and monitoring. © Entran Ltd. All rights reserved.

Erection of Class A1 Retail Food store, 'Food Village', associated access \& car parking, and improvements to
listed cricket pavilion, Lampeter.

## TRANSPORT ASSESSMENT (PAC Submission)

| Revision | Date | Notes | Author | Checked | Approved |
| :--- | :--- | :--- | :--- | :--- | :--- |
| V1 | November 2021 |  | AKL | DJA | RGW |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

Entran Limited
$2^{\text {nd }} \& 3^{\text {rd }}$ Floors
Northgate House
Upper Borough Walls
Bath
BA1 1RG
T: 01179374077

## CONTENTS

1. INTRODUCTION ..... 4
2. SITE LOCATION ..... 6
3. LOCAL TRANSPORT NETWORK ..... 6
4. PROPOSED DEVELOPMENT ..... 13
5. TRANSPORT IMPLEMENTATION STRATEGY ..... 17
6. DELIVERY AND SERVICING ..... 21
7. TRIP GENERATION, DISTRIBUTION AND ASSIGNMENT ..... 23
8. TRANSPORT EFFECTS ..... 28
9. TRANSPORT IMPROVEMENTS ..... 31
10. SUMMARY AND CONCLUSIONS ..... 32
TABLES
3.1 Assumed Base Traffic Growth Factors
4.1 Consented Parking Provision at Other ALDI Stores
5.1 Indicative Staff Mode Share Targets
5.2 Summary of Travel Plan Measures
7.1 ALDI Vehicle Trip Generation
7.2 Proposed ALDI Person Trip Generation
8.1 Site Access / Pontfaen Rd Junction Assessment
FIGURES
2.1 Strategic Site Location
2.2 Local Context
3.1 Existing Site Access
3.2 Active Travel Map for Local Area
3.3 Walking Isochrones
3.4 Local Cycle Routes
3.5 Existing Bus Routes
3.6 Personal Injury Accidents
3.7 ATC Count Locations
3.8 2021 Observed Base Flows
3.92022 Baseline Traffic Flows
3.102027 Baseline Traffic Flows
4.1 Proposed Site Layout
4.2 NewMotion EVCP Cover Design
7.1 Development Primary New Traffic Distribution
7.2 Development Primary New Trips
7.3 Development Secondary Pass-by Trips
7.4 Development Secondary Diverted Trips
7.5 Development Total Traffic Assignment
7.6 2022 Opening Year Base + Development
7.72027 Future Year Base + Development
8.1 Parking Accumulation

## APPENDICES

A Pre-application Response
B Traffic Survey Data
C Architects' Plans and Swept Path Analysis
D TRICS Outputs
E PICADY Outputs

## 1. INTRODUCTION

## Overview

1.1. This Transport Assessment (TA) has been prepared by Entran Ltd to detail and assess transport matters associated with the proposed erection of Class A1 Retail Food store, erection of 'Food Village', associated access \& car parking, and improvements to the listed cricket pavilion at Pontfaen Road, Lampeter.
1.2. The retail proposal comprises:

- Primary vehicle and pedestrian access from Pontfaen Road;
- 1,921 sqm GFA ALDI Foodstore with 118 parking spaces ( 7 No. Parent and Child, 5No. Disabled, 2 No. Click and Collect, 4No. EV expandable to 24 No) and 8 cycle spaces;
- Offsite highway infrastructure as part of the build process to enhance non-motorised user access to the site and connectivity to the town centre and surrounding area to support Active Travel Wales.
1.3. In terms of the 'food village' element of the proposal will consist of 3 small pod style units focusing on local produce and skills with a strong link to the University and an opportunity to trade alongside Aldi. It is expected that these units will generally be open normal working hours and weekends, with sporadic vehicle related trips and servicing by LGV's and/or cars. 25 separate parking spaces adjacent to Aldi are provided although a high degree of linked trips is expected. Clearly for such a proposal it is quite hard to quantify any impact that it might have as the final use is not clearly defined and will develop over time.
1.4. The pavilion whist being refurbished will continue to be mainly an evening (training) and weekend (training and matches) facility and will therefore not impact peak hour traffic. The pavilion benefits from 12 existing car parking spaces with a further 10 overflow spaces also being provided.
1.5. This TA has sought to reference both National and Local Policy and Plan Documents including:
- Planning Policy Wales (ed.11, 2021)
- TAN 18: Transport
- Active Travel Wales Design Guidance (2014)
- Ceredigion Local Development Plan (LDP).
- Ceredigion County Council Parking Standards SPG
- Transport Assessment SPG
- Welsh Transport Appraisal Guidance (WeITAG).
1.6. The formal planning pre-application (PAC) response with relevant information can be found at Appendix A.


## Structure of Report

1.7. This report provides details of the traffic and transportation issues associated with the development proposals and addresses the following:

- The Existing Site and Surrounding Area
- Development Proposals
- Delivery and Servicing
- Sustainable Travel by all Modes
- Trip generation, distribution and assignment
- Highway Impact
- Parking accumulations
- Road safety
- Summary and Conclusions


## 2. SITE LOCATION

2.1. The application site is located 500 m west of Lampeter centre to the south of Pontfaen Road, Lampeter, in the County of Ceredigion. The strategic site location is illustrated in Figure 2.1 with the local context shown in Figure 2.2 below.
Figure 2.1-Strategic Site Location

©OpenStreetMap contributors
Figure 2.2-Local Context


## 3. LOCAL TRANSPORT NETWORK

## Site Access

3.1. The site currently takes vehicle and pedestrian access from Pontfaen Road via an existing gated access located almost opposite the priority junction to Ffynon Bedr. The existing site access arrangement is illustrated below in Figure 3.1.

Figure 3.1 - Existing Site Access


## Local Highway Network

3.2. The site is bounded to the north by A475 Pontfaen Road, which is a single carriageway road approximately 9 m wide in the vicinity of the site frontage. This highway includes footways to both sides, is street lit and subject to a 30 mph speed limit. Pontfaen Road provides access to the town centre to the east and local towns and villages to the west.
3.3. The A475 connects to Llanwenog, Rhydowen and Newcastle Emlyn to the west. To the east the A475 connects to the A482 at a mini-roundabout junction located in the town centre. The A482 to Aberaeron to the north and the A40 to the south at Llanwrda.

## Sustainability audit

3.4. Initial pedestrian, cycle and public transport audits have been carried out for the area surrounding the site to include an analysis of the current facilities for journeys by modes other than the private car.

## Active Travel Wales

3.5. Active Travel Wales Design Guidance (2014) sets out the procedures and processes to meet the goals of the Active Travel Wales Act 2013. The aim is to make active travel (e.g. walking and cycling) the most attractive option for most shorter journeys, and to leave the car behind where suitable to do so. The Act requires local authorities to produce active travel maps and deliver continuous year on year improvements in active travel routes and facilities.
3.6. The existing travel map for walking and cycling has been produced for Lampeter which is summarised below in Figure 3.2 and highlights the range of current active travel routes in the local area. This is explored in context to existing facilities surrounding the site.

Figure 3.2 - Active Travel Map for Local Area


Source: Ceridigion County Council
3.7. Figure 3.2 illustrates a number of integrated network walking routes in the town together with a cycle route through the centre of the town. The site is located in proximity to these existing routes.
3.8. The UK Design Manual for Roads and Bridges (DMRB) TD 91/05 "Provision for Non-Motorised Users" states in paragraph 2.3 that "walking is used to access a wide variety of destinations including educational facilities, shops, and places of work, normally within a range of up to 2 miles. Walking and rambling can also be undertaken as a leisure activity, often over longer distances".
3.9. Acceptable walking distances will vary considerably depending on various factors such as fitness and land topography; however, guidelines by the Institution of Highways and Transportation (IHT) state the acceptability of distances in metres to various attractions, are as follows:

- Desirable : 500m
- Acceptable : 1,000m (12-13 mins)
- Preferred Maximum : $2,000 \mathrm{~m}$
3.10. Manual for Streets usefully adds 'The propensity to walk is influenced not only by distance, but also by the quality of the walking experience. A 20 -minute walk alongside a busy highway can seem endless, yet in a rich and stimulating street, such as in a town centre, it can pass without noticing. Residential areas can offer a pleasant walking experience if good quality landscaping, gardens or interesting architecture are present' (MfS, Para 6.3.1).
3.11. TD 91/05 states in paragraph 2.11 that "cycling is used for accessing a variety of different destinations, including educational facilities, shops and places of work, up to a range of around 5 miles. Cycling is also undertaken as a leisure activity, often over much longer distances. As well as being a mode of transport in its own right, cycling frequently forms part of a journey in combination with cars and public transport".
3.12. Local Transport Note (LTN) 2/08 Cycle Infrastructure Design details in paragraph 1.5 "Typical cycle trip distances". In common with other modes, many utility cycle journeys are less than three miles, although, for commuter journeys a trip distance of over five miles is not uncommon. Novice and occasional leisure cyclists cycle longer distances where the cycle ride is the primary purpose of their journey. A round trip on a way-marked leisure route could easily involve distances of 20-30 miles. Experienced cyclists will often be prepared to cycle longer distances for whatever journey purpose".
3.13. Design Guidance: Active Travel (Wales) Act 2013 deals with the needs of cyclists at section 4.8 and considers amongst other things Factors Affecting Cycling Effort. Section 6 deals with Designing for Walking and Cycling.
3.14. The key objectives of national and local policy is minimising the need to travel, reducing the proportion of journeys made by private car by making the use of public transport, making walking and cycling more attractive, influencing the location and layout/links between development to maximise the use and value of existing and planned sustainable transport investment. The goal is to make cycling and walking a realistic choice for a range of journeys encouraging access for all age groups and abilities.


## Walking and Cycling

3.15. Within a walk distance of 2.0 km , the site is accessible to the entirety of the town on foot via footways along all local roads, providing a continuous link between the site and the local area. Figure 3.3 provides an illustration of the extent of the surrounding urban area most which is located within a comfortable $1,000 \mathrm{~m}$ walk. There are 7,066 residents located within a 2 km catchment area.

Figure 3.3 - Walking Isochrones

3.16. There is good permeability of footway links through the local area with a network of footpaths and footways adjacent to the site linking to residential areas and the town centre. A good proportion of travel to and from an ALDI store is often made on foot therefore this would provide a good environment to aid connected journeys by this mode of travel.
3.17. The footways alongside Pontfaen Road provide a good standard of provision however one notable barrier is the lack of a formal crossing point in the vicinity of the site.
3.18. The existing provision for cyclists in the local area is reasonable and commensurate with a small town in a rural area. There is an existing on road cycle route passing the site on Ponfaen Road which then routes along Peterwell Terrace a short distance to the east of the site, linking to New St and to the A482. This forms part of NCN Route No. 82 which links Cardigan / Newcastle Emlyn to Lampeter towards Aberystwyth. Figure 3.4 illustrates.

Figure 3.4 - Local Cycle Routes

©OpenStreetMap contributors
3.19. This review of facilities and routes has identified that there are no major obstacles to customers or staff walking or cycling to and from the site other than a potential severance across Pontfaen Road.

## Public Transport

3.20. Existing bus services in the local area are limited to the T1 (two hourly) and 585 (two hourly). The closest bus stop is located on Ponfaen Road opposite the Black Lion in the town centre, about 300 metres or 4 minutes' walk from the site. Figure 3.5 illustrates the bus routes in the town.

Figure 3.5 - Existing Bus Routes

3.21. There are no local railway stations in the area. The nearest station is located in Llandovery.

## Summary

3.22. It is evident that opportunities exist to travel to and from the site by foot, by bike, but with more limited options to use local public transport. This should be a good site to promote sustainable travel and reduce reliance on the private car.

## Road Safety

3.23. Personal injury accident data for the local area has been obtained from www.crashmap.co.uk. Figure 3.6 illustrates the accidents recorded in the local area over a five-year period 2016 to 2020.

Figure 3.6 - Personal Injury Accidents


[^0]3.24. The data indicates that within proximity of the site there have been no personal injury accidents over a five-year period. Further way from the site there have only been 4 PIA's, of which all were slight in severity. On average there have been less than one accident per year. A review of the accident detail therefore identifies no blackspots or common causes relating to highway deficiencies.

## Existing Traffic Flows

3.25. In order to inform this application, two Automatic Traffic Counts were undertaken on Pontfaen Road in October 2021. The location of each count is illustrated in Figure 3.7 below.

Figure 3.7 - ATC Count Locations

3.26. The survey collected data between $12^{\text {th }}$ and $18^{\text {th }}$ October and included vehicle classification as well as speeds. The average 7-day recorded speeds were as follows:

## West of proposed site access

- $\quad$ 85th percentile speeds westbound $=38.0 \mathrm{mph}$
- $\quad 85$ th percentile speeds eastbound $=32.8 \mathrm{mph}$

East of proposed site access

- $\quad$ 85th percentile speeds westbound $=31.0 \mathrm{mph}$
- 85th percentile speeds eastbound $=29.2 \mathrm{mph}$
3.27. A summary of the recorded traffic flows for the weekday AM, PM and Saturday peaks is provided in Figure 3.8. The figures in red are inclusive numbers of HGV. The traffic flows on Pontfaen Road are shown to be fairly modest at peak times. Full count details are attached at Appendix B.

Figure 3.8-2021 Observed Base Flows


## Future Traffic Flows

3.28. The expected traffic flows in the proposed opening year of the development of 2022, and a future year of 2027 can be derived using TEMPro, for the local MSOA Ceredigion 008. The growth factors applied to the base observed traffic are set out in Table 3.1.

Table 3.1 - Assumed Base Traffic Growth Factors

| Peak | 2021-2022 | 2021-2027 |
| :--- | :---: | :---: |
| AM Peak | 1.0075 | 1.0434 |
| PM Peak | 1.0074 | 1.0429 |
| Sat Peak | 1.0083 | 1.0476 |

3.29. The base traffic for a 2022 Opening Year is illustrated in Figure 3.9. The base traffic for 2027 Future Year is illustrated in Figure 3.10.

Figure 3.9-2022 Baseline Traffic Flows

AM Peak Weekday 2022 Baseline (0800-0900)


Site

PM Peak Weekday 2022 Baseline (1700-1800)


Site

Saturday Peak 2022 Baseline (1700-1800)


Site

Figure 3.10-2027 Baseline Traffic Flows

AM Peak Weekday 2027 Baseline (0800-0900)


PM Peak Weekday 2027 Baseline (1700-1800)


Saturday Peak 2027 Baseline (1700-1800)


## 4. PROPOSED DEVELOPMENT

## Development Composition

4.1. As specified in section 1, the proposed development comprises comprises:

- Primary vehicle and pedestrian access from Pontfaen Road;
- 1,921 sqm GFA ALDI Foodstore with 118 parking spaces ( 7 No. Parent and Child, 5 No. Disabled, 2 No. Click and Collect, 4No. EV expandable to 24 No) and 8 cycle spaces;
- Erection of Food Village pods (3 no.); and
- Offsite highway infrastructure as part of the build process to enhance non-motorised user access to the site and connectivity to the town centre and surrounding area to support Active Travel Wales. This proposal is outside the redline and as part of this PAC process is expected to form part of any future S278 in this form and location, or similar
4.2. Cycle parking is to be provided on site including 8 customer cycle parking spaces under shelter. Staff cycle parking would be provided internal to the warehouse. The constituent design components of the proposed development layout are discussed in more detail below
4.3. In terms of the 'food village' element of the proposal will consist of 3 small pod style units focusing on local produce and skills with a strong link to the University and an opportunity to trade alongside Aldi. It is expected that these units will generally be open normal working hours and weekends, with sporadic vehicle related trips and servicing by LGV's and/or cars. 25 separate parking spaces adjacent to Aldi are provided although a high degree of linked trips is expected. Clearly for such a proposal it is quite hard to quantify any impact that it might have as the final use is not clearly defined and will develop over time.
4.4. The pavilion whist being refurbished will continue to be mainly an evening (training) and weekend (training and matches) facility and will therefore not impact peak hour traffic. The pavilion benefits from 12 existing car parking spaces with a further 10 overflow spaces also being provided.


## Development Layout

4.5. A plan extract of the current proposed development layout is illustrated in Figure 4.1 and included as
architect's plans at Appendix C including HGV swept path tracking plots.
Figure 4.1 - Proposed Site Layout


## Access

4.6. As shown above in Figure 4.1, the proposed site access would be formed from Pontfaen Road, at a location approximately 80 metres west of the current site access. Dropped kerbs and tactile paving crossing points at the entrance would be included as part of the design layout.
4.7. The existing access would be converted to a shared pedestrian and cycle access into the site.
4.8. The proposed access would include pedestrian footway on the eastern side leading to the main store entrance with crossing points marked on the car park. Pedestrians would also enjoy a segregated access running through the site directly to the pavilion, as well as a new foot connection in the southeast corner of the site linking to the leisure centre.
4.9. In addition to this there would be a footway adjacent to the vehicle access and two further points of pedestrian access close to the foodstore. This would provide a contiguous link to all existing footways and improve the public realm for trips on foot.
4.10. The proposed site access would include suitable bellmouth radii to allow access for HGV servicing vehicles. Shared use of the main access for servicing is a commonly used format at consented ALDI developments in South Wales and further afield. Further details of servicing are provided in the following sections.
4.11. The site access visibility envelope would be in compliance with local design standards and accord compliant visibility splays for a 30 mph zone.

## Internal Layout

4.12. The site layout would aim to provides good permeability for pedestrians to the foodstore and to the adjacent existing sport and recreational uses which are to be enhanced.
4.13. The ALDI store would include circulating areas for parking designed in accordance with normal design standards and commensurate with the known needs for an operational ALDI store. Parking bays would be set perpendicular with a minimum reversing (or aisle width) of 6 m .
4.14. Pedestrian footways with uncontrolled crossing facilities including dropped kerbs and tactile paving (as required) would be provided at the main access road leading into the site and also at the other
locations shown on Figure 4.1. This would permit direct access to the customer entrance located at the northwest corner of the proposed building.
4.15. Within the ALDI car park, a shared surface would operate inside a low-speed environment as is common at supermarket sites.
4.16. The internal layout of the site facilitates access and egress for service vehicles from the ALDI service dock that will be able to be undertaken in a forward gear. As per ALDl's standard operational requirements, servicing is provided to the rear of the building. Further details are in Section 6.

## Parking

4.17. According to the Council's parking SPD (2015), the site is defined as being located in an urban service centre located within Parking Zone 4 and the usual standard which would apply for parking spaces is 1 per 20sqm GFA, with $6 \%$ provision for disabled spaces, 2 bicycle stands per 500 sqm and $5 \%$ provision for motorcycles together with 3 commercial vehicle spaces. Based on this standard, 96 car spaces would be required.
4.18. The proposed scheme includes for 118 spaces, 5 disabled spaces, 8 cycle spaces and 1 commercial space. The customer car parking spaces would include 2 No. click and collect, 7 No. Parent and Child, 4 No. Electric Vehicle Charging Points with provision for 20 additional spaces.
4.19. Whilst the number of vehicle spaces is slightly above the guidance levels with a parking ratio of $1: 16$ sqm, the proposed level of parking is commensurate with ALDI known operational needs and is very similar to the parking levels provided at several other consented ALDI stores. Table 4.1 summarises.

Table 4.1-Consented Parking Provision at Other ALDI Stores

| Store | GFA | Parking | Ratio |
| :--- | :---: | :---: | :---: |
| Ferry Rd, Cardiff | 1486 | 116 | $1: 13$ |
| Spytty Rd, Newport | 1623 | 102 | $1: 16$ |
| Caerphilly Rd, Cardiff | 1803 | 122 | $1: 15$ |
| Gabalfa | 1882 | 126 | $1: 15$ |
| Mon Bank, Newport | 1802 | 112 | $1: 16$ |

4.20. The above evidence illustrates the level of parking provision proposed by ALDI is at a similar level to that previously and recently considered acceptable by other LHA's in Wales. The proposed 118 customer spaces are not much greater in real terms than the SPG parking standards.
4.21. The floorspace of the proposed development is also quite close to the 2,000 sqm threshold whereby the standard abruptly changes from $1: 20$ sqm to $1: 14$ sqm, creating an artificial stepped increase from 100 spaces to 143 spaces, over the course of 1 sqm.
4.22. There is a clear need for a sensible, balanced and pragmatic approach to parking provision to ensure adequate parking provision for this development. The aim has to be both to prevent over-provision and encourage non-car trips, but also to avoid too little parking, because in a very practical sense this could easily lead to overspill onto Pontfaen Road and a subsequent issue for the LHA to resolve. Food retail stores by their very nature can generate large bulky bags of essential shopping and not all trips can be realistically undertaken by means other than the private motor car.
4.23. Based on extensive local experience at other ALDI stores in Wales, the proposed parking would ensure adequate provision and is considered to be appropriate and commensurate with both trading and operational requirements to help efficient operation of the car park given turnover and to prevent overspill onto adjacent roads. The following sections provide a check on parking accumulations.
4.24. Cycle parking would be located in proximity of the main entrance to the ALDI store in a step free and convenient location close to the main entrance and Pontfaen Road using 4 sheffield type stands. Cycle parking for ALDI is normally provided at the front of the store in an easy to locate and convenient
position. Staff cycle parking would be provided integral to the warehousing areas, as per other stores. More details are provided in the Travel Plan.
4.25. It is noted that ALDI seek to encourage travel by cycle whenever possible and in this regard will, through their Travel Plan, review the occupation of cycle stands and, if necessary and justified, introduce additional shoppers cycle parking facilities.
4.26. In terms of EV parking: 4 live EVCPs would be provided with passive provision for 20 future EVCPs. The first two EVCP bays would be designed as accessible bays. In order to highlight that they are EVCPs the white lining of these bays will be changed to blue. The NewMotion EVCP design is shown in Figure 4.2.

Figure 4.2 - NewMotion EVCP cover design


## 5. TRANSPORT IMPLEMENTATION STRATEGY - ALDI ONLY

5.1. As stated in the introduction, this TA has been developed to seek to influence modes of travel to the proposed redevelopment rather than merely predicting travel patterns and providing mitigation.
5.2. The aim of the Transport Implementation Strategy (TIS) for ALDI (as operation of food village and pavilion is under third party control) is to set out the measures the development proposal will support to provide travel choice and support the objectives of the Local Plan and in this regard presents:

## Target Modal Split

5.3. The revised target mode split for the TIS for journeys to and from the development proposal is summarised in Table 5.1. The initial values are simply taken from the 2011 Census data for Travel to Work for the local Workplace zone and are subject to refinements as more becomes known. The only target is car driver, with the targets for individual sustainable travel modes indications only of what one might expect the approximate split of journeys to be, but not specific targets in their own right. (i.e. all non-car driver modes of travel are 'sustainable travel modes').

Table 5.1 - Indicative Staff Mode Share Targets

| Mode of Travel | Expected Initial <br> Modal Split | 2-year Modal <br> Split Target | 5-Year Modal <br> Split Target |
| :--- | :---: | :---: | :---: |
| Car Driver | $79 \%$ | $73 \%$ | $67 \%$ |
| Car Passenger, Cycle, Walk, Bus | $21 \%$ | $27 \%$ | $33 \%$ |

5.4. Provided the overall contribution of sustainable travel modes helps deliver the car driver target, variations from the targets for sustainable travel modes is acceptable. Indeed, in some instances it is hoped they are exceeded.

## TIS Measures

5.5. The TIS aims to make the inevitable step change shift in overall travel mode across the area easier and quicker, providing travel choice for all. A Travel Plan should include the provision of up-to-date information about public transport services, timetables, and opportunities for car sharing (e.g. via a car share website).
5.6. The measures within the TIS, which are set out in the ALDI Staff Travel Plan, aimed at providing this travel choice include (In addition, all employees will receive details of the TP upon commencement of employment and a copy of the TP will be kept in the staff room).

## Measures and Actions

5.7. The Travel Plan Co-ordinator will ensure that the Travel Plan is implemented; operating efficiently and that all the measures for encouraging sustainable travel are in place. Responsibilities include:

- Promoting and encouraging travel modes other than the car, including providing information to staff via a notice board in the staff room, which will be checked every three months. Travel options will also be discussed at staff meetings;
- Ensuring that all information relating to public transport, cycling, walking and car sharing is displayed on staff notice boards and is kept accurate and up to date, as well as discussing the TP at staff meetings to continually encourage use of alternative modes than the private car;
- Ensuring that all information relating to public transport, cycling, walking are available to customers via availability of bus timetables etc, on the packing shelf at the front of the store and that the provided information is kept accurate and up to date;
- Promoting car sharing during both the staff interview and induction process as well as ongoing reminders from the TPC;
- Identify employee travel habits through staff surveys;
- Monitoring and reviewing the Travel Plan as set out in the TP;
- Training / induction of staff to cover Travel Plan and travel options;
- Ensuring the needs of the less mobile is incorporated in the Plan; and
- Coordinate and monitor the TP, update as required and liaise with external bodies and other relevant developers (in discussion with Ceridigion CC) in accordance with the contents of this TP.
5.8. The measures developed on site shall be largely based on the outcomes of the initial travel survey. Some measures are essential in meeting with current standards, for example the quantity of cycle and car parking provision, other measures will be unique to the site.
5.9. As such the following sections are intended to give an overview of the potential measures that could be implemented by the Travel Plan Co-ordinator if the travel survey highlights them as being appropriate.


## TP Measures

5.10. Due to the changing characteristics of the development over time it would be ineffective for the TP to specify TP measures or funding for measures that may not be required, Nevertheless, funding will be made available for the implementation of measures should the need arise through the monitoring process.
5.11. In this regard therefore, required measures must be determined by reference to travel surveys and importantly, an understanding of the factors that would motivate staff to alter their travel behaviour. The programme of surveys and monitoring therefore not only needs to identify travel behaviour but also attitudes to travel and key motivators for change.
5.12. Notwithstanding this, the TP's measures are divided into sub-categories:

- Hard measures - these are infrastructure provision or improvements;
- Soft measures - these are management measure, incentives, marketing initiatives etc;
- Secured measures - these are measures that will be implemented; and
- Failsafe measures - these are an 'arsenal' of measures available to the TP Coordinator to be chosen according to survey feedback so that resources can be targeted towards those measures found to be most effective.
5.13. The following tables describe both secure and failsafe measures per mode. Secure measures are those that will be adopted prior to recruitment of staff or as part of the build process, with the failsafe measures being those that could be introduced should the need arise.
5.14. In addition, all employees will receive details of the TP upon commencement of employment and a copy of the TP will be kept in the staff room.

Table 5.2 - Summary of Travel Plan Measures

## Walking - Hard measures

| Secured | Failsafe |
| :--- | :--- |
| • Good on-site lighting; | $\bullet$ Additional pedestrian signage; |
| • Lockers; |  |
| • New footway across store frontage |  |

Walking - Soft measures

| Secured | Failsafe |
| :--- | :--- |
| • Marketing - promoting walking in all | $\bullet \quad$ Personalised Travel Planning. |
| written and electronic material - Travel <br> pack |  |
| • Notice board in staff room displaying |  |

## Cycling - Hard measures

| Secured | Failsafe |
| :--- | :--- |

- Good on-site lighting;
- Additional cycle parking
- 8 external prominent and covered cycle parking spaces via Sheffield loopsusage to be monitored - via the TP
- Provision for in-store cycle storage facilities for employees convenient to staff room
- Implement the Government backed cycle purchase scheme (Aldi standard)


## Cycling - Soft measures

| Secured | Failsafe |
| :--- | :--- |
| Marketing - promoting cycling in all | • Negotiated discount with local bike shop; |
| written and electronic material - Travel <br> pack | • Personalised travel planning. |
| Notice board in staff room displaying <br> cycle routes to and from the <br> development |  |

## Public Transport - Soft measures

| Secured | Failsafe |
| :--- | :--- |

- Marketing - promoting the use of public transport in all written and electronic material; Travel pack (including bus routes and bus/train timetable info)
- Travel notice board in staff room displaying bus timetables
- Personalised travel planning;
- Investigate bus discounts for staff


## Car Sharing - Hard measures

| Secured | Failsafe |
| :--- | :--- |

- Marketing - promoting car sharing in all - Personalised travel planning written and electronic material as well as interview and induction process
- Guaranteed ride home (emergency only)
5.15. The Travel Pack (to be agreed with CCC) will contain information on the alternatives to singleoccupancy car use available to staff including;
- Comprehensive walking and cycling route maps linking the site to local infrastructure including shops, residential areas and bus facilities;
- Bus maps and timetables as well as leaflets describing the health benefits of cycling and walking;
- contact details of the Travel Plan Co-ordinator for the site; and
- Useful resources such as Journey Planner website to enable people to plan their own journeys.
5.16. Travel Packs will be issued to all staff as part of their induction process. Staff will also be advised of the Travel Plan and Pack during the interview process.


## 6. DELIVERY AND SERVICING - ALDI ONLT

## ALDI Company Specific Servicing Arrangements

6.1. ALDI, as a company, operate the following specific servicing arrangements and working practices.
6.2. A store in Lampeter as per Aldi's other nearby stores will be serviced from Aldi's Regional Distribution Centre (RDC) in Cardiff. This RDC currently supplies goods to in excess of 80 stores.
6.3. Between $30-50$ staff ( 27 FTE) are employed at each store, comprising a Store Manager, Assistant Store Manager and Store Assistants, although not all staff are present on site at all times.
6.4. Delivery routes are planned to minimise distances travelled by each vehicle and maximise efficiency of goods per delivery. This practice is economically prudent for Aldi but also sustainable by virtue of reducing vehicle kilometres travelled. Each vehicle will visit between 1 and 6 stores per trip depending on the nature of the delivery and the geographical location of the stores.
6.5. On average each store will have only two deliveries by articulated lorry per day plus a modest number of smaller vehicles delivering locally sourced fresh produce. This compares with an average of 6 to 10 articulated lorries and up to 20 subsidiary vehicles (including HGVs) per day usually associated with the larger supermarkets.
6.6. Each store manager will have an allotted time each day by which the main delivery will have taken place. Each driver is furnished with a mobile phone and is able to inform the distribution centre if any delay is likely. However, this is very rare and allocated delivery times are consistently met by the distribution teams.
6.7. Delivery practices are identical at each store. Goods delivery is a one-man function carried out by the driver. The vehicle is reversed down the delivery ramp to the loading bay which is fitted with a "dock leveller" to provide a flush ramp from the floor of the lorry to the floor of the storage area.
6.8. The driver gains access to the building by means of a "driver's door" located next to the loading bay. The driver opens the roller shutter door from within the building then unloads the goods directly into the storage area. The driver is then responsible for locking the shutter and the side door before leaving. Contact with the store manager is only required where site specific special arrangements dictate.
6.9. The daily HGV delivery arrival journey will normally take place outside peak highway network hours as well as peak store trading hours;

- The standard delivery period is $1 / 2$ hour;
- Vehicular access to the delivery ramp will be through the car park;
- Aldi's service vehicles benefit from operational safety improvements including;
- Rear Cameras;
- Audible Warning Systems; and
- Reversing Object Sensors.
6.10. ALDI has a long-established approach of ensuring minimal off-site impacts to neighbours and aims to be a responsible neighbour developing good relationships within the community and ensuring any disturbances are kept to a minimum.


## Site Specific Operational Requirements

6.11. Aldi, as a company, operate the following specific servicing arrangements and working practices:

- The store will normally be served by two HGV's and a number of smaller vehicles per day, which will unload their goods using a dock leveller adjacent to the store building;
- Access for service vehicles will be from the site access.
- Turning and reversing manoeuvres undertaken within a dedicated area within the car park;
- Egress in a forward gear;
- The daily HGV delivery arrival journey will normally take place outside peak highway network hours; and
- Any non-staff vehicles remaining anywhere in the car park once the store is closed will be warned/fined and eventually removed.
6.12. The swept path of the HGV to and from Pontfaen Rd and the ALDI dock leveller is illustrated in Appendix C. The location of the ALDI dock leveller is on the south side of the proposed building.
6.13. Commercial refuse collection would be undertaken on site with refuse vehicles able to access the development via the main access road for waste and recycling collection with refuse and recycling bins collected directly and wheeled to the vehicles to minimal carry/transfer distances to each unit. The refuse vehicle would be able to utilise the same HGV turning head area to ensure no long reversing manoeuvres occur on site.


## 7. TRIP GENERATION, DISTRIBUTION AND ASSIGNMENT

## Introduction

7.1. As described in Chapter 4 of this report, it is proposed to develop this site for an ALDI discount food store of 1,921 sqm GFA, including access with associated parking and servicing facilities.
7.2. This section details the expected trip generation of the proposed ALDI store by mode of travel and the expected distribution onto the local transport networks.
7.3. As discussed in Section 4, traffic associated with the food pods and pavilion will generally be outside peak highway hours or linked with Aldi therefore have not been considered in this section.

## Vehicle Trip Generation

7.4. In order to determine the potential future vehicular trip generating characteristics of the proposed site, use was made of the standardised TRICS database. The trip generation is summarised below in Table 7.1 with the TRICS output provided at Appendix D.

Table 7.1 - ALDI Vehicle Trip Generation

| Peak | Trip Rates |  |  | Trip Generation |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Inbound | Outbound | Two-Way | Inbound | Outbound | Two-Way |
| AM Peak | 2.443 | 1.620 | 4.063 | 47 | 31 | 78 |
| PM Peak | 3.772 | 3.985 | 7.757 | 72 | 77 | 149 |
| Saturday Peak | 6.410 | 5.973 | 12.383 | 123 | 115 | 238 |

## Source: TRICS

7.5. The proposed development therefore would be expected to generate 78 trips in the weekday AM peak and 149 trips in the weekday PM peak, with 238 on the Saturday peak.

## Proposed Site Multi Modal Trip Generation

7.6. The TRICS database has been interrogated to determine the likely modal split of non-car travel by ALDI customers. Table 7.2 indicates the scale of trip generation expected.

Table 7.2 - Proposed ALDI Person Trip Generation

| Peak | Trip Generation |  |  |
| :--- | :---: | :---: | :---: |
|  | Walk | Cycle | Public Transport |
| AM Peak | 31 | 2 | 5 |
| PM Peak | 67 | 4 | 13 |
| Daily | 713 | $\mathbf{3 5}$ | $\mathbf{1 2 8}$ |

7.7. The assessment indicates that there would be 3,359 daily person trips of which $21 \%$ would be on foot, $1 \%$ by cycle and $4 \%$ by public transport.
7.8. The majority of NMU trips to the proposed discount foodstore would therefore be made on foot with a much smaller proportion of trips made by public transport and cycling. This follows observed trip behaviour at ALDI discount foodstores.

## Trip Distribution and Assignment

7.9. Whilst the above illustrates the expected trip generation from ALDI, this forms the gross trip generation and makes no allowances for secondary trips already on the local network. An ALDI store will attract trips that are already on the local highway network and take the opportunity of passing the site to use the new opportunities; such trips are known as secondary diverted or pass-by trips.
7.10. Therefore, in order to understand the overall impact of the development on the local highway network, it is necessary to clearly identify the actual impact after external factors are considered such as trip types. Typically, new food stores only lead to about $10 \%$ completely new traffic, with the remainder forming pass-by and diverted trips (secondary trips) which are already on the local highway network.
7.11. The definition of pass-by trips is that which actually passes the site, which in this case is adjacent to A475 Pontfaen Road. Diverted trips are those which make a diversion from their original route; for example, to a competing foodstore.
7.12. TRICS research report $14 / 1$ sets out that the standard application of the pass-by and diverted trip proportions in research report 95/2 is not considered so relevant and a site-by-site approach should be used instead.
7.13. The quanta of pass by / diverted / linked trips for this store was undertaken using first principles taking into account the location of other stores in proximity to the proposed development.
7.14. An assessment methodology set out at section 11 in TRICS paper 14/1. The location type for the proposed store is in a location close an important north/south route into Porthcawl and close to the town centre, therefore the pass-by/diverted percentage is likely to be reasonable.
7.15. The number of facilities at the store is more limited as a result of the limited offer. Click and collect is available at ALDI, but the GFA is much less than 4,000 sq.m which might suggest the ALDI store would act more as a convenience store with corresponding higher pass-by levels, however ALDI also contains some comparison elements (20\%) and as a result some diverted trips may occur. The proposed development is located in very reasonable proximity to existing residential areas.
7.16. Within Lampeter itself there are two other foodstores located to the East and southeast of the site. Therefore, in terms of diverted trips the majority would occur from the East on Pontfaen Road. To ensure a robust assessment, in this regard it is considered that all of the trade draw will be from the east of the site, and none of the existing trips to these stores will be assumed already passing the site.
7.17. In terms of the trip type proportions the follows split has been assumed:

- New Primary Trips 80\%
- Secondary Passby Trips $10 \%$
- Secondary Diverted Trips $10 \%$
7.18. Therefore, for the purposes of the assessment $90 \%$ are essentially new trips passing the site which is a high proportion and is likely to be less than this in reality, given the A475 provides a key route in the local area.
7.19. The distribution of primary new trips was based on a population-distribution gravity type of model using 2011 population numbers and journey times derived from Google Maps set to the PM peak. Figure 7.1 provides the development primary trip flow distribution which indicates based on the existing population, $81 \%$ would arrive from the West and $19 \%$ from the East on Pontfaen Road. Figure 7.2 provides the Friday weekday development primary trip assignment.

Figure 7.1 - Development Primary New Traffic Distribution

ALDI Primary Distribution

| Destination |  |  |  | $\underset{\Delta}{\stackrel{N}{\Sigma}}$ | 苂 | $\stackrel{\text { H }}{\sim}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| W01000527 : Ceredigion 008A | 1,510 | 2 | 4 | 378 | 59\% | A |
| W01000528 : Ceredigion 008B | 1,460 | 3 | 9 | 162 | 25\% | A/B |
| W01000535 : Ceredigion 008C | 2,037 | 8 | 64 | 32 | 5\% | A |
| W01000537 : Ceredigion 008D | 1,484 | 8 | 64 | 23 | 4\% | B |
| W01000541 : Ceredigion 008E | 1,854 | 10 | 100 | 19 | 3\% | A |
| W01000701: Carmarthenshire 001C | 1,589 | 12 | 144 | 11 | 2\% | B |
| W01000702 : Carmarthenshire 001D | 1,218 | 12 | 144 | 8 | 1\% | A |
| W01000650 : Carmarthenshire 002B | 1,613 | 16 | 256 | 6 | 1\% | B |



Average J-Time
8.9
$639.1 \quad 100 \%$
Set to PM weekday

| Zone |  |
| :---: | :---: |
|  |  |
| A | $81 \%$ |
| $B$ | $19 \%$ |


| Tot. | $100 \%$ |
| :--- | :--- |

Figure 7.2 - Development Primary New Trips

AM Peak Weekday ALDI Primary Trips (0800-0900)


Site

PM Peak Weekday ALDI Primary Trips (1700-1800)


Saturday Peak ALDI Primary Trips (1100-1200)


Site
7.20. The secondary pass by trip proportion was based on the directional distribution of baseline traffic in each peak. Figure 7.3 provides the development secondary pass-by assignments.

Figure 7.3 - Development Secondary Pass-by Trips

AM Peak Weekday ALDI Sec. Pass By Trips (0800-0900)


Site

PM Peak Weekday ALDI Sec. Pass By Trips (1700-1800)


Saturday Peak ALDI Sec. Pass By Trips (1100-1200)

7.21. Figure 7.4 provides the secondary diverted trip distribution.

Figure 7.4 - Development Secondary Diverted Trips

## AM Peak Weekday ALDI Sec. Diverted Trips (0800-0900)



Site

PM Peak Weekday ALDI Sec. Diverted Trips (1700-1800)


Site

Saturday Peak ALDI Sec. Diverted Trips (1100-1200)


Site
7.22. Figure 7.5 provides the total combined ALDI Trip assignment onto Pontfaen Road.

Figure 7.5 - Development Total Traffic Assignment

AM Peak Weekday ALDI Total Trips (0800-0900)


Site

PM Peak Weekday ALDI Sec. Total Trips (1700-1800)


Site

Saturday Peak ALDI Sec. Total Trips (1100-1200)


Site

## Assessment Scenarios

7.23. The site access junction is to be tested for capacity in the Opening Year 2022 as well as the Future Year 2027. Figure 7.6 provides the 2022 opening year base plus development flows.

Figure 7.6-2022 Opening Year Base + Development

AM Peak Weekday 2022 Baseline + Dev (0800-0900)


PM Peak Weekday 2022 Baseline + Dev (1700-1800)


Saturday Peak 2022 Baseline + Dev (1700-1800)

7.24. Figure 7.7 provides the 2027 future year base plus development flows.

Figure 7.7-2027 Future Year Base + Development

AM Peak Weekday 2027 Baseline + Dev (0800-0900)


PM Peak Weekday 2027 Baseline + Dev (1700-1800)


Saturday Peak 2027 Baseline + Dev (1700-1800)

7.25. The above traffic figures have been taken forward for use in a highway capacity assessment.

## 8. TRANSPORT EFFECTS

## Introduction

8.1. In order to determine the impact on the local highway network from the proposed development, normal practice is to undertake an assessment by comparing the baseline situation to the 'with development' situation.
8.2. Where the site has an existing use, the impact is often determined by comparing the net increase in journeys between the existing and proposed uses. In this case the site is currently used as playing fields as part of the University of Wales Trinity St David campus and it is proposed that part of the site would be retained, enhanced and essentially continue to be used in this manner.
8.3. The existing use of the playing fields (and any related traffic) during the assessment periods for the ALDI store is expected to be negligible and can be safely ignored for the purposes of this report.
8.4. A Junctions 9 (PICADY) traffic model was constructed for the Pontfaen Road site access junction. Geometric measurements were taken from the masterplan layout.
8.5. A summary of the operational assessment is provided below.

Operational Assessment - Site Access Junction
8.6. A summary of the operational assessment for the proposed access junction is summarised in Table 8.1 below. This model also included for the proposed pedestrian crossing to the east of the access junction. The full model results are included at Appendix D.

Table 8.1 - Site Access / Pontfaen Rd Junction Assessment

| Scenario | Arm | Queue | Delay | RFC |
| :--- | :--- | :---: | :---: | :---: |
| 2022 AM Base + Dev | Site Access | 0 | 7 | 0.06 |
|  | Pontfaen Rd (RT) | 0 | 5 | 0.07 |
| 2022 PM Base + Dev | Site Access | 0 | 8 | 0.17 |
|  | Pontfaen Rd (RT) | 0 | 6 | 0.12 |
| 2022 SAT Base + Dev | Site Access | Pontfaen Rd (RT) | 0 | 9 |
|  | Site Access | 0.24 |  |  |
|  | Pontfaen Rd (RT) | 0 | 5 | 0.19 |
| 2027 PM Base + Dev | Site Access | 0 | 7 | 0.06 |
|  | Pontfaen Rd (RT) | 0 | 6 | 0.08 |
| 2027 SAT Base + Dev | Site Access | 0 | 9 | 0.17 |
|  | Pontfaen Rd (RT) | 0 | 6 | 0.19 |

8.7. The results of the capacity assessment of the existing situation reveal that the proposed junction would remain comfortably within capacity in the weekday and Saturday peaks. The highest ratio of flow to capacity (RFC) is 0.24 which would occur on the site access arm in the Saturday peak. Generally, there would be minimal amounts of queueing on Pontfaen Road either for the right turn into the site or for the proposed pedestrian crossing. The model suggests this situation isn't expected to materially change in the 2022 opening year or 2027 future horizon year.

## Road Safety

8.8. The review of historical accidents in Section 3 revealed a relation to arbitrary human error. The level of accidents over the last five years in the vicinity of the site is negligible, and no accidents were recorded in the vicinity of the existing site access.
8.9. The addition of the development traffic is modest in scale and the development is considered unlikely to introduce or lead to any new material road safety issues given the development adds only a minor increase to traffic volumes of up to 1-2 vehicles per minute at peak times. The creation of a controlled pedestrian crossing on Pontfaen Road would also help to reduce vehicle to pedestrian conflict that might otherwise be the case with the increased footfall to the site.

## Summary

8.10. To summarise the impacts of the proposed development as follows:

- The proposed site access junction onto A475 Pontfaen Road is expected to remain well within capacity in the opening and future year with development traffic without leading to any capacity or queue issues at the junction. The scale of the development traffic is expected to be about one to two vehicles per couple of minutes, which is a low demand;
- A parking accumulation assessment has demonstrated that the proposed ALDI car park can accommodate the expected parking accumulation and movements at the busiest times during the week to avoid any overspill parking highway impact onto local areas and attendant negative effects
- The proposed development should not lead to any road safety impacts on the local highway network.
8.11. Based on these findings the development proposals are not expected to lead to an unacceptable offsite highways impact on the adjacent transportation network.


## 9. TRANSPORT IMPROVEMENTS

9.1. As discussed in Section 4, it is proposed that the proposed development would include additional improvements to transport infrastructure. The following items are identified:

- A new controlled pedestrian crossing on Pontfaen Road to improve foot access to the development. The integrated network map produced by Ceredigion Council showing the aspirations to improve the active travel routes does not specifically identify a proposed pedestrian crossing, however, this proposed facility would also enhance the existing active travel routes in the town and provide a good addition to the active travel routes to the benefit of the site, town and wider area.
- The proposed layout of the site would improve footpath connections, including to the existing access in the south-east corner of the site to the leisure centre. This would provide a contiguous link to existing footways and further improve the public realm in the town for trips on foot.
- Cycle parking would be provided in excess of local authority requirements.


## 10. SUMMARY AND CONCLUSIONS

10.1. This Transport Assessment (TA) has been prepared by Entran Ltd to detail and assess transport matters associated with the proposed erection of Class A1 Retail Food store, erection of 'Food Village', associated access \& car parking, and improvements to the listed cricket pavilion at Pontfaen Road, Lampeter.
10.2. The proposal comprises;

- Primary vehicle and pedestrian access from Pontfaen Road;
- 1,921 sqm GFA ALDI Foodstore with 118 parking spaces ( 7 No. Parent and Child, 5 No. Disabled, 2 No. Click and Collect, 4No. EV expandable to 24 No) and 8 cycle spaces;
- Erection of Food Village pods (3 no.); and
- Offsite highway infrastructure as part of the build process to enhance non-motorised user access to the site and connectivity to the town centre and surrounding area to support Active Travel Wales. This proposal is outside the redline and as part of this PAC process is expected to form part of any future S278 in this form and location, or similar
10.3. Cycle parking is to be provided on site including 8 customer cycle parking spaces under shelter. Staff cycle parking would be provided internal to the warehouse. The constituent design components of the proposed development layout are discussed in more detail below
10.4. In terms of the 'food village' element of the proposal will consist of 3 small pod style units focusing on local produce and skills with a strong link to the University and an opportunity to trade alongside Aldi. It is expected that these units will generally be open normal working hours and weekends, with sporadic vehicle related trips and servicing by LGV's and/or cars. 25 separate parking spaces adjacent to Aldi are provided although a high degree of linked trips is expected. Clearly for such a proposal it is quite hard to quantify any impact that it might have as the final use is not clearly defined and will develop over time.
10.5. The pavilion whist being refurbished will continue to be mainly an evening (training) and weekend (training and matches) facility and will therefore not impact peak hour traffic. The pavilion benefits from 12 existing car parking spaces with a further 10 overflow spaces also being provided.
10.6. The proposed development would include a primary vehicle and pedestrian access from Pontfaen Road at a location approximately 80 metres west of the current site access. The existing site access from Pontfaen Road in the northeast corner of the site would be closed up to vehicles and enhanced for the development to provide walking and cycling access.
10.7. Further point of foot/cycle access would be provided into the site to provide a contiguous link to all existing footways and improve the public realm for trips on foot.
10.8. Servicing would be consistent with ALDI's long established methods and the site access will be designed to provide safe and efficient access for turning of service vehicles.
10.9. Reasonable and adequate car parking is proposed, commensurate with the needs and expected operation of the development proposal, and the assessment demonstrates avoidance of overspill onto local roads and attendant negative effects. Secure, covered and illuminated cycle parking spaces for the discount food store would be provided;
10.10. Offsite highway infrastructure as part of the build process would be included to enhance nonmotorised user access to the site and connectivity to the town centre and surrounding area, to support Active Travel Wales.
10.11. Personal injury accident data has been examined on the local highways and there has been no accidents recorded in the vicinity of the site access. The addition of the modest amount of development traffic is considered unlikely to introduce or lead to any new material road safety issues.
10.12. The site will include for a Staff Travel Plan and a Transport Implementation Strategy which provides the opportunity to reduce dependence on travel by private car and seeks to influence travel to and
from the site rather than merely assessing its impact.
10.13. Trip generation rates from TRICS surveys taken from the previous consented application to form a reasonable and robust analysis of the expected traffic from the ALDI foodstore.
10.14. An operational assessment has been undertaken of the proposed site access at expected peak times and this has shown that there should not lead be any issues expected and the development would not lead to significant nor severe effects on the local highway network.


## Conclusion

10.15. The information presented in this TA Report has been presented to help the local authority review the likely effects on the surrounding transportation network of a proposed revised ALDI foodstore development at Pontfaen Road in Lampeter, Ceridigion.
10.16. Based on these findings, the development proposals are not expected to lead to any localised material off-site highways issues on the adjacent transportation network. The provision of the proposed development offers a good opportunity to enhance the local area and should be supported by the local highway authority.
10.17. It is therefore concluded that the impact has been fairly and reasonably addressed and there should be no reason for highways related objection to the proposed development.

## Appendix A

## Pre-application Response

Cyngor Sir
CEREDIGION
County Council

Russell Hughes-Pickering<br>Swyddog Arweiniol Corfforaethol : Economi ac Adfywio Corporate Lead Officer : Economy and Regeneration<br>Neuadd Cyngor Ceredigion, Penmorfa, Aberaeron. SA46 OPA www.ceredigion.gov.uk

|  | Dydaliad | 23/10/2020 |
| :---: | :---: | :---: |
| Mr Dan Templeton, | Cotynnwch am | Rhydian Williams |
| Email: dan.templeton@planningpotential.co.uk | Linell uniongrchol | 01545574104 |
|  | Fyy nghy | Q200146 |
|  | Elich chy |  |
|  | $\underset{\substack{\text { Ebost } \\ \text { Email }}}{\text { a }}$ | Rhydian.williams2@ceredigion.gov .uk |

Dear Mr. Templeton,

## RE: Erection of Class A1 Retail Food store, with associated access \& car parking, improvements to existing sports pitch and listed cricket pavilion.

Pre-application advice enquiry reference no: Q200146.
I refer to the above mentioned pre-application and would provide you with the following comments:

## Relevant planning History

No recent relevant planning history on site

## Relevant development plan policies

On the 25th April 2013 the Council resolved to formally adopt the 'Ceredigion Local Development Plan' (LDP). The LDP can be inspected on the website via the following link; https://www.ceredigion.gov.uk/index.cfm?articleid=4761
Hard copies of the LDP are available for viewing at our offices in Penmorfa, Aberaeron, or within community libraries throughout the authority.

The following development plan policies will be considered during the assessment of your proposal.

S01: Sustainable growth
S02: Development in Urban Service Centres
LU12: Employment proposals on non-allocated sites
LU18: Retail Proposals Countywide

[^1]Prif Weithredwr / Chief Executive :
Cyfarwyddwr Corfforaethol / Corporate Director :

Eifion Evans
Barry Rees

LU19: Retail Proposals in Urban Service Centres
LU22 Community Provision
DM03 Sustainable Travel
DM04 Sustainable Travel Infrastructure as a Material Consideration
DM05 Sustainable Development and Planning Gain
DM06 High Quality Design and Place Making
DM08 Bilingual Signs and Place Names
DM09 Design and Movement
DM10 Design and Landscaping
DM11 Design for Climate Change
DM13 Sustainable drainage systems
DM14 Nature Conservation Ecological Connectivity
DM15 Local Biodiversity Conservation
DM20 Protection of Trees, Hedgerows and Woodlands

## Relevant supplementary planning guidance

The following supplementary planning guidance is relevant for your development and should be considered during the design and planning stage.

Built Environment and Design SPG
Nature Conservation SPG
Ceredigion County Council Parking Standards SPG
Transport Assessment SPG
The above SPG's can be found on the Ceredigion County Council website via the following link: https://www.ceredigion.gov.uk/index.cfm?articleid=21419

## Relevant National Planning Policy

Planning Policy Wales (Edition 10, December 2018)
Technical Advice Note 4: Retail and Commercial
Technical Advice Note 11: Noise

Technical Advice Note 16: Sport Recreation and Open Space
Technical Advice Note 18: Transport
Technical Advice Note 23: Economic Development
Technical Advice Note 24: The Historic Environment

## Initial assessment of the proposal

The application site is positioned within the settlement of Lampeter and the site is currently predominantly greenfield being used as a sports pitch owned by the University. There is a pavilion building on site which is grade II listed. Access onto site is via an access point to the North East onto the adjoining main road. The application site is flat to gently sloping in nature and a stream runs to the western boundary which results in part of the site adjacent to the stream being in a C2 flood zone.

I note from your pre app that you are seeking advice on a proposed new Aldi food store, associated car parking spaces, new access point off Pontfaen Road, small food village, together with the improvement of the existing pavilion building, soft landscaping and a new multi-purpose playing pitch.

As part of the pre app key consultees have been consulted including Highways, Drainage and the planning ecologist and their comments are outlined below. Also the forward planning section have also provided detailed comments on the proposal as following;

## Policy comments

## Economic Benefit

The wider economic benefit of the proposal and details of the level of job creation resultant from the proposal will be considered in the context of strategic policies S 01 and S02.

## Retail Impact Assessment

Whilst the proposed site is within the development boundary for Lampeter, it is outside of the Town Centre Boundary and exceeds 800 m 2 gross floorspace. Therefore in accordance with criterion 5 of policy LU18, a Retail Impact Assessment is required (See also PPW10 Para 4.3.254.3.29). This assessment should address:

- The sequential test (See PPW10, Para 4.3.18-4.3.24)
- Whether the proposal would lead to an oversupply of convenience goods (See criterion 3 of policy LU18)
- The likely impact of the development on existing retail provision within the Service Centre (See criterion 2 of Policy LU18)
- The individual or cumulative impact on the vitality and viability of the existing town centre (See criterion 3 of Policy LU19)


## Sequential Test

In the context of the sequential test, the proposed site is considered to be an edge of centre location. As part of the sequential test, detailed consideration should be provided for a range of alternative sites to include:

- Part of E0501 - Land to rear of Gwili Jones Tractors
- Part of E0501 - Land adjacent A485 Tregaron Road
- Part of H0505 - Council owned open space
- University owned land on Brongest Road
- Re-development of existing Co-op store site
- Re-development of existing Sainsbury's store site

Agree that other than the existing Sainsbury's store, there are no alternative site opportunities within the Town Centre Boundary.

## Retail Need

Settlement Group Statement 05: Lampeter identifies a need for 352 sqm net of comparison floorspace, 548 sqm net of convenience and 548 sqm net of bulky goods floorspace between 2007 and 2016, although no specific sites are allocated.

Lampeter already has two substantial A1 retail outlets, namely a Sainsbury's within the town centre and Co-op at the southern gateway to the town.

The SOUTH WEST WALES REGIONAL RETAIL STUDY by Carter Jonas, February 2017 is the most up to date evidence in relation to retail needs available. The study states that; 'Lampeter attracts a reasonable proportion of convenience for a centre of its size,' which indicates that sufficient convenience goods provision already exists within the town.
The study goes on to conclude that; 'There is limited capacity for new convenience floorspace over the study period due to committed retail floorspace,' and that; 'In terms of accommodating growth within the County, the study concluded the following for each centre: Lampeter - need for new retail floorspace in Lampeter is largely influenced by inflow from visitor expenditure, but also from the centre's relatively high student population. As such forecast need for new retail is supported by students and visitor inflow. The Sainsbury's foodstore serves as an important anchor for attracting shoppers and supporting linked trips with other services. The health check assessment identifies the centre 'healthy'. However, vacancies have increased in recent year along with a decline retail offer. In addition, food \& drink provision is also currently underrepresented.'

The study recommends a 5 tier retail hierarchy for the region, within which Lampeter is identified as a Level 2 - Primary Town Centre.

The study sets out details of a Convenience Goods Market Share analysis undertaken by NEMS Market Research through a household telephone interview survey. Table 4.1 of the Study identifies Lampeter as zone 12 covering postcodes SA40 9 and SA48 7/8 with a 2016 population forecast of 12,552 .

Table 1, Appendix 2 identifies Sainsbury's, Lampeter as having 6.4\% market share of Ceredigion's Catchment and $36.2 \%$ market share of Zone 12. It also identified the Co-op Lampeter as having $3.5 \%$ market share of Ceredigion's Catchment and $21.3 \%$ market share of Zone 12. Together, these stores have just shy of $10 \%(9.9 \%)$ of the convenience goods market share for Ceredigion which is considered sufficient for Lampeter given its status as the $3^{\text {rd }}$ largest retail centre in Ceredigion.

The quantitative retail needs assessment included within the study shows that between 2016 and 2036, the Convenience goods Capacity (sqm net) for both foodstore and Local supermarket/discounter formats in Ceredigion will decline. Whilst the forecast indicates that there may be minimal floorspace capacity in Lampeter for Foodstore or Local supermarket/Deep Discounter Format later in the study period ( 27 and 55 sqm net in 2036 - See Tables 11.2 and 11.3), this is outweighed by an overall decline in capacity in the larger centres namely Aberystwyth
and Cardigan and in no way indicates a need for the scale of development proposed being 2,200sqm Convenience Deep Discounter (Aldi). Para 11.6 states; '...The forecasts show that there is no capacity to support new convenience floorspace over the forecast period (2016 to 2036). This is due to the scale of convenience floorspace planned across the County, the estimated turnover of which absorbs all forecast residual expenditure.'
The study also includes a town centre health check for Lampeter which states:
8.10 Lampeter is a university town that also has an important role as the main retailing, administration, educational and business centre for a large rural area within both Ceredigion and Carmarthenshire Counties.
8.11 The centre is focused around the main road junction of A475 and A482 and is generally an attractive and successful centre. It offers a good mix of independent retailers, many of who have been trading in the town for many years and national multiples. There is evidence of some investment and new openings, particularly in the convenience sector. However, vacancies have been increasing and the number of comparison retailers has declined. The food \& drink sector is also under-represented.

The evidence outlined above comes from the regional study from 2017. Subsequent to the preparation of the study, there have been further significant changes to retail trends and their impact for high streets with increasing on-line spending and home delivery. The vitality and vibrancy of the high street has been further compromised due to the current Covid 19 pandemic resulting in reduced footfall levels within town centres. The Council therefore intends to update the town centre health checks.

In relation to the Food Village concept for temporary food outlets, incubator units for the sector and future training opportunities, the opportunity is recognised in para 8.11 and 12.46 of the study and would further support the town's popular annual food festival. However, there are concerns that a food village in the proposed location would further detract from the town centre and the study also highlights the recent increase in vacancies.

Para 3.12 of the LDP AMR 2019 stated: 'According to the Welsh Retail Consortium - Springboard Footfall and Vacancy Monitor, Footfall and vacancy rates across Wales have fluctuated significantly over recent years, realising a significant drop in footfall in 2011, which coincided with overall vacancy levels topping 13\%. Since then subsequent increases, over and above those experienced throughout the UK have been realised and significant improvement in footfall levels across Wales has been achieved since July 2013. However early 2018 footfall decreases in town centres demonstrated a drop, with February seeing a $2.3 \%$ fall on last year's figures, snowy conditions over winter may have contributed to the decline. Signs of continued consumer uncertainty over the economic outlook are reflected in a further 4.8\% decline from June 2018 to June 2019.'

The decline in town centre footfall indicates a worrying trend for town centre vitality, and is one which the Covid 19 pandemic is likely to have exacerbated.

The AMR SA Indicator:12a - Encourage a vibrant and diversified economy considers the percentage of premises vacant in the town centres. In 2019 Lampeter has an $8.8 \%$ vacancy rate within its town centre. This was slightly below the average shop vacancy rate of $9.7 \%$ across all of Ceredigion's Town Centres combined.

The vacancy rate in Lampeter according to the latest survey in February 2020 was 10.5\%, however it is likely that this may have increased further since the Covid 19 pandemic hit. With an increasing vacancy rate in Lampeter town centre, it could be argued that investment would be better spent offering a fund for vacant units within the town centre to re-develop and open as food outlets/incubator units.

During the examination of the Ceredigion LDP, the Inspector held a hearing session to consider retail need in Lampeter. At the time in 2012, Sainsbury's challenged the robustness of the CACl 2008 Retail needs study for Lampeter. The CACI study (2008) demonstrated that there was limited capacity for additional convenience, comparison and bulky goods floorspace. In order to independently test the conclusion in relation to convenience goods, NLP were commissioned to conduct Convenience Capacity Sensitivity Testing in Lampeter. The NLP Report, 2012 agreed with the conclusions of the CACI 2008 Report that there was only limited capacity for convenience goods space and that an allocation for such a use would be inappropriate. The Independently appointed Planning inspector also agreed that this evidence was robust and that the Council was justified in their approach by not including a retail allocation within Lampeter in the LDP. The latest study by Carter Jonas 2017 also concludes that the remains limited capacity for convenience goods in Lampeter. Together, these 3 studies amount to a substantial body of evidence that there is very limited need for additional convenience goods floorspace in Lampeter at the present time, and that there is no evidence of need for the 2,200m2 A1 store proposed.

## Loss of open space

Policy LU22 seeks to resist the loss of open space unless alternative provision of at least equivalent local community value can be provided either within or adjoining the settlement. Criterion 2 i. goes on to require that; 'In relation to open space specifically, the alternative should be an enhanced provision which is preferably located within close proximity to the existing provision.' In addition, criterion 2.ii. states that unless; It can be demonstrated that existing level of community provision is inappropriate or surplus to the community needs of that settlement

The existing open space provision is in the region of 2.14 Ha according to the Candidate Site submission CS00138. It forms playing fields owned by the University of Wales Trinity St Davids and together with its boundaries which host a number of Tree Preservation Orders, forms an important green infrastructure asset within the town of Lampeter.

The playing fields have been used for a number of sports including cricket and rugby. Furthermore, discussion with the local member relating to the candidate site proposal indicated that the community through the local soccer club would like to secure use of the field. This indicates that the provision is not surplus to the needs of the community and should therefore be retained for such purposes.

Other than this site, there is no other community accessible playing fields for cricket within Lampeter. Lampeter Rugby Football club has two pitches and there are also school playing fields, however they are reserved for use by the school. Alternative provision should accommodate a range of sports which have historically taken place at this location and for which there is community need to include; Football, Rugby and Cricket. The proposal as presented does not appear to accommodate the sport of cricket.

Furthermore, the recently prepared Green Infrastructure Assessment in para 5.5.4 identifies a key opportunity to protect this green infrastructure asset by seeking to designate is as a 'Village Green' and Local Nature Reserve. This proposal reflects the sites importance for the ecological network within the town and as accessible open space.

The LDP examination hearing session 5 also considered the LDP's failure to allocate the University Playing fields for retail or retail-led mixed use. Reasons for the site being an inappropriate location for allocation include:

- The important recreational facility it offers
- The important nature conservation element found on site.
- Trees located around the edge of this site are under Tree Preservation Orders and are also a UKBAP priority. If development were to occur in this location most, if not all the trees would need to be removed in order to gain the necessary visibility splays, this would not be acceptable.
- Half of the site is located within the C2 flood zone, though it is acknowledged that this would not preclude development.
The papers presented to the hearing session explain that the playing fields are used by Lampeter
Town Cricket Club and that Lampeter Rugby Football club had also expressed an interest in using the fields for training purposes. This indicates a historic demand within the community to retain this sports facility.
Policy LU22 requires a report to be submitted with any planning application for the change of use or loss of facility explaining why the loss or change of use is justifiable.


## Impact on the Listed Building and its setting

Whilst the site is outside of the town's conservation area, the playing fields form an important historic element of the built environment in Lampeter, directly linked to the oldest university in Wales and forming part of the university's campus within the town.

Central to the south of the site and to the historic development of the site is the Pavilion which is a grade illi listed building. This building is designated as a listed building; 'for its special architectural interest as an ambitious and especially well-preserved early $20^{\text {th }}$ Century sports pavilion, important for its special historic interest as an unusual example of this type of building.' The boundary walls and gated entrances to the playing fields are considered to constitute part of the curtilage of the listed building and would be detrimentally impacted upon by the proposal to create an access onto the A475.

Whilst the sensitive repair of the Pavilion building is needed, there are concerns that the ALDI store structure would adversely impact and overwhelm the listed building and its setting. The proposal would significantly change the historic relationship between the pavilion and the playing fields which it serves, as it would no longer offer a central viewing point for sports activity taking place. The scale and height of the proposed Aldi store in such close proximity to the listed building would overshadow its current presence within its curtilage and stature as a grand pavilion serving a valued sports facility.

Future maintenance and repair of the listed building and its curtilage objects and structures (preservation of the boundary walls and gates) should be addressed within a management plan submitted with any future planning application.

## Flooding

Part of the site is within the C2 flood zone due to the Nant Creuddyn running along the western edge of the proposed site. There are concerns that development of this open space could lead to increased surface water run-off which would exacerbate the flooding issue in the area and potentially lead to greater incidences of flooding on the part of the site proposed for a multi-use sports facility. Whilst the multi-use sports facility is not considered a highly vulnerable form of development in accordance with TAN15, and a SUDS/biodiversity area is included within the indicative layout plan, assurances that the overall proposal would not lead to a situation where the community use element of the scheme is compromised due to flooding on a regular basis. SAB approval should be sought prior to planning application stage.

## Other Constraints for consideration

- Afon Teifi Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI).
- SLA 7: Teifi Valley
- Tree Preservation Orders - Horse chestnut trees


## Planning ecology

There are a number of considerations and constraints that will need to be taken into account with this proposal).

To begin with this development may be subject to an Environmental Impact Assessment under Schedule 2 of The Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017.

The scope of this should include the following (at a minimum):

- Preliminary Ecological Appraisal - this must include:
$\rightarrow$ Otter survey of the Nant Creuddyn that runs adjacent to the site, to include survey 100 m upstream and downstream of the development area (records within 500m);
$\rightarrow$ Water vole survey of the Nant Creuddyn, to include survey 100 m upstream and downstream of the development area (records within 1 km );
$\rightarrow$ Assessment of impacts on migrating or breeding fish in relation to noise and vibration from construction and operation of the development (Atlantic salmon, brown trout and eel records within metres of the proposal);
$\rightarrow$ Badger survey;
$\rightarrow$ Bat survey of the trees and the pavilion building;
$\rightarrow$ INNS survey along Nant Creuddyn and on the site;
$\rightarrow$ Survey of hedgerows on site, particularly in relation to removing/translocating to provide the required access/visibility splay;
$\rightarrow$ Mitigation for any identified impacts to protected species/habitats e.g. hedgerow translocation strategy, habitat compensation, reasonable avoidance measures for any identified protected species.
- Habitats Regulations Assessment (under Regulation 63 of the Conservation of Habitats and Species Regulations 2017)
$\rightarrow$ Of the Afon Teifi SAC which is hydrologically connected to the site.
$\rightarrow$ This will require additional information to be able to complete the assessment such as Pollution Prevention Plan (see below for CEMP)
- Trees:
$\rightarrow$ The trees around the development area are subject to TPOs
$\rightarrow$ If any trees are to be removed these will need to be subject to the appropriate arboricultural surveys and be checked for their suitability for roosting bats (as above).
$\rightarrow$ Suitable root protection zones will need to be calculated using the British Standard and measures put in place to protect these both during the construction and operational phase.

Additionally the following will be required:

- Construction Environmental Management Plan - this can encompass any mitigation required, as identified from the PEA and other surveys (see final point below) Details of the persons and bodies responsible for activities associated with the CEMP and emergency contact details;
$\rightarrow$ A description of the construction methods to be used, details of materials to be used, and how construction waste generated will be managed;
$\rightarrow$ Construction programme/timetable including estimated duration of construction activities and details of restrictions to be applied;
$\rightarrow$ Traffic Management: details of site deliveries, plant to be used on site, provision of wheel wash facilities (see pollution prevention and biosecurity risk assessment below);
$\rightarrow$ Details of measures to minimise nuisance including noise and vibration from excavation activities, dust control, and control of artificial light spillage;
$\rightarrow$ Method(s) for site clearance;
$\rightarrow$ Method(s) for managing site construction drainage;
$\rightarrow$ Pollution prevention plan following the Guidance for Pollution Prevention (GPP), including appropriately sized containment and stand-off distances between storage areas (of spoil, oils, fuels, concrete mixing and washing areas) and any watercourse or surface drain;
$\rightarrow$ Pollution incident response plan following GPP 21 including details of emergency spill procedures and incident response plan.
$\rightarrow$ Details of soil management methods including topsoil removal, storage and amelioration for re-use (methods should follow BS 4428:1989 Code of practice for general landscape operations (excluding hard surfaces);
$\rightarrow$ Details of hedgerow protection - following BS5837:2012 Trees in relation to design, demolition and construction. Recommendations;
$\rightarrow$ Biosecurity Risk Assessment for INNS including methods for management of any known to be present or where there is potential for introduction to the site (e.g. accidental via contaminated machinery, especially tracked vehicles);
$\rightarrow$ Details for managing the biodiversity interest at the site including avoidance and mitigation measures, pre-commencement of works survey schedule, maintenance and enhancement for protected species and habitats; role of ECoW to monitor and provide guidance for compliance with approved plans, the EMP and appropriate environmental regulations.
- Lighting plan - of the development once it is in operation to include locations, levels, lightspill, timing. No lighting should be directed towards any habitats on site.
- Landscaping, ecological enhancements and management plan - to fulfil the Section 6 Environment (Wales) Act 2016 Biodiversity Duty
This should include at a minimum:
$\rightarrow$ Native tree and shrub planting, planting for pollinators across the development areas. This must include species lists, planting plans, numbers, planting sizes etc.
$\rightarrow$ Green roof to replace area lost for bat foraging and enhancements for pollinators;
$\rightarrow$ Management plan for wildlife friendly management of green spaces. To include methods, management schedule and who is responsible for implementing this plan;
$\rightarrow$ Bat roosting provision and bird roosting provision - could be incorporated into the structures of the food village buildings or the cricket pavillion;
$\rightarrow$ Improvement of the river corridor for wildlife and how this will be protected from the effects of the development including people;
$\rightarrow$ Better linkage of SUDs/Biodiversity area with the habitats on site/adjacent to the site that are to be retained e.g. the Nant Creuddyn and the tree lines - leaving buffer strips and connectivity strips;
$\rightarrow$ Amphibian hibernaculae and habitat piles to support amphibians using the SuDS wetlands on site;
$\rightarrow$ Green infrastructure connections with the wider landscape e.g. joining up walking routes, habitat creation to improve habitat connectivity


## Highways

I acknowledge receipt of the pre-application submission and highlight the relevant policies and guidance applicable.

## Policy Context

Ceredigion Local Development Plan (LDP) 2007-2022: Policies:

DM03 Sustainable Travel, A Transport Assessment should be provided at the thresholds set out in Supplementary Planning Guidance (SPG).
DM04 Sustainable Travel as a Material Consideration
DM05 Sustainable Development and Planning Gain.
DM06: High Quality Design and Placemaking, which inter-alia requires that -
Development should have full regard, and positively contribute to the context of its location and surroundings. Development should reflect a clear understanding of design principles, the local physical, social, economic and environmental context.

And that the development should -
5. Provide a safe environment by ensuring that the design of buildings and associated routes and open spaces consider safety principles;

Manual for Streets.
Supplementary Planning Guidance (SPG) Ceredigion County Council Parking Standards. Parking provision for all modes of transport should be in

Technical Advice Note (TAN 18): Transport (2007).
Technical Advice Note (TAN) 12: Design (2014)
Design Guidance - Active Travel (Wales) Act 2013
Welsh Transport Appraisal Guidance (WelTAG).

## Appraisal

The highway and transportation appraisal of the submission has regard to the highway network serving the site, access(es) with the public highway and internal parking and turning arrangements. Planning Policy Wales TAN 18 states that decisions should take into account whether safe and suitable access to a site can be achieved; and LDP Policy DM06 which inter alia requires new development to provide a safe environment by ensuring that the design of buildings and associated access routes implement fundamental safety principles. Policies DM03 and DM04 and DM05 consider Sustainable Travel. The Active Travel Act, and the Well Being Act place a duty on the Authority to consider connectivity.

The submission provides insufficient information to enable the proposal to be appraised. There is a requirement for a Transport Assessment to enable the proposal to be fully appraised. Where the TA reveals the need for a Transport Implementation Strategy this will need to be secured through a planning obligation.

The site layout plan should include dimensions of carriageway /footway width, junction visibility envelopes in both the horizontal and vertical plane and car parking provision. Visibility splays for emerging vehicles and forward visibility are crucial to provide drivers and pedestrian with the time to make decisions and take appropriate actions in reducing the risk of conflicts.

The development shall provide adequate space and facilities within the development site to reduce the risk of vehicles parking or backing up into the highway. This should include a system of free flow traffic management of vehicles within the site. Access by cycle and foot should be planned to avoid conflict areas with motorised vehicles with good visibility for users throughout.

The information provides not enough evidence to the LPA that the proposed development can be sustainable drained. The following additional information should be provided:

- how roof water from the Aldi discount food store will be dealt with (Green Roof/Rain Water Harvesting would be possible with overflow to swales and into SuDS/Biodiversity area?) source control/site control/regional control
- surface water from the 115 customer parking area (surface water disposal via permeable surface/swales into SuDS/Biodiversity area?) - source control/site control/regional control
- Site access road from Pontfaen Road (surface water disposal via permeable surface or discharge into swales alongside the access road with overflow into SuDS/Biodiversity area ?) -site control/regional control
- Small food village (roof water into raingardens with overflow into SuDS/Biodiversity area) source control/site control/regional control
- Food village parking surface water disposal via grass protection mesh/gravel path way acceptable as drained as natural as possible

The soil is classified as freely draining slightly acid loamy soils and is therefore suitable for infiltration devices.

The surface water system for the site need to be calculated for a 1 in 100 year storm event, 6 hours storm event, $30 \%$ climate change and $10 \%$ urban creep.

The SuDS/Biodiversity area should not be used as an end-of pipe solution to discharge surface water. The implementation of the SuDS Management Train is essential. All surface water has to be dealt onside and the proposed SuDS Biodiversity area should not be used as an end-of-pipe solution but as the regional control.

An overview how surface water will be dealt with via a drainage strategy implementing the information requested above would be welcomed.

SuDS Approval will be required. No development can commence until approval has been granted by the SuDS Approval Body (SAB) as well as planning. It is therefore recommended that the applicant contact the SAB as soon as possible to discuss the SuDS Application. Further information can be found on Ceredigion County Council's website
http://www.ceredigion.gov.uk/resident/planning-building-control-and-sustainable-drainage-body-sab/sustainable-drainage-approval-body-sab/.

## Other considerations and requirements

## Layout and Design

There is insufficient information and detail on the submitted plans to enable any detailed comments on layout and design. From the masterplan provided I am concerned regarding the lack of pedestrian access onto site and the single width carriageway which seems to serve the pavilion, sports parking and food village parking which would also conflict with highway policy.

In regards to proposed materials, an effort should be made to use materials which are typically found in the area in order to deliver high quality design and place making in line with policy DM06 of the LDP. May I also suggest that any external signs are bilingual.

The proposed development is deemed to fall within the definition of major development and as such a pre-application consultation document (PAC) must be submitted as part of any valid planning application. Guidance on PAC can be found on the Welsh Government website.

## Scoping opinion

This development may be subject to an Environmental Impact Assessment under Schedule 2 of The Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017 and as such you may want to submit a formal scoping opinion to inform the scope of the required Environmental Assessment.

Listed building and extent of curtilage
A key consideration in any application submitted on site is the effect the development will have on both the setting of the listed building and directly on the fabric of the listed building and any features which relate to it and are deemed to fall within its curtilage. To distinguish what elements of the application site fall within the curtilage of the listed pavilion, consideration has been given to relevant case law, one of the most relevant in this case being;

Attorney General ex rel Sutcliffe v Calderdale MBC, 1982,

LJ Stephenson established three tests to determine curtilage listing:

## 1. Physical layout;

2. Ownership, historic and current; and
3. Use or function, historic and current.

I have broadly considered the tests and my comments are as follows;

1. The playing field related directly to the sports pavilion, with the pavilion benefiting from a central position overlooking the whole field. The gates adjacent to the main road and hedgerow with stone bank form an integral part of the curtilage of the site.
2. It is my understanding that the university has owned both the playing fields and pavilion since its erection.
3. The use of the pavilion and playing fields are directly related as one directly serves the other.

Careful consideration will be required to clearly set out the curtilage of the listed building and what features relate to the listing. If it is deemed that who whole playing field including access gates and boundary hedge/wall is within the curtilage, then listed building consent will be required for any works which seek to change these features.

However, if it is the case that it is clearly demonstrated that these features (access gates and boundary hedge/wall etc.) are not within the curtilage of the listed building, listed building consent will therefore not be required for the proposed works (if not directly related to the pavilion) but in line with section 66(1) of the Listed Building and Conservation Area Act 1990, special regard will need to be given to the desirability of preserving the building or its setting, or any feature of historic interest which it possesses. This will need to be detailed in any full planning application and relevant supporting statements submitted.

Should you wish to proceed with a planning application, full planning permission and listed building consent will be required for the for the proposed development. The items listed below will need to be submitted as part of a full planning application and listed building consent.

- Full planning application form and listed building consent.
- Location plan 1:2500, 1:1250 scale with land in ownership outlined in blue and development area outlined in red.
- Existing and Proposed Block plan 1:200 scale with land in ownership outlined in blue and development area outlined in red.
- Proposed Elevations, Plans \& Sections. (Scale 1:100 or 1:50)
- Proposed floor plans. (Scale 1:100 or 1:50)
- Proposed site sections and finished floor and site levels (Scale 1:50 or 1:100) (Unless confirmation there is no change)
- Existing and Proposed Roof Plans (Scale 1:50 or 1:100)
- Landscaping Scheme
- Retail impact assessment
- Heritage impact statement
- Ecological report and additional info as advise above
- Lighting plan
- Drainage strategy/report
- Planning statement
- Transport statement
- Environmental Assessment - EIA
- Additional information as advise above
- The up to date fee schedule can be found on the planning section of the authorities website.


## Conclusion

Having considered the information provided in this pre app in detail, based on the information held by the authority as outlined in the policy comments above, it would seem that the policy principle of retail development on site does not meet the current policy framework and recent studies point to a refusal. It is acknowledged that the proposed development would bring significant inward investment to the town during construction, however it is deemed that the lack of need for such a large retail premises would be to the detriment to existing retail premises within the town.

Furthermore the impact of the development on the setting of the listed building, impact on key features within the curtilage of the listed building, loss of TPO trees, and the loss of a significant portion of the sports fields also weighs heavily against the development. I also question whether the remaining part of the sports field as indicated for investment in your pre app would be compromised by flooding being partly positioned in a c2 flood zone.

It is also deemed that the type of businesses which would be interested in the food village premises would be better served locating in existing vacant retail and commercial units within the town centre. This would help sustain the town centre as a vibrant place to shop and socialise. The location of these units would benefit from limited footfall and passing trade being located to the rear of the Aldi store near the delivery bay, and as such I question whether the location is suitable for such a proposal.

May I remind you that the content of this letter is made without prejudice to any future application.
For further information regarding planning policies please follow this link:

If further guidance is required in regards to this pre app please get in contact by phone or email.
Yours sincerely,
Mr. Rhydian Williams
Swyddog Rheoli Datblygu
Development Management Officer
Ar ran Swyddog Arweiniol Corfforaethol: Economi ac Adfywio
On behalf of the Corporate Lead Officer: Economy and Regeneration

## Appendix B

## Traffic Survey Data

## Lampeter ATC, A475 (Eastern Site)

| Direction: Westbound |  | $\begin{aligned} & \text { HGV } \\ & \begin{array}{l} \text { Gov } \\ \mathrm{am} \end{array} \\ & \hline \mathrm{c} \end{aligned}$ |  | 124 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hour | Tue | Wed | Thu | ${ }^{\text {fri }}$ | ${ }_{\text {sat }}$ | Sun | mon | ${ }^{\text {5.Day }}$ | Ave. |
| Beezining | Oct 12 | Oct 13 | Oct 14 | Oct 15 | Oct 16 | Oct 17 | Oct 18 | Ave. | Ave. |
|  | ${ }_{2}^{6}$ | ${ }_{0}$ | ${ }_{3}^{5}$ | ${ }_{3}$ | 5 | ${ }_{3}^{8}$ | ${ }_{0}^{3}$ | $\stackrel{4}{2}$ | ${ }_{2}^{5}$ |
| 02:00 | \% | 3 | 2 | 1 | 1 | 3 | 1 | 1 | 2 |
| - 03000 | 3 | ${ }_{3}^{2}$ | ${ }_{6}$ | 4 | ${ }_{3}$ | ${ }^{3}$ | 3 | 3 | 3 |
| cosion | 15 | ${ }_{14}^{3}$ | ${ }_{15}^{6}$ | ${ }_{13}^{4}$ | ${ }_{6}^{3}$ | ${ }_{3}^{6}$ | 20 | 15 | 12 |
| o6:00 | 36 | 29 | 31 | 36 | 18 | 7 | 30 | 32 | 27 |
| 07:00 | 112 | 113 | 107 | 89 | 44 | 17 | 91 | 102 | 82 |
| 08:00 | 146 | 180 | 178 | 193 | 83 | 28 | 176 | 175 | 141 |
| 09:00 | ${ }^{121}$ | ${ }_{139}^{139}$ | 132 158 1 | 160 | 159 | ${ }^{46}$ | ${ }^{111}$ | 137 | 127 |
| 10:00 | 126 | 160 | ${ }^{158}$ | ${ }^{140}$ | 174 | ${ }_{110}^{110}$ | ${ }^{137}$ | 114 | 124 |
| 11:00 | 143 | ${ }^{134}$ | ${ }^{167}$ | 175 | 230 | 139 | 162 | 1156 | 164 |
|  | ${ }^{146}$ | ${ }_{138}^{167}$ | 198 <br> 168 <br> 185 | 174 | ${ }_{167}^{167}$ | 134 | 145 | 1.6 | ${ }^{162}$ |
| cision | 151 166 16 | ${ }_{138}^{138}$ | 168 169 169 | 198 <br> 198 <br> 185 | 153 <br> 138 <br> 138 | 120 | 154 156 15 | 162 | 154 154 154 |
| 14500 | ${ }^{296}$ | ${ }_{256}$ | ${ }_{277}^{129}$ | ${ }_{296}^{198}$ | ${ }_{148}^{138}$ | ${ }_{111}$ | ${ }_{270}^{156}$ | ${ }_{279}^{126}$ | ${ }_{236}^{124}$ |
| 16:00 | ${ }^{240}$ | ${ }^{229}$ | ${ }^{248}$ | 262 | 141 | 91 | 235 | 243 | 207 |
| 17:00 | 208 | 190 | 207 | 222 | 160 | 94 | 184 | 202 | 181 |
| 18:00 <br> 19000 <br> 1900 | - 133 | ${ }_{100}^{144}$ | 158 113 | ${ }_{1}^{127}$ | ${ }_{80}^{127}$ | ${ }_{47}^{74}$ | ${ }_{80}^{121}$ | 1205 | ${ }_{93}^{129}$ |
| cision | 104 55 | ${ }_{6}^{100}$ | 113 64 | ${ }_{63}^{127}$ | 80 <br> 35 | 47 | ${ }_{80}$ | cios | 93 <br> 51 |
|  | ¢5 | ${ }_{47}^{62}$ | 64 40 | 63 <br> 35 | ${ }^{35}$ | ${ }_{19}^{34}$ | 46 <br> 30 |  | 51 <br> 32 <br> 2 |
| 22:00 | ${ }_{13}^{26}$ |  | 4 |  | 30 16 | 19 | 14 | 16 | 32 15 |
| 23:00 | 4 | 15 | 7 | 9 | 14 | 1 | 3 | 8 |  |
|  |  |  |  |  |  |  |  |  |  |
| ( | ${ }_{2229}^{2088}$ | ${ }_{22075}^{2007}$ | ${ }_{24157}^{2167}$ | 2239 2500 | 1724 | 1073 <br> 1180 <br> 1 | 1942 <br>  <br> 2128 <br> 1 | ${ }_{2033}^{2073}$ | ${ }^{1880}$ |
| $18 \mathrm{HH}(6-24)$ | 2246 | 2274 | 2440 | 2528 | 1917 | 1194 | 2145 | 232 | 2106 |
| ${ }^{24 H(02024)}$ | 2279 | 2298 | 2475 | 2559 | 1943 | 1220 | 2172 | 2357 | 2135 |
| AM Peak | 08:00 | 08:00 | 08:00 | 08:00 | ${ }^{11000}$ | ${ }^{11: 00}$ | 08:00 | 08:00 | 11:00 |
|  |  |  |  |  |  |  |  | 175 | ${ }^{164}$ |
| PM Peak | 15:00 | ${ }^{15} 500$ | 15.00 | 15.00 | 12:00 | 12:00 | 15.00 | 15.00 | 15.00 |
|  |  |  |  |  |  |  |  |  |  |


| Direction: |  |  |  | $\begin{array}{\|l\|l\|} \hline 176 & \text { avg } \\ \hline 145 \\ \hline \end{array}$ |  | 22 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hour | ${ }_{\text {utie }}^{\text {Tue }}$ | $\underbrace{\substack{\text { Wed } \\ \text { Oct }}}_{\text {Wed }}$ | ${ }_{\substack{\text { Thu } \\ \text { Oct } 14}}$ |  |  | ${ }_{\substack{\text { Sun } \\ \text { Oct17 }}}^{\text {ct }}$ | Mon | S-Day | Ave. |
| 00:00 | 2 |  |  |  | ${ }_{11}$ |  |  |  | 4 |
| 01:00 | 0 | $\bigcirc$ | 3 | 2 | 1 | ${ }_{4}^{4}$ | 3 | 2 | 2 |
| ${ }^{0200}$ | 1 | 2 | 1 | 2 | 2 | ${ }^{3}$ | $\bigcirc$ | 1 | 2 |
| ${ }^{0300}$ | 4 | 1 | 2 | ${ }^{2}$ | 2 | 1 | 2 | ${ }_{2}$ | 2 |
| (04:00 | ${ }_{8}^{6}$ | ${ }_{5}^{8}$ | 6 10 | 10 | ${ }_{9}^{4}$ | ${ }_{5}^{1}$ | ${ }_{15}$ | 7 | ${ }_{9}$ |
| (isiou | 37 | ${ }_{33}$ | ${ }_{58}^{10}$ | ${ }_{42}^{10}$ | 25 | ${ }_{16}$ | 15 57 | 45 | 38 |
| 07:00 | 169 | 134 | 123 | 124 | 47 | 24 | 115 | 133 | 105 |
| 08:00 | 285 | 304 | 285 | 298 | 101 | 34 | 299 | 294 | 229 |
| 09:00 | 160 | 145 | 194 | 198 | 178 | 82 | 146 | 169 | 158 |
| 10:00 | 157 | 190 | 191 | 201 | 191 | 143 | 153 | 178 | 175 |
| 11:00 | 149 | 163 | 197 | ${ }^{173}$ | 229 | ${ }^{141}$ | 144 | 165 | 171 |
| 12:00 | 149 | 147 | 163 | 180 | 126 | 118 | 146 | 157 | 147 |
| ${ }^{13300}$ | 145 | ${ }^{138}$ | 152 | 205 | 130 | 100 | 129 | 154 | 143 |
| 14:00 | 186 | 157 | 206 | 201 | ${ }^{141}$ | ${ }^{117}$ | 168 | 184 | 168 |
| 15:00 | 204 <br> 188 <br> 1 | ${ }_{156}^{212}$ | ${ }_{214}^{212}$ | 215 <br> 185 <br> 185 | ${ }_{132}^{113}$ | ${ }_{97}^{102}$ | ${ }^{216}$ | 212 | 188 |
| cision | 183 200 | 156 210 | 214 195 | ${ }_{202}^{185}$ | - $\begin{gathered}132 \\ 138 \\ 138 \\ 1\end{gathered}$ | ${ }_{81} 97$ | 176 155 1 | 183 192 192 | 163 169 1 |
| 177:00 | 200 128 | ${ }_{164}^{210}$ | 138 <br> 138 <br> 1 | 202 158 | 138 122 | ${ }_{64}^{81}$ | 155 119 | 192 <br> 141 <br> 142 | 119 <br> 128 |
| (1900 | ${ }_{40}^{69}$ | 75 60 | ( 80 | ( ${ }_{50}^{86}$ | ${ }_{41} 79$ | ${ }_{32}^{48}$ | 74 42 | 78 48 48 | 74 <br> 45 |
| 21:00 | ${ }_{21}$ | ${ }^{26}$ | 30 | 18 | ${ }_{29}^{41}$ | ${ }_{23} 23$ | ${ }_{21}^{42}$ | 23 | ${ }_{24}^{45}$ |
| (2, | 9 | 17 | 8 | 20 | 20 | 析 | 13 | 13 | ${ }_{14}^{24}$ |
| 23:00 | 4 | 5 | 6 | 20 | 13 | 6 | 1 |  |  |
| ${ }_{\text {Total }}^{\text {T2H(7-19) }}$ |  |  |  |  |  |  |  | 2162 | 1937 |
| 16\%H(-22) | 2282 | 2314 | 2992 | 2536 | 1822 | 1222 | 2160 | 2357 | 2118 |
| ${ }^{184}(6,24)$ | 2295 | 2336 | 2506 | 2576 | 1855 | 1241 | 2174 | 237 | 140 |
| ${ }^{244(10-24)}$ | 2316 | 2354 | 2530 | 2600 | 1884 | 1263 | 2203 | 2401 | 2164 |
| AM Peak | 08:00 | ${ }^{18}: 00$ | ${ }^{\text {or:00 }}$ | 88.00 | $11: 00$ | 10.00 | ${ }^{08} 800$ |  | 8:00 |
|  | ${ }^{285}$ | 304 | 285 | ${ }^{298}$ | 229 | ${ }^{193}$ | 299 | 294 |  |
| PM Peak | 15.00 | ${ }_{15} 5100$ | 16:00 | 15.00 | 14:00 | 12:00 | 15:00 | 15.00 | 15.00 |
|  |  |  |  |  | 141 | 118 | 216 |  |  |

${ }^{360}$ TSLLItd

Direction: Total Fow

| Hour Beginning | ( $\begin{gathered}\text { Tue } \\ \text { oct } 12\end{gathered}$ | $\begin{aligned} & \text { Wed } \\ & \text { Oct } 13 \end{aligned}$ | $\begin{gathered} \text { Thu } \\ \text { oct } 14 \end{gathered}$ |  | $\begin{gathered} \text { sat } \\ \text { oct1 } \end{gathered}$ | $\begin{gathered} \text { Sun } \\ \text { Oct } 17 \end{gathered}$ | Mon | $\begin{aligned} & \text { 5-Day } \\ & \text { Ave. } \end{aligned}$ | $\begin{aligned} & \text { Ropay } \\ & \text { Ave. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ${ }^{00000}$ | ${ }^{8}$ | 4 |  | 6 | ${ }^{18}$ | ${ }^{16}$ | ${ }^{3}$ | ${ }^{6}$ | 9 |
| (oition | ${ }_{1}$ | 5 | ${ }_{3}$ | ${ }_{3}^{5}$ | ${ }_{3}^{6}$ | \% | 3 1 | ${ }_{3}^{3}$ | ${ }_{3}^{4}$ |
| 03:00 | 7 |  | 6 | ${ }^{6}$ | 6 | 4 | 5 | 5 | 5 |
| 04:00 | ${ }^{13}$ | 1 | 12 | 12 | 7 | 7 | 9 | ${ }^{11}$ | ${ }^{10}$ |
| ${ }^{05} 500$ | ${ }^{23}$ | 19 | ${ }^{25}$ | ${ }^{23}$ | 15 | 8 | 35 | 25 | ${ }^{21}$ |
| 00 | ${ }^{73}$ | 62 | ${ }^{89}$ | ${ }^{78}$ | ${ }^{43}$ | 23 | 7 | ${ }^{78}$ | 65 67 187 |
| -00 | ${ }^{281}$ | ${ }_{484}^{247}$ | 230 463 | 213 | 91 184 1 | ${ }_{62}$ | ${ }^{206}$ | 235 | 187 <br> 370 <br> 37 |
| ¢os:00 | ${ }_{301}^{431}$ | 484 <br> 284 <br> 8 | ${ }_{326}$ | 491 <br> 358 <br> 88 | 184 337 | 128 | 275 <br> 257 <br> 27 | 305 |  |
| 10:00 | 283 | 350 | 349 | 341 | 365 | 253 | 290 | 323 | 319 |
| 11:00 | 292 | 297 | 364 | 348 | 459 | 280 | 306 | 321 | 335 |
| 12:00 | 295 | 314 | 361 | 354 | 293 | 252 | 291 | 323 | 309 |
| ${ }^{13: 00}$ | 296 | 276 | 320 | ${ }^{403}$ | 283 | 220 | 283 | 316 | 297 |
| ${ }^{14: 00}$ | 352 | 314 | 375 | 385 | 279 | 226 | 324 | 350 | 322 |
| 15:00 | 500 | ${ }^{468}$ | 489 | 511 | 261 | 213 | 486 | 491 | 418 |
| ${ }^{16: 00}$ | ${ }^{423}$ | ${ }^{385}$ | 462 | 447 | 273 | ${ }_{188}^{188}$ | 411 | 426 | 370 |
| 17:00 | 408 | 400 | 402 | ${ }^{424}$ | 298 | 175 | 339 | 395 | ${ }^{349}$ |
| 18:00 | ${ }^{261}$ | ${ }_{308}$ | 296 | 304 | 249 | ${ }^{138}$ | ${ }_{240}$ | 282 | 257 |
| 19:00 | ${ }^{173}$ | 175 | 197 | ${ }^{213}$ | 159 | ${ }^{95}$ | 154 | 182 | ${ }^{167}$ |
|  | 95 | ${ }_{173}^{122}$ | 114 | ${ }_{53}^{113}$ | 76 | ${ }_{42}^{66}$ | 88 | - 106 | ${ }_{56}^{96}$ |
| ${ }^{22000}$ | 22 | 31 | 26 | 39 | ${ }^{36}$ | ${ }^{26}$ | 27 | ${ }_{29} 29$ | ${ }^{30}$ |
| 23:00 | 8 | 20 | 13 | 29 | 27 | 7 | 4 | 15 | 15 |
|  | 4123 | 4127 | ${ }_{4}^{437}$ | 4579 |  |  |  |  |  |
| ${ }_{16 H(6,22)}$ | 4511 | 4559 | 4907 | 5036 | 3709 | 2402 |  | 60 | 4222 |
|  | ${ }^{4541}$ | 4610 | 946 | 5104 | 372 | 2435 | 4319 | 4704 | 4247 |
| ${ }^{24 H(0.24)}$ | 4595 | 4652 | 5005 | 5159 | 3827 | 2483 | 4375 | 4757 | 4299 |
| AM Peak | 08:00 |  | 08:00 |  | ${ }^{11: 00}$ | 11:00 |  | 1800 | ${ }^{18,00}$ |
|  |  |  |  |  |  |  |  |  |  |
| PM Peak | 15.00 500 | $\begin{gathered} 15: 00 \\ 468 \end{gathered}$ | $\begin{gathered} 15: 00 \\ 489 \end{gathered}$ | $\begin{gathered} 15: 00 \\ 511 \end{gathered}$ | $17: 00$ 298 | ${ }_{\substack{12: 00 \\ 252}}$ | $15: 00$ 486 | 15.00 491 | 15:00 |

## ampeter ATC，A475（Western Site）

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{10}{|l|}{Direction：Westbund} \& \multicolumn{10}{|l|}{Direction：Eastound} \& \multicolumn{7}{|l|}{Direction：Total flow} \& \multicolumn{3}{|l|}{} \\
\hline \(\underset{\substack{\text { Heur } \\ \text { Beiming }}}{\text { arem }}\) \& （ive \& Wed
Oet
cis \&  \&  \& \({ }_{\substack{\text { sat } \\ \text { Oct16 }}}^{\text {ctic }}\) \& （sun \& \({ }_{\substack{\text { Mon } \\ \text { Oct } 18}}\) \& \({ }^{\text {a }}\) \& Aveay \& \({ }_{\text {Heur }}^{\text {Hegining }}\) \& （Tue \& \({ }_{\substack{\text { Wed } \\ \text { Oct } 13}}\) \& Thu \& \({ }_{\substack{\text { fir } \\ \text { Oft15 }}}^{\text {ctiol }}\) \& \begin{tabular}{c} 
Sat \\
Oct 16 \\
\hline
\end{tabular} \&  \& \(\underbrace{\substack{\text { Mot18 } \\ \text { Oct }}}_{\text {Mon }}\) \& \&  \& \({ }_{\text {Hectin }}^{\text {Heur }}\) \& Tue
Oct 12 \& Wed
Oct13 \& \({ }_{\text {che }}^{\text {Thu }}\) \& \({ }_{\substack{\text { fir } \\ \text { Oft } 15}}\) \& \({ }_{\substack{\text { sat } \\ \text { Oct16 }}}\) \& \({ }_{\substack{\text { Sun } \\ \text { Oct17 }}}\) \& \({ }_{\text {Mon }}^{\substack{\text { Mon } \\ \text { Oct } 18}}\) \& \({ }_{\substack{\text { S．oay } \\ \text { Ave．}}}^{\text {Af }}\) \& \({ }^{\substack{\text { 7．opy } \\ \text { Ave }}}\) \\
\hline 00：00 \& 6 \& 2 \& 5 \& 5 \& 7 \& 7 \& \({ }^{3}\) \& 4 \& 5 \& 00：00 \& \({ }_{2}\) \& 2 \& \({ }^{2}\) \& 1 \& 11 \& 7 \& 0 \& \& 4 \& 00：00 \& \({ }^{8}\) \& 4 \& 7 \& 6 \& 18 \& 14 \& \({ }^{3}\) \& 6 \& \({ }^{9}\) \\
\hline 01：00 \& 2 \& 。 \& 3 \& \({ }^{3}\) \& 5 \& 2 \& 1 \& 2 \& 2 \& 01：00 \& 0 \& \(\bigcirc\) \& 3 \& 1 \& 1 \& 2 \& 3 \& 1 \& 1 \& 01：00 \& \({ }^{2}\) \& \({ }_{5}\) \& 6 \& \({ }_{4}^{4}\) \& 18 \& \(\stackrel{14}{4}\) \& 4 \& 3 \& 4 \\
\hline 02：00 \& 0 \& \({ }^{3}\) \& 1 \& 1 \& 1 \& 2 \& 1 \& 1 \& 1 \&  \& \({ }_{1}\) \& \({ }^{2}\) \& 1 \& 2 \& 1 \& \({ }^{3}\) \& 0 \& 1 \& 1 \&  \& 1 \& 5 \& \({ }_{5}\) \& \({ }_{6}\) \& \({ }_{5}^{2}\) \& \({ }_{4}\) \& \({ }_{5}^{1}\) \& \({ }_{5}^{2}\) \& \begin{tabular}{l}
3 \\
5 \\
\hline
\end{tabular} \\
\hline （is \& 2 \& \({ }_{3}\) \& \({ }_{6}\) \& \({ }_{4}^{4}\) \& 3 \& \({ }_{6}\) \& \({ }^{3}\) \& \({ }_{4}\) \& \({ }_{4}\) \&  \& \({ }_{6}^{4}\) \& \({ }_{7}\) \& 3 \& \({ }_{7}\) \& 4 \& 1 \& 8 \& \({ }_{6}\) \& 5 \&  \& \({ }_{13}\) \& 3
10 \& \({ }_{9}\) \& \({ }_{11}\) \& \({ }_{7}^{5}\) \& \({ }_{7}^{4}\) \& \({ }_{8}^{5}\) \& 5
10
10 \& \({ }_{5}^{5}\) \\
\hline 05：00 \& 15 \& 14 \& 15 \& \({ }^{13}\) \& \({ }^{6}\) \& 3 \& \({ }^{20}\) \& 15 \& 12 \& 05：000 \& 12 \& 4 \& 9 \& 8 \& 9 \& 5 \& \({ }^{14}\) \& 8 \& 8 \& 05500 \& \({ }^{21}\) \& \({ }^{18}\) \& \({ }^{24}\) \& \({ }^{21}\) \& 15 \& 8 \& \({ }^{34}\) \& 24 \& \({ }^{20}\) \\
\hline 06：00 \& 32 \& \({ }^{30}\) \& 30 \& \({ }^{34}\) \& 17 \& 7 \& \({ }^{31}\) \& 31 \& 26 \& 06：000 \& 42 \& \({ }^{30}\) \& \({ }_{54}^{54}\) \& \({ }^{43}\) \& \({ }^{23}\) \& \({ }^{14}\) \& 54 \& 45 \& 37 \& 06：00 \& \({ }^{74}\) \& \({ }_{60} 6\) \& \({ }_{84}^{825}\) \& 77 \& 40 \& \({ }^{21}\) \& 85 \& \({ }_{76} 7\) \& \({ }^{63}\) \\
\hline \({ }^{07} 700\) \& \({ }^{103}\) \& 103 \& 103 \& 77 \& 39 \& 16 \& 79 \& \({ }_{93} 93\) \& 74 \& 07：00 \& 149 \& 135

238 \& ${ }^{122}$ \& 108 \& 39 \& ${ }^{22}$ \& ${ }^{101}$ \& 123 \& 97 \& 年：000 \& ${ }^{252}$ \& 238
430 \& 225

245 \& 185
1625 \& 78
152 \& ${ }_{58}^{38}$ \& ${ }_{180}^{183}$ \& ${ }_{216}^{216}$ \& 171 <br>

\hline 08：00 \& ${ }_{129}^{129}$ \& ${ }_{115}^{157}$ \& 157 \& ${ }_{131}^{161}$ \& ${ }^{62}$ \& ${ }_{38}^{28}$ \& 159 \& 153 \& 122 \&  \& | 282 |
| :--- |
| 132 |
| 1 | \& | 283 |
| :--- |
| 130 |
| 18 | \& 288

171 \& | 300 |
| :--- |
| 166 |
| 1 | \& 90

170 \& | 30 |
| :--- |
| 75 | \& 284

130

180 \& \begin{tabular}{l}
287 <br>
148 <br>
\hline 1

 \& ${ }^{222}$ \&  \& ${ }_{\substack{411 \\ 239}}$ \& 

440 <br>
205 <br>
\hline

 \& ${ }_{2}^{495}$ \& ${ }_{\substack{461 \\ 305}}$ \& ${ }_{277}^{152}$ \& ${ }_{\substack{58 \\ 113}}$ \& 

443 <br>
230 <br>
\hline
\end{tabular} \& 460

263 \& | 34 |
| :--- |
| 243 |
| 243 | <br>

\hline coion \& ${ }_{106}^{107}$ \& ${ }_{127}^{115}$ \& ${ }_{135}^{124}$ \& ${ }_{121}^{139}$ \& 107
198 \& 38
114

114 \& | 100 |
| :--- |
| 108 |
| 10 | \& 117

119 \&  \& 09000
10：00 \& 132
129 \& 130
137 \& 171
169 \& ${ }_{179}^{166}$ \& 170
162 \& 75
131 \& 130
134 \& 146
154

1 \& 1 | 139 |
| :--- |
| 152 | \& coion $\begin{aligned} & \text { 0900 } \\ & \text { 1000 }\end{aligned}$ \& ${ }_{235}^{239}$ \& 245

284 \& | 295 |
| :--- |
| 304 | \& 305

300 \& ${ }_{310}^{27}$ \& ${ }_{245}^{113}$ \& | 230 |
| :--- |
| 242 | \& 263

273 \& 隹273 <br>
\hline 11：00 \& 118 \& 121 \& 160 \& 149 \& 205 \& 119 \& ${ }^{148}$ \& 139 \& 146 \& 11：00 \& ${ }^{123}$ \& 147 \& 171 \& 139 \& 173 \& 125 \& 115 \& 139 \& 142 \& 11：00 \& ${ }^{241}$ \& 268 \& ${ }^{331}$ \& 288 \& ${ }^{378}$ \& 244 \& 263 \& 278 \& ${ }^{288}$ <br>
\hline 12：00 \& ${ }^{130}$ \& ${ }^{121}$ \& 172 \& ${ }^{126}$ \& 161 \& ${ }^{125}$ \& 122 \& 142 \& 142 \& 12：00 \& ${ }^{115}$ \& 119 \& 142 \& 136 \& 117 \& 104 \& ${ }^{137}$ \& 130 \& 122 \& 12：00 \& ${ }^{245}$ \& ${ }^{260}$ \& ${ }^{314}$ \& ${ }^{282}$ \& 278 \& ${ }^{229}$ \& ${ }^{259}$ \& 272 \& ${ }^{267}$ <br>
\hline ${ }^{13.000}$ \& ${ }_{128}^{128}$ \& ${ }^{135}$ \& 149
160
160 \& $\begin{array}{r}168 \\ 168 \\ \hline 1\end{array}$ \& ${ }_{136}^{136}$ \& ${ }^{106}$ \& ${ }^{130}$ \& 142 \& \& coin \& ${ }_{1}^{122}$ \& ${ }_{115}^{115}$ \& 135

167 \& ${ }_{171}^{176}$ \& 1109 \& ${ }^{96}$ \& ${ }_{109}^{109}$ \& \begin{tabular}{l}
130 <br>
158 <br>
158 <br>
\hline 122

 \& 122 \& cineo \& ${ }_{316}^{250}$ \& 250 \& ${ }^{284}$ \& 

339 <br>
345 <br>
\hline
\end{tabular} \& ${ }_{237}^{245}$ \& ${ }_{214}^{202}$ \& ${ }_{3}^{239}$ \& \& 288

285
285 <br>
\hline cision \& ${ }_{255}^{148}$ \& ${ }_{231}^{140}$ \& ${ }_{237}^{100}$ \& ${ }^{168}$ \& ${ }_{142}^{117}$ \& ${ }_{91}^{105}$ \& ${ }_{242}^{140}$ \& ${ }_{21}^{121}$ \& ${ }_{209}^{140}$ \&  \& 1178
178 \& ${ }_{177}^{116}$ \& ${ }_{199}^{197}$ \& ${ }_{199}^{176}$ \& ${ }_{97}^{120}$ \& 109

107 \& ${ }_{176}^{172}$ \& | 188 |
| :--- |
| 186 |
| 1 |
| 1 | \& 145 \& 14：000 \& ${ }_{433}^{316}$ \& 258

408 \& ${ }_{436}^{327}$ \& ${ }_{465}^{344}$ \& ${ }_{239}^{237}$ \& 2198

198 \& ${ }_{418}^{392}$ \& | 329 |
| :--- |
| 432 | \& 281 <br>

\hline cisiciou \& ${ }_{121}^{221}$ \& 204
162
162 \& 222
190
190 \& ${ }_{\substack{232 \\ 205}}$ \& 1118
117 \& 94 \& 202
164
16 \& 214
183

182 \& 1 | 183 |
| :--- |
| 160 |
|  |
| 1 | \&  \& 159

159 \& 136
172
178 \& ${ }_{168}^{171}$ \& 156
153

163 \& | 125 |
| :--- |
| 119 |
| 1 | \& 85

77 \& 146
112 \& 153
155

15 \& ${ }^{139}$ \& －16：00 \& － \begin{tabular}{l}
368 <br>
352 <br>
\hline 50

 \& 

340 <br>
334 <br>
\hline

 \& 

393 <br>
358 <br>
\hline
\end{tabular} \& 388

368
3 \& 243

256 \& ${ }_{147}^{179}$ \& 348
276

276 \& \begin{tabular}{l}
367 <br>
388 <br>
\hline 38

 \& 

323 <br>
293 <br>
298 <br>
\hline 2
\end{tabular} <br>

\hline （17000 \& ${ }_{118}^{193}$ \& 162
122

1 \& | 190 |
| :--- |
| 192 |
| 1 | \& 205

136
136 \& 1137
115 \& 70
62 \& 164
110
110 \& 183
126
126 \& ${ }_{115}^{116}$ \&  \& 159
115 \& ${ }_{133}^{172}$ \& 168
121

121 \& | 163 |
| :--- |
| 134 |
| 1 | \& 119

110 \& 77
57 \& ${ }_{99}^{112}$ \& 155
120

1 \& ${ }_{1}^{139}$ \&  \& ${ }_{\substack{352 \\ 233}}$ \& \begin{tabular}{l}
334 <br>
235 <br>
\hline 25

 \& 

358 <br>
263 <br>
\hline 28

 \& 

368 <br>
270 <br>
\hline
\end{tabular} \& ${ }_{225}^{256}$ \& ${ }_{119}^{147}$ \& 276

209 \& \begin{tabular}{l}
338 <br>
246 <br>
\hline 28

 \& 

299 <br>
225 <br>
\hline
\end{tabular} <br>

\hline 19：00 \& 93 \& ${ }_{88}^{122}$ \& 105 \& 117 \& ${ }_{71}$ \& ${ }_{38}$ \& ${ }_{81}$ \& ${ }_{97}^{181}$ \& ${ }_{85}$ \& 19：00 \& 67 \& 66 \& 80 \& ${ }_{85}$ \& 76 \& 42 \& 64 \& 72 \& 69 \& 19：00 \& 160 \& 154 \& 185 \& 202 \& 147 \& 80 \& 145 \& 169 \& 153 <br>

\hline 2000 \& 49 \& 57 \& 59 \& 59 \& ${ }^{36}$ \& ${ }^{31}$ \& ${ }^{43}$ \& 53 \& 48 \& 20：00 \& ${ }^{32}$ \& ${ }^{49}$ \& 39 \& ${ }_{17}^{44}$ \& ${ }^{40}$ \& ${ }^{28}$ \& ${ }^{37}$ \& ${ }_{20}^{40}$ \& 38 \& 20，00 \& ${ }^{81}$ \& ${ }^{106}$ \& ${ }^{98}$ \& ${ }^{103}$ \& ${ }^{76}$ \& 59 \& 80 \& ${ }_{9}^{94}$ \& | 86 |
| :--- |
| 51 |
| 51 | <br>

\hline （21：00 \& 24 \& 44
14 \& 37
20 \& 34
18
18 \& ${ }_{14}^{28}$ \& ${ }_{11}^{19}$ \& ${ }_{12}^{29}$ \& 34
16
16 \& ${ }^{31}$ \& 21：00 \& ${ }_{5}^{19}$ \& 25

16 \& $\stackrel{23}{7}$ \& ${ }_{20}^{17}$ \& | 22 |
| :---: |
| 17 | \& 17

11 \& ${ }_{12}^{19}$ \& 12 \& ${ }^{20}$ \& 21：00 \& ${ }^{43}$ \& 69
30 \& 60

27 \& $\begin{array}{r}51 \\ 38 \\ \hline\end{array}$ \& \begin{tabular}{|c}
50 <br>
31

 \& ${ }_{22}^{36}$ \& 

48 <br>
${ }_{24}$ <br>
\hline

 \& ¢ ${ }_{28}$ \& 

51 <br>
27 <br>
\hline 1
\end{tabular} <br>

\hline 23：00 \& 3 \& 13 \& ， \& 14 \& 11 \& 1 \& 12 \& 16 \& 15 \& 22，00 \& ${ }_{4}$ \& ${ }_{4}$ \& 6 \& 12 \& ${ }_{9}$ \& 5 \& 12 \& 12 \& ${ }_{6}$ \& 223：00 \& 7 \& ${ }_{17} 17$ \& ${ }_{13}^{27}$ \& 38
26 \& 30
20 \& ${ }_{6}^{22}$ \& ${ }^{24}$ \& ${ }_{13}^{28}$ \& ${ }_{13}^{27}$ <br>
\hline  \& \& \& \& \& \& \& \& \& 1655 \& $\underset{\substack{\text { Total } \\ \text { 12H（7－19）}}}{ }$ \& \& \& \& \& \& \& \& \& \& （Total \& \& \& \& \& 2918 \& \& \& \& <br>

\hline  \& ${ }_{1944}^{1746}$ \& ${ }_{1977}^{1758}$ \& ${ }_{2182}^{1951}$ \& ${ }_{2212}^{1968}$ \& ${ }_{1639}^{1487}$ \& ${ }_{1088}^{968}$ \& | 17808 |
| :--- |
| 1888 | \& 12041 \& 1844 \&  \& ${ }_{1989}^{1892}$ \& ${ }_{1980}^{1890}$ \& ${ }_{2220}^{2024}$ \& ${ }_{2216}^{2027}$ \& ${ }_{1592}^{141}$ \& ${ }_{1119}^{1018}$ \& ${ }_{189}^{189}$ \& ${ }^{2} 885$ \& 1858 \&  \& ${ }_{393}^{3575}$ \& ${ }_{3967}^{3518}$ \& ${ }_{4402}^{3975}$ \& ${ }_{4298}$ \& ${ }_{3231}^{2918}$ \& ${ }_{2182}^{1986}$ \& ${ }_{\substack{309 \\ 367}}$ \& ${ }_{4099}^{3006}$ \& <br>

\hline 18H（6－24） \& 1961 \& 2004 \& 2209 \& 2244 \& 1664 \& 1075 \& 192 \& 2064 \& \& ${ }^{184 /(6,24)}$ \& 1998 \& 2010 \& ${ }^{2233}$ \& 2248 \& 1618 \& 1135 \& 1893 \& 2076 \& \& ${ }_{18} 181(624)$ \& 3959 \& 4014 \& 4442 \& 4492 \& 3882 \& ${ }_{2210}$ \& 3795 \& 4140 \& 3742 <br>
\hline 244（0－24） \& 1993 \& 2028 \& 2242 \& 2274 \& 1689 \& 1098 \& 1930 \& 2093 \& \& ${ }^{24 H(0.24)}$ \& 2017 \& 2026 \& 2253 \& 2269 \& 1646 \& 1154 \& 1920 \& 2097 \& 1898 \& ${ }^{241(02024)}$ \& 4010 \& \& 4495 \& \& 3335 \& 2252 \& 3850 \& 4190 \& <br>
\hline ${ }^{\text {Am Peak }}$ \& 08：00 \& 08：00 \& ${ }^{11: 00}$ \& ${ }^{08,00}$ \& ${ }_{1}^{1100}$ \& ${ }^{11: 00}$ \& ${ }^{08} \mathbf{0}$［00 \& \& 1100 \& ${ }^{\text {mpeak }}$ \& 08．00 \& ${ }^{08} 8000$ \& 08．00 \& 08．00 \& ${ }_{10}^{11: 00}$ \& ${ }^{10: 00}$ \& 0800 \&  \& 08020 \& M Peak \& ${ }^{08.00}$ \& 08.00 \& ${ }_{0}^{08000}$ \& ${ }_{0}^{08.00} 4$ \& ${ }_{\substack{11.00 \\ 378}}$ \& ${ }_{\text {10，00 }}^{1205}$ \& ${ }_{0}^{0800}$ \& 08．00 \& O8．00 <br>
\hline \& ${ }^{129}$ \& ${ }^{157}$ \& 160 \& 161 \& ${ }^{205}$ \& 119 \& 159 \& 153 \& 146 \& \& 282 \& ${ }^{283}$ \& 288 \& 300 \& ${ }^{173}$ \& ${ }^{131}$ \& 284 \& 287 \& 222 \& \& ${ }^{411}$ \& 440 \& ${ }^{445}$ \& ${ }^{461}$ \& 378 \& 245 \& ${ }^{43}$ \& 440 \& 344 <br>
\hline PM Peak \& 15：00 \& 15：00 \& 15：00 \& 15：00 \& 12：00 \& 12：00 \& 15：00 \& 15：00 \& 15：00 \& PM Peak \& 15：00 \& 15：00 \& 15：00 \& 15：00 \& 16：00 \& 14：00 \& 15：00 \& 15：00 \& $15: 00$ \& PM Peak \& 15：00 \& 15：00 \& 15：00 \& 15：00 \& 12：00 \& 12：00 \& 15：00 \& 15：00 \& 15：00 <br>
\hline \& 255 \& ${ }_{231}$ \& 237 \& 266 \& 161 \& 125 \& 242 \& 246 \& \& \& 178 \& 177 \& 199 \& 199 \& 125 \& 109 \& 176 \& 186 \& \& \& 433 \& 408 \& ${ }_{436}$ \& 465 \& 278 \& 229 \& ${ }_{4} 48$ \& \& 371 <br>
\hline
\end{tabular}

## Appendix C

## Architects' Plans and Swept Path Analysis





## Appendix D

TRICS Outputs

| TRICS 7.8.1 | 240321 B20.15 | Database right of TRICS Consortium Limited, 2021. All rights reserved |
| :--- | :--- | ---: | | Thursday 01/ 04/ 21 |
| ---: |
| PF SAT MM |

Filtering Summary
Land Use 01/C RETAIL/DISCOUNT FOOD STORES
Selected Trip Rate Calculation Parameter Range 900-2635 sqm GFA
Actual Trip Rate Calculation Parameter Range 1485 - 2568 sqm GFA
Date Range Minimum: 01/01/13
Maximum: 21/10/20
Parking Spaces Range
All Surveys Included
Saturday 10
Suburban Area (PPS6 Out of Centre) 4
Edge of Town 3

Neighbourhood Centre (PPS6 Local Centre) 3
All Surveys Included
5,001 to 10,000
10,001 to $15,000 \quad 1$
15,001 to $20,000 \quad 3$
25,001 to $50,000 \quad 2$
50,001 to $100,000 \quad 2$
5,001 to 25,000 1
50,001 to 75,000 1
75,001 to $100,000 \quad 1$
125,001 to 250,000 2
250,001 to 500,000 2
500,001 or More 3
0.5 or Less 2
0.6 to $1.0 \quad 3$
1.1 to $1.5 \quad 5$

No PTAL Present 9
2 Poor 1

## TRIP RATE CALCULATI ON SELECTION PARAMETERS:

Land Use $\quad: \quad 01$ - RETAIL
Category $\quad$ C - DISCOUNT FOOD STORES
MULTI-MODAL TOTAL VEHI CLES

| Selected regions and areas: |  |  |
| :--- | :--- | :--- |
| $\mathbf{0 1}$ | GREATER LONDON |  |
|  | WF WALTHAM FOREST |  |
| $\mathbf{0 3}$ | SOUTH WEST |  |
|  | SM SOMERSET |  |
| $\mathbf{0 5}$ | EAST MI DLANDS |  |
|  | LN LINCOLNSHIRE |  |
| $\mathbf{0 6}$ | NT NOTTINGHAMSHIRE | 2 days |
|  | WEST MIDLANDS | 1 days |
|  | WM WEST MIDLANDS | 2 days |
| $\mathbf{1 0}$ | WO WORCESTERSHIRE | 1 days |
|  | WALES CARDIFF | 1 days |
| $\mathbf{1 4}$ | CEINSTER | 1 days |

This section displays the number of survey days per TRICS $\circledR^{\circledR}$ 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: 1485 to 2568 (units: sqm) <br> Range Selected by User: 900 to 2635 (units: sqm) |  |  |
| Parking Spaces Range: All Surveys Included  <br> Public Transport Provision:    <br> Selection by:   <br> Date Range: $01 / 01 / 13$ to $21 / 10 / 20$  Include all surveys |  |  |

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:

Saturday 10 days
This data displays the number of selected surveys by day of the week.
Selected survey types:
Manual count
Directional ATC Count
10 days
Directional ATC Count
This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:
Suburban Area (PPS6 Out of Centre) 4
Edge of Town 3
Neighbourhood Centre (PPS6 Local Centre) 3
This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known

Selected Location Sub Categories:
Industrial Zone 1
Development Zone 1
Residential Zone 1
Retail Zone 1
High Street 2
No Sub Category 4
This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

## Secondary Filtering selection:

Use Class:
E(a)
10 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 $\circledR^{\circledR}$.

Population within 500 m Range:
All Surveys Included
Population within 1 mile:

| 5,001 to 10,000 | 2 days |
| :--- | :--- |
| 10,001 to 15,000 | 1 days |
| 15,001 to 20,000 | 3 days |
| 25,001 to 50,000 | 2 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 | 1 days |
| 50,001 to 75,000 | 1 days |
| 75,001 to 100,000 | 1 days |
| 125,001 to 250,000 | 2 days |
| 250,001 to 500,000 | 2 days |
| 500,001 or More | 3 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 | 2 days |
| :--- | :--- |
| 0.6 to 1.0 | 3 days |
| 1.1 to 1.5 | 5 days |

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

Petrol filling station:

| Included in the survey count | 0 days |
| :--- | ---: |
| Excluded from count or no filling station | 10 days |

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

Travel Plan:
Not Known 1 days
Yes 1 days
No 8 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 9 days
2 Poor 1 days
This data displays the number of selected surveys with PTAL Ratings.

| TRICS 7.8.1 <br> DF SAT MM | 240321 B20.15 | Database right of TRICS Consortium Limited, 2021. All rights reserved | Thursday $01 / \mathbf{0 4 / 2 1}$ |
| :--- | :--- | :--- | :--- |
| Page $\mathbf{4}$ |  |  |  |
| Entran Ltd | Chapel Pill Lane | Bristol | Licence No: 337901 |

LIST OF SITES relevant to selection parameters
1 CF-01-C-01 LIDL

## CARDI FF

EAST TYNDALL STREET
CARDIFF
Suburban Area (PPS6 Out of Centre)
Development Zone
Total Gross floor area: 2568 sqm Survey date: SATURDAY 01/07/17
2 LN-01-C-02 LIDL
DIXON STREET
LINCOLN
NEW BOULTHAM
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Gross floor area:
Survey date: SATURDAY
2233 sqm
28/10/17
3 LN-01-C-03
ALDI
NEWARK ROAD
LINCOLN
BRACEBRIDGE
Suburban Area (PPS6 Out of Centre)
High Street
Total Gross floor area:
Survey date: SATURDAY
1485 sqm 28/10/17
4 NT-01-C-01 LIDL
CHAPEL LANE
BINGHAM
Edge of Town
Industrial Zone
Total Gross floor area: 2440 sqm Survey date: SATURDAY 16/07/16
5 SM-01-C-01 LIDL
SEAWARD WAY
MINEHEAD
Edge of Town
No Sub Category
Total Gross floor area: 2247 sqm Survey date: SATURDAY 24/06/17
6 WC-01-C-01 ALDI
PINEWOOD CLOSE
BRAY
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Gross floor are
1672 sqm Survey date: SATURDAY 05/10/19
7 WF-01-C-01 ALDI
HEYBRIDGE WAY
LEYTON
HATCH LANE
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total Gross floor area: 2099 sqm Survey date: SATURDAY 07/03/20

Survey Type: MANUAL WALTHAM FOREST

Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

| 8 | WM-01-C-01 LI DL |  | WEST MI DLANDS |
| :---: | :---: | :---: | :---: |
|  | MACKADOWN LANE |  |  |
|  | BIRMINGHAM |  |  |
|  | KITT'S GREEN |  |  |
|  | Neighbourhood Centre (PPS6 Local Centre) |  |  |
|  | No Sub Category |  |  |
|  | Total Gross floor area: | 2085 sqm |  |
|  | Survey date: SATURDAY | 09/07/16 | Survey Type: MANUAL |
| 9 | WM-01-C-02 LIDL |  | WEST MI DLANDS |
|  | HIGH STREET |  |  |
|  | WEST BROMWICH |  |  |
|  | GUNS VILLAGE |  |  |
|  | Neighbourhood Centre (PPS6 Local Centre) |  |  |
|  | High Street |  |  |
|  | Total Gross floor area: | 2085 sqm |  |
|  | Survey date: SATURDAY | $09 / 07 / 16$ | Survey Type: MANUAL |
| 10 | WO-01-C-01 LIDL |  | WORCESTERSHIRE |
|  | BLACKPOLE ROAD |  |  |
|  | WORCESTER |  |  |
|  | BRICKFIELDS |  |  |
|  | Edge of Town |  |  |
|  | Retail Zone |  |  |
|  | Total Gross floor area: | 2417 sqm |  |
|  | Survey date: SATURDAY | 16/07/16 | Survey Type: MANUAL |

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

## TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

## MULTI-MODAL TOTAL VEHICLES

Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period


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

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

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

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

## Parameter summary

Trip rate parameter range selected:
Survey date date range:
Number of weekdays (Monday-Friday):
Number of Saturdays:
Number of Sundays:
Surveys automatically removed from selection:
Surveys manually removed from selection:

1485-2568 (units: sqm)
01/01/13-21/10/20
0
10
0
0
0

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

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES
MULTI-MODAL TAXIS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period


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

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

## TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

MULTI-MODAL OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period


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

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

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES
MULTI-MODAL PSVS

## Calculation factor: 100 sqm

## BOLD print indicates peak (busiest) period



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

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

## TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

## MULTI-MODAL CYCLISTS

## Calculation factor: 100 sqm

## BOLD print indicates peak (busiest) period



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

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

## TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

## MULTI-MODAL VEHICLE OCCUPANTS

## Calculation factor: 100 sqm

## BOLD print indicates peak (busiest) period



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

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

## TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

## MULTI-MODAL PEDESTRIANS

## Calculation factor: 100 sqm

## BOLD print indicates peak (busiest) period

|  |  | RRIVALS |  |  | ARTURES |  |  | OTALS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time Range | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00-01:00 |  |  |  |  |  |  |  |  |  |
| 01:00-02:00 |  |  |  |  |  |  |  |  |  |
| 02:00-03:00 |  |  |  |  |  |  |  |  |  |
| 03:00-04:00 |  |  |  |  |  |  |  |  |  |
| 04:00-05:00 |  |  |  |  |  |  |  |  |  |
| 05:00-06:00 |  |  |  |  |  |  |  |  |  |
| 06:00-07:00 |  |  |  |  |  |  |  |  |  |
| 07:00-08:00 | 9 | 2184 | 0.097 | 9 | 2184 | 0.056 | 9 | 2184 | 0.153 |
| 08:00-09:00 | 10 | 2133 | 0.792 | 10 | 2133 | 0.502 | 10 | 2133 | 1.294 |
| 09:00-10:00 | 10 | 2133 | 0.966 | 10 | 2133 | 0.914 | 10 | 2133 | 1.880 |
| 10:00-11:00 | 10 | 2133 | 1.627 | 10 | 2133 | 1.285 | 10 | 2133 | 2.912 |
| 11:00-12:00 | 10 | 2133 | 1.510 | 10 | 2133 | 1.524 | 10 | 2133 | 3.034 |
| 12:00-13:00 | 10 | 2133 | 2.142 | 10 | 2133 | 1.931 | 10 | 2133 | 4.073 |
| 13:00-14:00 | 10 | 2133 | 2.307 | 10 | 2133 | 2.185 | 10 | 2133 | 4.492 |
| 14:00-15:00 | 10 | 2133 | 2.213 | 10 | 2133 | 2.382 | 10 | 2133 | 4.595 |
| 15:00-16:00 | 10 | 2133 | 1.856 | 10 | 2133 | 2.166 | 10 | 2133 | 4.022 |
| 16:00-17:00 | 10 | 2133 | 1.814 | 10 | 2133 | 1.880 | 10 | 2133 | 3.694 |
| 17:00-18:00 | 10 | 2133 | 1.988 | 10 | 2133 | 1.758 | 10 | 2133 | 3.746 |
| 18:00-19:00 | 10 | 2133 | 1.777 | 10 | 2133 | 1.631 | 10 | 2133 | 3.408 |
| 19:00-20:00 | 10 | 2133 | 1.111 | 10 | 2133 | 1.369 | 10 | 2133 | 2.480 |
| 20:00-21:00 | 10 | 2133 | 0.984 | 10 | 2133 | 1.186 | 10 | 2133 | 2.170 |
| 21:00-22:00 | 10 | 2133 | 0.530 | 10 | 2133 | 0.675 | 10 | 2133 | 1.205 |
| 22:00-23:00 | 9 | 2184 | 0.066 | 9 | 2184 | 0.163 | 9 | 2184 | 0.229 |
| 23:00-24:00 |  |  |  |  |  |  |  |  |  |
| Total Rates: |  |  | 21.780 | 21.607 |  |  | 43.387 |  |  |

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

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

## TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

MULTI-MODAL BUS/ TRAM PASSENGERS

## Calculation factor: 100 sqm

## BOLD print indicates peak (busiest) period

|  |  | RRIVALS |  |  | ARTURES |  |  | OTALS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time Range | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00-01:00 |  |  |  |  |  |  |  |  |  |
| 01:00-02:00 |  |  |  |  |  |  |  |  |  |
| 02:00-03:00 |  |  |  |  |  |  |  |  |  |
| 03:00-04:00 |  |  |  |  |  |  |  |  |  |
| 04:00-05:00 |  |  |  |  |  |  |  |  |  |
| 05:00-06:00 |  |  |  |  |  |  |  |  |  |
| 06:00-07:00 |  |  |  |  |  |  |  |  |  |
| 07:00-08:00 | 9 | 2184 | 0.031 | 9 | 2184 | 0.010 | 9 | 2184 | 0.041 |
| 08:00-09:00 | 10 | 2133 | 0.258 | 10 | 2133 | 0.117 | 10 | 2133 | 0.375 |
| 09:00-10:00 | 10 | 2133 | 0.333 | 10 | 2133 | 0.272 | 10 | 2133 | 0.605 |
| 10:00-11:00 | 10 | 2133 | 0.445 | 10 | 2133 | 0.356 | 10 | 2133 | 0.801 |
| 11:00-12:00 | 10 | 2133 | 0.413 | 10 | 2133 | 0.413 | 10 | 2133 | 0.826 |
| 12:00-13:00 | 10 | 2133 | 0.366 | 10 | 2133 | 0.422 | 10 | 2133 | 0.788 |
| 13:00-14:00 | 10 | 2133 | 0.459 | 10 | 2133 | 0.389 | 10 | 2133 | 0.848 |
| 14:00-15:00 | 10 | 2133 | 0.441 | 10 | 2133 | 0.389 | 10 | 2133 | 0.830 |
| 15:00-16:00 | 10 | 2133 | 0.366 | 10 | 2133 | 0.366 | 10 | 2133 | 0.732 |
| 16:00-17:00 | 10 | 2133 | 0.291 | 10 | 2133 | 0.333 | 10 | 2133 | 0.624 |
| 17:00-18:00 | 10 | 2133 | 0.286 | 10 | 2133 | 0.347 | 10 | 2133 | 0.633 |
| 18:00-19:00 | 10 | 2133 | 0.248 | 10 | 2133 | 0.248 | 10 | 2133 | 0.496 |
| 19:00-20:00 | 10 | 2133 | 0.150 | 10 | 2133 | 0.225 | 10 | 2133 | 0.375 |
| 20:00-21:00 | 10 | 2133 | 0.098 | 10 | 2133 | 0.188 | 10 | 2133 | 0.286 |
| 21:00-22:00 | 10 | 2133 | 0.047 | 10 | 2133 | 0.103 | 10 | 2133 | 0.150 |
| 22:00-23:00 | 9 | 2184 | 0.000 | 9 | 2184 | 0.025 | 9 | 2184 | 0.025 |
| 23:00-24:00 |  |  |  |  |  |  |  |  |  |
| Total Rates: |  |  | 4.232 | 4.203 |  |  | 8.435 |  |  |

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.

Licence No: 337901

## TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

## MULTI-MODAL TOTAL RAIL PASSENGERS

## Calculation factor: 100 sqm

## BOLD print indicates peak (busiest) period



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

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

## TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

## MULTI-MODAL PUBLIC TRANSPORT USERS

## Calculation factor: 100 sqm

## BOLD print indicates peak (busiest) period

|  |  | RRIVALS |  |  | ARTURES |  |  | OTALS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time Range | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00-01:00 |  |  |  |  |  |  |  |  |  |
| 01:00-02:00 |  |  |  |  |  |  |  |  |  |
| 02:00-03:00 |  |  |  |  |  |  |  |  |  |
| 03:00-04:00 |  |  |  |  |  |  |  |  |  |
| 04:00-05:00 |  |  |  |  |  |  |  |  |  |
| 05:00-06:00 |  |  |  |  |  |  |  |  |  |
| 06:00-07:00 |  |  |  |  |  |  |  |  |  |
| 07:00-08:00 | 9 | 2184 | 0.097 | 9 | 2184 | 0.010 | 9 | 2184 | 0.107 |
| 08:00-09:00 | 10 | 2133 | 0.272 | 10 | 2133 | 0.122 | 10 | 2133 | 0.394 |
| 09:00-10:00 | 10 | 2133 | 0.342 | 10 | 2133 | 0.272 | 10 | 2133 | 0.614 |
| 10:00-11:00 | 10 | 2133 | 0.464 | 10 | 2133 | 0.361 | 10 | 2133 | 0.825 |
| 11:00-12:00 | 10 | 2133 | 0.413 | 10 | 2133 | 0.417 | 10 | 2133 | 0.830 |
| 12:00-13:00 | 10 | 2133 | 0.366 | 10 | 2133 | 0.422 | 10 | 2133 | 0.788 |
| 13:00-14:00 | 10 | 2133 | 0.459 | 10 | 2133 | 0.394 | 10 | 2133 | 0.853 |
| 14:00-15:00 | 10 | 2133 | 0.441 | 10 | 2133 | 0.394 | 10 | 2133 | 0.835 |
| 15:00-16:00 | 10 | 2133 | 0.366 | 10 | 2133 | 0.366 | 10 | 2133 | 0.732 |
| 16:00-17:00 | 10 | 2133 | 0.291 | 10 | 2133 | 0.333 | 10 | 2133 | 0.624 |
| 17:00-18:00 | 10 | 2133 | 0.291 | 10 | 2133 | 0.380 | 10 | 2133 | 0.671 |
| 18:00-19:00 | 10 | 2133 | 0.248 | 10 | 2133 | 0.263 | 10 | 2133 | 0.511 |
| 19:00-20:00 | 10 | 2133 | 0.150 | 10 | 2133 | 0.234 | 10 | 2133 | 0.384 |
| 20:00-21:00 | 10 | 2133 | 0.098 | 10 | 2133 | 0.202 | 10 | 2133 | 0.300 |
| 21:00-22:00 | 10 | 2133 | 0.047 | 10 | 2133 | 0.113 | 10 | 2133 | 0.160 |
| 22:00-23:00 | 9 | 2184 | 0.000 | 9 | 2184 | 0.025 | 9 | 2184 | 0.025 |
| 23:00-24:00 |  |  |  |  |  |  |  |  |  |
| Total Rates: |  |  | 4.345 | 4.308 |  |  | 8.653 |  |  |

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

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

## TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

MULTI-MODAL TOTAL PEOPLE
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 |
| 00:00-01:00 |  |  |  |  |  |  |  |  |  |
| 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 | 9 | 2184 | 1.012 | 9 | 2184 | 0.234 | 9 | 2184 | 1.246 |
| 08:00-09:00 | 10 | 2133 | 5.274 | 10 | 2133 | 3.282 | 10 | 2133 | 8.556 |
| 09:00-10:00 | 10 | 2133 | 7.581 | 10 | 2133 | 6.399 | 10 | 2133 | 13.980 |
| 10:00-11:00 | 10 | 2133 | 10.745 | 10 | 2133 | 9.203 | 10 | 2133 | 19.948 |
| 11:00-12:00 | 10 | 2133 | 12.719 | 10 | 2133 | 11.884 | 10 | 2133 | 24.603 |
| 12:00-13:00 | 10 | 2133 | 12.794 | 10 | 2133 | 13.947 | 10 | 2133 | 26.741 |
| 13:00-14:00 | 10 | 2133 | 13.600 | 10 | 2133 | 12.606 | 10 | 2133 | 26.206 |
| 14:00-15:00 | 10 | 2133 | 12.278 | 10 | 2133 | 12.653 | 10 | 2133 | 24.931 |
| 15:00-16:00 | 10 | 2133 | 11.987 | 10 | 2133 | 12.625 | 10 | 2133 | 24.612 |
| 16:00-17:00 | 10 | 2133 | 11.336 | 10 | 2133 | 11.898 | 10 | 2133 | 23.234 |
| 17:00-18:00 | 10 | 2133 | 10.065 | 10 | 2133 | 10.150 | 10 | 2133 | 20.215 |
| 18:00-19:00 | 10 | 2133 | 7.670 | 10 | 2133 | 8.382 | 10 | 2133 | 16.052 |
| 19:00-20:00 | 10 | 2133 | 5.447 | 10 | 2133 | 6.765 | 10 | 2133 | 12.212 |
| 20:00-21:00 | 10 | 2133 | 3.385 | 10 | 2133 | 4.290 | 10 | 2133 | 7.675 |
| 21:00-22:00 | 10 | 2133 | 1.697 | 10 | 2133 | 2.625 | 10 | 2133 | 4.322 |
| 22:00-23:00 | 9 | 2184 | 0.168 | 9 | 2184 | 0.580 | 9 | 2184 | 0.748 |
| 23:00-24:00 |  |  |  |  |  |  |  |  |  |
| Total Rates: |  |  | 127.758 |  |  | 127.523 |  |  | 255.281 |

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

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

## TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

MULTI-MODAL CARS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period


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

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

## TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

## MULTI-MODAL LGVS

## Calculation factor: $\mathbf{1 0 0}$ 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 |
| 00:00-01:00 |  |  |  |  |  |  |  |  |  |
| 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 | 9 | 2184 | 0.066 | 9 | 2184 | 0.020 | 9 | 2184 | 0.086 |
| 08:00-09:00 | 10 | 2133 | 0.169 | 10 | 2133 | 0.117 | 10 | 2133 | 0.286 |
| 09:00-10:00 | 10 | 2133 | 0.173 | 10 | 2133 | 0.150 | 10 | 2133 | 0.323 |
| 10:00-11:00 | 10 | 2133 | 0.188 | 10 | 2133 | 0.136 | 10 | 2133 | 0.324 |
| 11:00-12:00 | 10 | 2133 | 0.173 | 10 | 2133 | 0.216 | 10 | 2133 | 0.389 |
| 12:00-13:00 | 10 | 2133 | 0.141 | 10 | 2133 | 0.155 | 10 | 2133 | 0.296 |
| 13:00-14:00 | 10 | 2133 | 0.206 | 10 | 2133 | 0.173 | 10 | 2133 | 0.379 |
| 14:00-15:00 | 10 | 2133 | 0.192 | 10 | 2133 | 0.206 | 10 | 2133 | 0.398 |
| 15:00-16:00 | 10 | 2133 | 0.155 | 10 | 2133 | 0.150 | 10 | 2133 | 0.305 |
| 16:00-17:00 | 10 | 2133 | 0.136 | 10 | 2133 | 0.155 | 10 | 2133 | 0.291 |
| 17:00-18:00 | 10 | 2133 | 0.173 | 10 | 2133 | 0.169 | 10 | 2133 | 0.342 |
| 18:00-19:00 | 10 | 2133 | 0.122 | 10 | 2133 | 0.150 | 10 | 2133 | 0.272 |
| 19:00-20:00 | 10 | 2133 | 0.070 | 10 | 2133 | 0.113 | 10 | 2133 | 0.183 |
| 20:00-21:00 | 10 | 2133 | 0.042 | 10 | 2133 | 0.070 | 10 | 2133 | 0.112 |
| 21:00-22:00 | 10 | 2133 | 0.038 | 10 | 2133 | 0.038 | 10 | 2133 | 0.076 |
| 22:00-23:00 | 9 | 2184 | 0.000 | 9 | 2184 | 0.005 | 9 | 2184 | 0.005 |
| 23:00-24:00 |  |  |  |  |  |  |  |  |  |
| Total Rates: |  |  | 2.044 |  |  | 2.023 |  |  | 4.067 |

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

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

## TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

## MULTI-MODAL MOTOR CYCLES

## Calculation factor: 100 sqm

## BOLD print indicates peak (busiest) period



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

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

## TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

## MULTI-MODAL Underground Passengers

## Calculation factor: 100 sqm

## BOLD print indicates peak (busiest) period



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

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

## TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

## MULTI-MODAL National Rail Passengers

## Calculation factor: 100 sqm

## BOLD print indicates peak (busiest) period



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

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

## TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

## MULTI-MODAL Bus Passengers

## 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 |
| 00:00-01:00 |  |  |  |  |  |  |  |  |  |
| 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 | 9 | 2184 | 0.020 | 9 | 2184 | 0.005 | 9 | 2184 | 0.025 |
| 08:00-09:00 | 10 | 2133 | 0.127 | 10 | 2133 | 0.084 | 10 | 2133 | 0.211 |
| 09:00-10:00 | 10 | 2133 | 0.192 | 10 | 2133 | 0.173 | 10 | 2133 | 0.365 |
| 10:00-11:00 | 10 | 2133 | 0.211 | 10 | 2133 | 0.188 | 10 | 2133 | 0.399 |
| 11:00-12:00 | 10 | 2133 | 0.183 | 10 | 2133 | 0.169 | 10 | 2133 | 0.352 |
| 12:00-13:00 | 10 | 2133 | 0.159 | 10 | 2133 | 0.159 | 10 | 2133 | 0.318 |
| 13:00-14:00 | 10 | 2133 | 0.173 | 10 | 2133 | 0.155 | 10 | 2133 | 0.328 |
| 14:00-15:00 | 10 | 2133 | 0.150 | 10 | 2133 | 0.131 | 10 | 2133 | 0.281 |
| 15:00-16:00 | 10 | 2133 | 0.155 | 10 | 2133 | 0.159 | 10 | 2133 | 0.314 |
| 16:00-17:00 | 10 | 2133 | 0.150 | 10 | 2133 | 0.169 | 10 | 2133 | 0.319 |
| 17:00-18:00 | 10 | 2133 | 0.145 | 10 | 2133 | 0.192 | 10 | 2133 | 0.337 |
| 18:00-19:00 | 10 | 2133 | 0.117 | 10 | 2133 | 0.127 | 10 | 2133 | 0.244 |
| 19:00-20:00 | 10 | 2133 | 0.103 | 10 | 2133 | 0.113 | 10 | 2133 | 0.216 |
| 20:00-21:00 | 10 | 2133 | 0.056 | 10 | 2133 | 0.098 | 10 | 2133 | 0.154 |
| 21:00-22:00 | 10 | 2133 | 0.047 | 10 | 2133 | 0.080 | 10 | 2133 | 0.127 |
| 22:00-23:00 | 9 | 2184 | 0.000 | 9 | 2184 | 0.025 | 9 | 2184 | 0.025 |
| 23:00-24:00 |  |  |  |  |  |  |  |  |  |
| Total Rates: |  |  | 1.988 |  |  | 2.027 |  |  | 4.015 |

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

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

| TRICS 7.8.1 240321 B20.15 | Database right of TRICS Consortium Limited, 2021. All rights reserved | Thursday 01/ 04/ 21 <br> Page $\mathbf{1}$ |
| :--- | :--- | :--- |
| En SAT |  | Licence No: 337901 |

Filtering Summary
Land Use 01/C RETAIL/DISCOUNT FOOD STORES
Selected Trip Rate Calculation Parameter Range 700-2703 sqm GFA
Actual Trip Rate Calculation Parameter Range $\quad 1485-2568$ sqm GFA
Date Range Minimum: 01/01/13
Maximum: 28/11/20
Parking Spaces Range
All Surveys Included
Days of the week selected
Main Location Types selected

Population within 500 m
Population <1 Mile ranges selected

Population <5 Mile ranges selected

Car Ownership <5 Mile ranges selected

PTAL Rating

Saturday 17
Suburban Area (PPS6 Out of Centre) 6 Edge of Town 7 Neighbourhood Centre (PPS6 Local Centre) 4

All Surveys Included

| 5,001 to 10,000 | 7 |
| :--- | :--- |
| 10,001 to 15,000 | 1 |
| 15,001 to 20,000 | 3 |
| 25,001 to 50,000 | 4 |
| 50,001 to 100,000 | 2 |
| 5,001 to 25,000 | 1 |
| 25,001 to 50,000 | 2 |
| 50,001 to 75,000 | 1 |
| 75,001 to 100,000 | 2 |
| 100,001 to 125,000 | 3 |
| 125,001 to 250,000 | 3 |
| 250,001 to 500,000 | 4 |
| 500,001 or More |  |
| 0.5 or Less | 2 |
| 0.6 to 1.0 | 7 |
| 1.1 to 1.5 | 2 |
| 1.6 to 2.0 |  |
| No PTAL Present | 2 |

## TRIP RATE CALCULATI ON SELECTION PARAMETERS:

Land Use $\quad: \quad 01$ - RETAIL
Category $\quad$ C - DISCOUNT FOOD STORES
TOTAL VEHICLES

## TOTAL VEHI CLES

Selected regions and areas:
01 GREATER LONDON

| HV HAVERING | 1 days |
| :--- | :--- |
| WF WALTHAM FOREST | 1 days |
| SOUTH EAST |  |

03 SOUTH WEST
SM SOMERSET 1 days

05 EAST MI DLANDS
LN LINCOLNSHIRE 2 days
NR NORTHAMPTONSHIRE 1 days
NT NOTTINGHAMSHIRE 1 days

06 WEST MIDLANDS
WM WEST MIDLANDS 2 days
WO WORCESTERSHIRE 1 days

09 NORTH
TV TEES VALLEY 1 days

10 WALES
CF CARDIFF 1 days
MM MONMOUTHSHIRE 1 days

| LU | LOUTH | 1 days |
| :--- | :--- | :--- |
| WC | WICKLOW | 1 days |

15 GREATER DUBLI N
DL DUBLIN 1 days

This section displays the number of survey days per TRICS $\circledR^{\circledR}$ 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: | 1485 to 2568 (units: sqm) |
| Range Selected by User: | 700 to 2703 (units: sqm) |
| Parking Spaces Range: | All Surveys Included |

Public Transport Provision: Selection by:

> Include all surveys

Date Range: $\quad 01 / 01 / 13$ to $28 / 11 / 20$

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

Selected survey days:
Saturday
17 days
This data displays the number of selected surveys by day of the week.

| Selected survey types: |  |
| :--- | ---: |
| Manual count | 17 days |
| Directional ATC Count | 0 days |

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

Selected Locations:
Suburban Area (PPS6 Out of Centre) 6
Edge of Town 7
Neighbourhood Centre (PPS6 Local Centre) 4
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
Development Zone1

Residential Zone 3
Retail Zone
1
High Street

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

## Secondary Filtering selection:

Use Class:
E(a)
17 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 ${ }^{\circledR}$.

Population within 500 m Range:
All Surveys Included
Population within 1 mile:

| 5,001 to 10,000 | 7 days |
| :--- | :--- |
| 10,001 to 15,000 | 1 days |
| 15,001 to 20,000 | 3 days |
| 25,001 to 50,000 | 4 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 <br> 25,001 to 50,000 | 2 days |
| :--- | :--- |
| 50,001 to 75,000 | 2 days |
| 75,001 to 100,000 | 2 days |
| 100,001 to 125,000 | 1 days |
| 125,001 to 250,000 | 3 days |
| 250,001 to 500,000 | 3 days |
| 500,001 or More | 4 days |

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

| O.5 or Less | 2 days |
| :--- | :--- |
| 0.6 to 1.0 | 6 days |
| 1.1 to 1.5 | 7 days |
| 1.6 to 2.0 | 2 days |

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

Petrol filling station:

| Included in the survey count | 0 days |
| :--- | ---: |
| Excluded from count or no filling station | 17 days |

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

Travel Plan:
Not Known 1 days
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 15 days
2 Poor 2 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

Entran Ltd Chapel Pill Lane Bristol
Licence No: 337901

LIST OF SITES relevant to selection parameters

1 BD-01-C-01
RIDGE ROAD
BEDFORD
KEMPSTON
Edge of Town
Residential Zone
Total Gross floor area: Survey date: SATURDA
2 CF-01-C-01 LIDL
EAST TYNDALL STREET
CARDIFF
Suburban Area (PPS6 Out of Centre)
Development Zone
Total Gross floor area: Survey date: SATURDAY
3 DL-01-C-02
ALDI
SANTRY AVENUE
DUBLIN
SANTRY
Edge of Town
No Sub Category
Total Gross floor area: Survey date: SATURDAY
4 HV-01-C-01
ALDI
COLLIER ROW ROAD
ROMFORD
Neighbourhood Centre (PPS6 Local Centre)
High Street
Total Gross floor area:
1575 sqm 05/09/20
5 LN-01-C-02 LIDL
DIXON STREET
LINCOLN
NEW BOULTHAM
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Gross floor area: Survey date: SATURDAY
6 LN-01-C-03 ALDI
NEWARK ROAD
LINCOLN
BRACEBRIDGE
Suburban Area (PPS6 Out of Centre)
High Street
Total Gross floor area: Survey date: SATURDAY
7 LU-01-C-01 ALDI
NEWRY ROAD
DUNDALK

Edge of Town
Industrial Zone
Total Gross floor area: Survey date: SAT
8 MM-01-C-01 LIDL
A466
MONMOUTH
MAYHILL
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Gross floor area: Survey date: SATURDAY
9 NR-01-C-03
ALDI
SAXON WAY WEST
CORBY
Edge of Town
No Sub Category
Total Gross floor area: Survey date: SATURDAY

## BEDFORDSHIRE

Survey Type: MANUAL CARDI FF

Survey Type: MANUAL

## DUBLI N

Survey Type: MANUAL

## HAVERING

Survey Type: MANUAL LI NCOLNSHI RE

Survey Type: MANUAL

## LI NCOLNSHI RE

Survey Type: MANUAL LOUTH

Survey Type: MANUAL MONMOUTHSHIRE

Survey Type: MANUAL NORTHAMPTONSHI RE

Survey Type: MANUAL

| TRICS 7.8.1 <br> DF SAT | 240321 B20.15 | Database right of TRICS Consortium Limited, 2021. All rights reserved | Thursday $01 / \mathbf{0 4 / 2 1}$ |
| :--- | :--- | :--- | :--- |
| Pntran Ltd |  |  | Chapel Pill Lane |

LIST OF SITES relevant to selection parameters (Cont.)

| 10 | NT-01-C-01 $\quad$ LIDL CHAPEL LANE BINGHAM |  | NOTTI NGHAMSHI RE |
| :---: | :---: | :---: | :---: |
| 11 | Edge of Town | $\begin{gathered} 2440 \text { sqm } \\ 16 / 07 / 16 \end{gathered}$ | Survey Type: MANUAL SOMERSET |
|  | Industrial Zone |  |  |
|  | Total Gross floor area: Survey date: SATURDAY |  |  |
|  | SM-01-C-01 LIDL |  |  |
|  | SEAWARD WAY |  |  |
|  | MINEHEAD |  |  |
| 12 | Edge of Town | $\begin{gathered} 2247 \text { sqm } \\ 24 / 06 / 17 \end{gathered}$ | Survey Type: MANUAL TEES VALLEY |
|  | No Sub Category |  |  |
|  | Total Gross floor area: |  |  |
|  | Survey date: SATURDAY |  |  |
|  | TV-01-C-01 LIDL |  |  |
|  | J ESMOND GARDENS |  |  |
|  | HARTLEPOOL |  |  |
| 13 | Suburban Area (PPS6 Out of Centre) | $\begin{gathered} 1765 \text { sqm } \\ 05 / 09 / 20 \end{gathered}$ | Survey Type: MANUAL WI CKLOW |
|  | Residential Zone |  |  |
|  | Total Gross floor area: |  |  |
|  | Survey date: SATURDAY |  |  |
|  | WC-01-C-01 ALDI |  |  |
|  | PINEWOOD CLOSE |  |  |
|  | BRAY |  |  |
| 14 | Suburban Area (PPS6 Out of Centre) | $\begin{array}{r} 1672 \mathrm{sqm} \\ 05 / 10 / 19 \end{array}$ | Survey Type: MANUAL WALTHAM FOREST |
|  | No Sub Category |  |  |
|  | Total Gross floor area: |  |  |
|  | Survey date: SATURDAY |  |  |
|  | WF-01-C-01 ALDI |  |  |
|  | HEYBRIDGE WAY |  |  |
|  | LEYTON |  |  |
|  | HATCH LANE |  |  |
|  | Neighbourhood Centre (PPS6 Local Centre) |  |  |
|  | Residential Zone |  |  |
| 15 | Total Gross floor area: | $\begin{gathered} 2099 \text { sqm } \\ 07 / 03 / 20 \end{gathered}$ | Survey Type: MANUAL WEST MI DLANDS |
|  | Survey date: SATURDAY |  |  |
|  | WM-01-C-01 LIDL |  |  |
|  | MACKADOWN LANE |  |  |
|  | BIRMINGHAM |  |  |
|  | KITT'S GREEN |  |  |
|  | Neighbourhood Centre (PPS6 Local Centre) |  |  |
|  | No Sub Category |  |  |
| 16 | Total Gross floor area: | $\begin{gathered} 2085 \mathrm{sqm} \\ 09 / 07 / 16 \end{gathered}$ | Survey Type: MANUAL WEST MI DLANDS |
|  | Survey date: SATURDAY |  |  |
|  | WM-01-C-02 LIDL |  |  |
|  | HIGH STREET |  |  |
|  | WEST BROMWICH |  |  |
|  | GUNS VILLAGE |  |  |
|  | Neighbourhood Centre (PPS6 Local Centre) |  |  |
|  | High Street |  |  |
|  | Total Gross floor area: | 2085 sqm |  |
|  | Survey date: SATURDAY | 09/07/16 | Survey Type: MANUAL |

LIST OF SITES relevant to selection parameters (Cont.)
17 WO-01-C-0
BLACKPOLE ROAD
WORCESTER
BRICKFIELDS
Edge of Town
Retail Zone
Total Gross floor area: Survey date: SATURDAY $\quad 2417$ sqm Survey date: SATURDAY 16/07/16 16/07/16 Survey Type: MANUAL

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

## TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES <br> TOTAL VEHI CLES <br> Calculation factor: 100 sqm <br> BOLD print indicates peak (busiest) period

| Time Range | ARRIVALS |  |  | DEPARTURES |  |  | TOTALS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00-01:00 |  |  |  |  |  |  |  |  |  |
| 01:00-02:00 |  |  |  |  |  |  |  |  |  |
| 02:00-03:00 |  |  |  |  |  |  |  |  |  |
| 03:00-04:00 |  |  |  |  |  |  |  |  |  |
| 04:00-05:00 |  |  |  |  |  |  |  |  |  |
| 05:00-06:00 |  |  |  |  |  |  |  |  |  |
| 06:00-07:00 |  |  |  |  |  |  |  |  |  |
| 07:00-08:00 | 13 | 2119 | 0.595 | 13 | 2119 | 0.120 | 13 | 2119 | 0.715 |
| 08:00-09:00 | 17 | 2018 | 2.524 | 17 | 2018 | 1.612 | 17 | 2018 | 4.136 |
| 09:00-10:00 | 17 | 2018 | 4.029 | 17 | 2018 | 3.201 | 17 | 2018 | 7.230 |
| 10:00-11:00 | 17 | 2018 | 5.297 | 17 | 2018 | 4.685 | 17 | 2018 | 9.982 |
| 11:00-12:00 | 17 | 2018 | 6.410 | 17 | 2018 | 5.973 | 17 | 2018 | 12.383 |
| 12:00-13:00 | 17 | 2018 | 6.230 | 17 | 2018 | 6.751 | 17 | 2018 | 12.981 |
| 13:00-14:00 | 17 | 2018 | 6.160 | 17 | 2018 | 5.973 | 17 | 2018 | 12.133 |
| 14:00-15:00 | 17 | 2018 | 5.740 | 17 | 2018 | 5.848 | 17 | 2018 | 11.588 |
| 15:00-16:00 | 17 | 2018 | 5.926 | 17 | 2018 | 6.113 | 17 | 2018 | 12.039 |
| 16:00-17:00 | 17 | 2018 | 5.550 | 17 | 2018 | 5.784 | 17 | 2018 | 11.334 |
| 17:00-18:00 | 17 | 2018 | 4.816 | 17 | 2018 | 5.031 | 17 | 2018 | 9.847 |
| 18:00-19:00 | 17 | 2018 | 3.454 | 17 | 2018 | 4.046 | 17 | 2018 | 7.500 |
| 19:00-20:00 | 17 | 2018 | 2.507 | 17 | 2018 | 3.003 | 17 | 2018 | 5.510 |
| 20:00-21:00 | 17 | 2018 | 1.498 | 17 | 2018 | 1.912 | 17 | 2018 | 3.410 |
| 21:00-22:00 | 17 | 2018 | 0.740 | 17 | 2018 | 1.134 | 17 | 2018 | 1.874 |
| 22:00-23:00 | 11 | 2112 | 0.082 | 11 | 2112 | 0.344 | 11 | 2112 | 0.426 |
| 23:00-24:00 |  |  |  |  |  |  |  |  |  |
| Total Rates: |  |  | 61.558 |  |  | 61.530 |  |  | 123.088 |

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

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

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

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

## Parameter summary

Trip rate parameter range selected:
Survey date date range:
Number of weekdays (Monday-Friday):
Number of Saturdays:
Number of Sundays:
Surveys automatically removed from selection:
Surveys manually removed from selection:

1485-2568 (units: sqm)
01/01/13-28/11/20
0
17
0
0
0

This section displays a quick summary of some of the data filtering selections made by the TRICS ${ }^{\circledR}$ 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.

| TRICS 7.8.1 | 240321 B20.15 | Database right of TRICS Consortium Limited, 2021. All rights reserved |
| :--- | :--- | :--- | | Thursday 01/04/ 21 |
| ---: |
| PF MM WD |

Filtering Summary
Land Use 01/C RETAIL/DISCOUNT FOOD STORES
Selected Trip Rate Calculation Parameter Range 900-2635 sqm GFA
Actual Trip Rate Calculation Parameter Range 1023-2568 sqm GFA
Date Range Minimum: 01/01/13
Maximum: 21/10/20
Parking Spaces Range All Surveys Included

Days of the week selected

Main Location Types selected

Population within 500 m
Population <1 Mile ranges selected

Population <5 Mile ranges selected

PTAL Rating

Monday 1
Tuesday 4
Wednesday 6
Thursday 4
Friday 3

Suburban Area (PPS6 Out of Centre) 4
Edge of Town 8
Neighbourhood Centre (PPS6 Local Centre) 6

All Surveys Included
1,001 to $5,000 \quad 1$
5,001 to 10,0004
10,001 to 15,000
15,001 to 20,0002
20,001 to 25,0001
25,001 to 50,0005
50,001 to 100,0002
5,001 to 25,0001
25,001 to 50,0003
50,001 to $75,000 \quad 1$
75,001 to 100,000 3
125,001 to 250,000 3
250,001 to 500,0003
500,001 or More 4
0.6 to 1.011
1.1 to $1.5 \quad 5$
1.6 to 2.01
2.1 to 2.51

No PTAL Present 16
2 Poor 1
4 Good 1

## TRIP RATE CALCULATI ON SELECTION PARAMETERS:

Land Use $: \quad 01$ - RETAIL
Category $\quad$ C - DISCOUNT FOOD STORES
MULTI-MODAL TOTAL VEHICLES

| Selected regions and areas: |  |  |
| :---: | :---: | :---: |
| 01 | GREATER LONDON |  |
|  | BE BEXLEY | 1 days |
|  | MR MERTON | 1 days |
| 02 | SOUTH EAST |  |
|  | WS WEST SUSSEX | 2 days |
| 03 | SOUTH WEST |  |
|  | SM SOMERSET | 1 days |
| 04 | EAST ANGLIA |  |
|  | CA CAMBRIDGESHIRE | 1 days |
|  | NF NORFOLK | 1 days |
| 05 | EAST MI DLANDS |  |
|  | NT NOTTINGHAMSHIRE | 1 days |
| 06 | WEST MIDLANDS |  |
|  | WM WEST MIDLANDS | 2 days |
|  | WO WORCESTERSHIRE | 1 days |
| 09 | NORTH |  |
|  | DH DURHAM | 1 days |
|  | TW TYNE \& WEAR | 1 days |
| 10 | WALES |  |
|  | CF CARDIFF | 1 days |
| 11 | SCOTLAND |  |
|  | AD ABERDEEN CITY | 1 days |
| 13 | MUNSTER |  |
|  | KE KERRY | 1 days |
| 15 | GREATER DUBLI $N$ |  |
|  | DL DUBLIN | 1 days |
| 17 | ULSTER (NORTHERN IRELAND) |  |
|  | AN ANTRIM | 1 days |

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

## Primary Filtering selection:

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

| Parameter: | Gross floor area |
| :--- | :--- |
| Actual Range: | 1023 to 2568 (units: sqm) |
| Range Selected by User: | 900 to 2635 (units: sqm) |
|  |  |
| Parking Spaces Range: | All Surveys Included |

Public Transport Provision:
Selection by: Include all surveys
Date Range: $\quad 01 / 01 / 13$ to $21 / 10 / 20$
This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

| Monday | 1 days |
| :--- | :--- |
| Tuesday | 4 days |
| Wednesday | 6 days |
| Thursday | 4 days |
| Friday | 3 days |

This data displays the number of selected surveys by day of the week.
Selected survey types:
Manual count 18 days
Directional ATC Count 0 days
This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:
Suburban Area (PPS6 Out of Centre) 4
Edge of Town
Neighbourhood Centre (PPS6 Local Centre)

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

## Secondary Filtering selection:

Use Class:
E(a)
18 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 ${ }^{\circledR}$.

Population within 500 m Range:
All Surveys Included
Population within 1 mile:

| 1,001 to 5,000 |  |
| :--- | :--- |
| 5,001 to 10,000 | 4 days |
| 10,001 to 15,000 | 3 days |
| 15,001 to 20,000 | 2 days |
| 20,001 to 25,000 | 1 days |
| 25,001 to 50,000 | 5 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 |  |
| 25,001 days |  |
| 50,001 to 75,000 | 3 days |
| 75,001 to 100,000 | 1 days |
| 125,001 to 250,000 | 3 days |
| 250,001 to 500,000 | 3 days |
| 500,001 or More | 3 days |
|  | 4 days |

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

| 0.6 to 1.0 | 11 days |
| :--- | ---: |
| 1.1 to 1.5 | 5 days |
| 1.6 to 2.0 | 1 days |
| 2.1 to 2.5 | 1 days |

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

Petrol filling station:

| Included in the survey count | 0 days |
| :--- | ---: |
| Excluded from count or no filling station | 18 days |

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

| Travel Plan: |  |
| :--- | ---: |
| Not Known | 1 days |
| Yes | 3 days |
| No | 14 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 |
| :--- | ---: |
| 2 Poor | 1 days |
| 4 Good | 1 days |

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

LIST OF SITES relevant to selection parameters

1 AD-01-C-01

## LI DL

GREENWELL ROAD
ABERDEEN
EAST TULLOS IND. ESTATE
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: Survey date: MONDAY
2
AN-01-C-02 LIDL
BELFAST ROAD
CARRICKFERGUS
Edge of Town
Development Zone
Total Gross floor area:
Survey date: WEDNESDAY
3 BE-01-C-01 LIDL
CLYDESDALE WAY
BELVEDERE
Edge of Town
Industrial Zone
Total Gross floor area: Survey date: WEDNESDAY
4 CA-01-C-01 LIDL
CROMWELL ROAD
WISBECH
Edge of Town
Retail Zone
Total Gross floor area:
Survey da
21/10/16
5 CF-01-C-01 LIDL
EAST TYNDALL STREET
CARDIFF
Suburban Area (PPS6 Out of Centre)
Development Zone
Total Gross floor area: Survey date: THURSDAY

2568 sqm 29/06/17
6 DH-01-C-01 ALDI
WATLING ROAD
BISHOP AUCKLAND
Edge of Town
Retail Zone
Total Gross floor area: 1023 sqm Survey date: THURSDAY 06/04/17
7 DL-01-C-01 LIDL
SALLYNOGGIN ROAD
DUBLIN
THOMASTOWN
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total Gross floor area: 2163 sqm Survey date: WEDNESDAY 20/06/18
8 KE-01-C-01 ALDI
DEERPARK ROAD
KILLARNEY
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Gross floor area:
Survey date: THURSDAY $17 / 10 / 19$

## ABERDEEN CITY

Survey Type: MANUAL ANTRIM

Survey Type: MANUAL

## BEXLEY

Survey Type: MANUAL CAMBRIDGESHIRE

Survey Type: MANUAL CARDI FF

Survey Type: MANUAL

## DURHAM

 DUBLI NSurvey Type: MANUAL KERRY

Survey Type: MANUAL

| TRICS 7.8.1 240321 B20.15 DF MM WD | Database right of TRICS Consortium Limited, 2021. All rights reserved | Thursday 01/04/ 21 Page 5 |
| :---: | :---: | :---: |
| Entran Ltd Chapel Pill Lane | Bristol | Licence No: 337901 |

LIST OF SITES relevant to selection parameters (Cont.)

9 MR-01-C-01
STREATHAM ROAD
MITCHAM
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total Gross floor area: 2400 sqm Survey date: WEDNESDAY 06/11/19
10
NF-01-C-01 LIDL
AYLSHAM ROAD
NORWICH
Neighbourhood Centre (PPS6 Local Centre)
No Sub Category
Total Gross floor area: 2555 sqm Survey date: FRIDAY 29/11/19
11 NT-01-C-01 LIDL
CHAPEL LANE
BINGHAM
Edge of Town
Industrial Zone
Total Gross floor area: Survey date: FRIDAY
12 SM-01-C-01 LIDL
SEAWARD WAY
MINEHEAD
Edge of Town
No Sub Category
Total Gross floor area:
2247 sqm
Survey date: THURSDAY 22/06/17
13 TW-01-C-01 ALDI
EDGEFIELD AVENUE
NEWCASTLE
FAWDON
Neighbourhood Centre (PPS6 Local Centre)
No Sub Category
Total Gross floor area: 1798 sqm Survey date: TUESDAY 30/04/19
14 WM-01-C-01 LIDL
MACKADOWN LANE
BIRMINGHAM
KITT'S GREEN
Neighbourhood Centre (PPS6 Local Centre)
No Sub Category
Total Gross floor area: 2085 sqm Survey date: TUESDAY 12/07/16
15 WM-01-C-02 LIDL
HIGH STREET
WEST BROMWICH
GUNS VILLAGE
Neighbourhood Centre (PPS6 Local Centre)
High Street
Total Gross floor area: 2085 sqm Survey date: TUESDAY 12/07/16

## MERTON

Survey Type: MANUAL NORFOLK

Survey Type: MANUAL NOTTI NGHAMSHIRE

Survey Type: MANUAL

## SOMERSET

Survey Type: MANUAL TYNE \& WEAR

Survey Type: MANUAL WEST MIDLANDS

Survey Type: MANUAL WEST MIDLANDS

Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

16 | WO-01-C-01 LIDL |
| :--- | :--- | :--- |
| BLACKPOLE ROAD |
| WORCESTER |
| BRICKFIELDS |$\quad$ WORCESTERSHI RE

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

## TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

## MULTI-MODAL TOTAL VEHICLES

Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period


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

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

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

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

## Parameter summary

Trip rate parameter range selected:
Survey date date range:
Number of weekdays (Monday-Friday):
Number of Saturdays:
Number of Sundays:
Surveys automatically removed from selection:
Surveys manually removed from selection:

1023-2568 (units: sqm)
01/01/13-21/10/20
18
0
0
0

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

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES
MULTI-MODAL TAXIS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period


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

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

## TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

MULTI-MODAL OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period


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

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

## TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

MULTI-MODAL PSVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period


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

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

## TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

MULTI-MODAL CYCLISTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period


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

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

## TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

MULTI-MODAL VEHICLE OCCUPANTS

## 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 |
| 00:00-01:00 |  |  |  |  |  |  |  |  |  |
| 01:00-02:00 |  |  |  |  |  |  |  |  |  |
| 02:00-03:00 |  |  |  |  |  |  |  |  |  |
| 03:00-04:00 |  |  |  |  |  |  |  |  |  |
| 04:00-05:00 |  |  |  |  |  |  |  |  |  |
| 05:00-06:00 |  |  |  |  |  |  |  |  |  |
| 06:00-07:00 | 2 | 1871 | 0.561 | 2 | 1871 | 0.000 | 2 | 1871 | 0.561 |
| 07:00-08:00 | 17 | 2024 | 0.590 | 17 | 2024 | 0.206 | 17 | 2024 | 0.796 |
| 08:00-09:00 | 18 | 1987 | 3.068 | 18 | 1987 | 2.008 | 18 | 1987 | 5.076 |
| 09:00-10:00 | 18 | 1987 | 4.200 | 18 | 1987 | 3.467 | 18 | 1987 | 7.667 |
| 10:00-11:00 | 18 | 1987 | 4.913 | 18 | 1987 | 4.496 | 18 | 1987 | 9.409 |
| 11:00-12:00 | 18 | 1987 | 5.509 | 18 | 1987 | 5.251 | 18 | 1987 | 10.760 |
| 12:00-13:00 | 18 | 1987 | 5.783 | 18 | 1987 | 5.903 | 18 | 1987 | 11.686 |
| 13:00-14:00 | 18 | 1987 | 5.813 | 18 | 1987 | 6.040 | 18 | 1987 | 11.853 |
| 14:00-15:00 | 18 | 1987 | 5.657 | 18 | 1987 | 5.788 | 18 | 1987 | 11.445 |
| 15:00-16:00 | 18 | 1987 | 5.811 | 18 | 1987 | 5.730 | 18 | 1987 | 11.541 |
| 16:00-17:00 | 18 | 1987 | 5.646 | 18 | 1987 | 5.909 | 18 | 1987 | 11.555 |
| 17:00-18:00 | 18 | 1987 | 5.100 | 18 | 1987 | 5.537 | 18 | 1987 | 10.637 |
| 18:00-19:00 | 18 | 1987 | 4.935 | 18 | 1987 | 5.165 | 18 | 1987 | 10.100 |
| 19:00-20:00 | 18 | 1987 | 3.649 | 18 | 1987 | 4.038 | 18 | 1987 | 7.687 |
| 20:00-21:00 | 18 | 1987 | 2.340 | 18 | 1987 | 2.922 | 18 | 1987 | 5.262 |
| 21:00-22:00 | 18 | 1987 | 1.054 | 18 | 1987 | 1.585 | 18 | 1987 | 2.639 |
| 22:00-23:00 | 16 | 2017 | 0.050 | 16 | 2017 | 0.285 | 16 | 2017 | 0.335 |
| 23:00-24:00 |  |  |  |  |  |  |  |  |  |
| Total Rates: |  |  | 64.679 |  |  | 64.330 |  |  | 129.009 |

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.

## TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

## MULTI-MODAL PEDESTRIANS

## Calculation factor: 100 sqm

## BOLD print indicates peak (busiest) period



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

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

## TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

MULTI-MODAL BUS/ TRAM PASSENGERS

## Calculation factor: 100 sqm

## BOLD print indicates peak (busiest) period



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

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

## TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

## MULTI-MODAL TOTAL RAIL PASSENGERS

## 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 |
| 00:00-01:00 |  |  |  |  |  |  |  |  |  |
| 01:00-02:00 |  |  |  |  |  |  |  |  |  |
| 02:00-03:00 |  |  |  |  |  |  |  |  |  |
| 03:00-04:00 |  |  |  |  |  |  |  |  |  |
| 04:00-05:00 |  |  |  |  |  |  |  |  |  |
| 05:00-06:00 |  |  |  |  |  |  |  |  |  |
| 06:00-07:00 | 2 | 1871 | 0.000 | 2 | 1871 | 0.000 | 2 | 1871 | 0.000 |
| 07:00-08:00 | 17 | 2024 | 0.006 | 17 | 2024 | 0.000 | 17 | 2024 | 0.006 |
| 08:00-09:00 | 18 | 1987 | 0.011 | 18 | 1987 | 0.003 | 18 | 1987 | 0.014 |
| 09:00-10:00 | 18 | 1987 | 0.006 | 18 | 1987 | 0.003 | 18 | 1987 | 0.009 |
| 10:00-11:00 | 18 | 1987 | 0.011 | 18 | 1987 | 0.003 | 18 | 1987 | 0.014 |
| 11:00-12:00 | 18 | 1987 | 0.006 | 18 | 1987 | 0.003 | 18 | 1987 | 0.009 |
| 12:00-13:00 | 18 | 1987 | 0.006 | 18 | 1987 | 0.011 | 18 | 1987 | 0.017 |
| 13:00-14:00 | 18 | 1987 | 0.003 | 18 | 1987 | 0.014 | 18 | 1987 | 0.017 |
| 14:00-15:00 | 18 | 1987 | 0.006 | 18 | 1987 | 0.011 | 18 | 1987 | 0.017 |
| 15:00-16:00 | 18 | 1987 | 0.006 | 18 | 1987 | 0.006 | 18 | 1987 | 0.012 |
| 16:00-17:00 | 18 | 1987 | 0.020 | 18 | 1987 | 0.011 | 18 | 1987 | 0.031 |
| 17:00-18:00 | 18 | 1987 | 0.008 | 18 | 1987 | 0.003 | 18 | 1987 | 0.011 |
| 18:00-19:00 | 18 | 1987 | 0.008 | 18 | 1987 | 0.008 | 18 | 1987 | 0.016 |
| 19:00-20:00 | 18 | 1987 | 0.003 | 18 | 1987 | 0.003 | 18 | 1987 | 0.006 |
| 20:00-21:00 | 18 | 1987 | 0.000 | 18 | 1987 | 0.003 | 18 | 1987 | 0.003 |
| 21:00-22:00 | 18 | 1987 | 0.003 | 18 | 1987 | 0.003 | 18 | 1987 | 0.006 |
| 22:00-23:00 | 16 | 2017 | 0.000 | 16 | 2017 | 0.006 | 16 | 2017 | 0.006 |
| 23:00-24:00 |  |  |  |  |  |  |  |  |  |
| Total Rates: |  |  | 0.103 |  |  | 0.091 |  |  | 0.194 |

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

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

## TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

## MULTI-MODAL PUBLIC TRANSPORT USERS

## Calculation factor: 100 sqm

## BOLD print indicates peak (busiest) period



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

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

## TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

MULTI-MODAL TOTAL PEOPLE
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period


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

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

## TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

MULTI-MODAL 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 |
| 00:00-01:00 |  |  |  |  |  |  |  |  |  |
| 01:00-02:00 |  |  |  |  |  |  |  |  |  |
| 02:00-03:00 |  |  |  |  |  |  |  |  |  |
| 03:00-04:00 |  |  |  |  |  |  |  |  |  |
| 04:00-05:00 |  |  |  |  |  |  |  |  |  |
| 05:00-06:00 |  |  |  |  |  |  |  |  |  |
| 06:00-07:00 | 2 | 1871 | 0.401 | 2 | 1871 | 0.000 | 2 | 1871 | 0.401 |
| 07:00-08:00 | 17 | 2024 | 0.398 | 17 | 2024 | 0.131 | 17 | 2024 | 0.529 |
| 08:00-09:00 | 18 | 1987 | 2.198 | 18 | 1987 | 1.448 | 18 | 1987 | 3.646 |
| 09:00-10:00 | 18 | 1987 | 2.883 | 18 | 1987 | 2.396 | 18 | 1987 | 5.279 |
| 10:00-11:00 | 18 | 1987 | 3.230 | 18 | 1987 | 2.947 | 18 | 1987 | 6.177 |
| 11:00-12:00 | 18 | 1987 | 3.727 | 18 | 1987 | 3.546 | 18 | 1987 | 7.273 |
| 12:00-13:00 | 18 | 1987 | 3.971 | 18 | 1987 | 3.962 | 18 | 1987 | 7.933 |
| 13:00-14:00 | 18 | 1987 | 3.906 | 18 | 1987 | 4.074 | 18 | 1987 | 7.980 |
| 14:00-15:00 | 18 | 1987 | 3.800 | 18 | 1987 | 4.001 | 18 | 1987 | 7.801 |
| 15:00-16:00 | 18 | 1987 | 3.809 | 18 | 1987 | 3.817 | 18 | 1987 | 7.626 |
| 16:00-17:00 | 18 | 1987 | 3.783 | 18 | 1987 | 3.884 | 18 | 1987 | 7.667 |
| 17:00-18:00 | 18 | 1987 | 3.498 | 18 | 1987 | 3.708 | 18 | 1987 | 7.206 |
| 18:00-19:00 | 18 | 1987 | 3.157 | 18 | 1987 | 3.400 | 18 | 1987 | 6.557 |
| 19:00-20:00 | 18 | 1987 | 2.374 | 18 | 1987 | 2.615 | 18 | 1987 | 4.989 |
| 20:00-21:00 | 18 | 1987 | 1.532 | 18 | 1987 | 1.899 | 18 | 1987 | 3.431 |
| 21:00-22:00 | 18 | 1987 | 0.688 | 18 | 1987 | 1.060 | 18 | 1987 | 1.748 |
| 22:00-23:00 | 16 | 2017 | 0.031 | 16 | 2017 | 0.204 | 16 | 2017 | 0.235 |
| 23:00-24:00 |  |  |  |  |  |  |  |  |  |
| Total Rates: |  |  | 43.386 |  |  | 43.092 |  |  | 86.478 |

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

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

## TRIP RATE for Land Use 01-RETAIL/C - DISCOUNT FOOD STORES

MULTI-MODAL LGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period


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

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

## TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

MULTI-MODAL MOTOR CYCLES

## Calculation factor: 100 sqm

## BOLD print indicates peak (busiest) period



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

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

## TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

## MULTI-MODAL National Rail Passengers

## Calculation factor: 100 sqm

## BOLD print indicates peak (busiest) period



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

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

## TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

## MULTI-MODAL Bus Passengers

## Calculation factor: 100 sqm

## BOLD print indicates peak (busiest) period



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.

| TRICS 7.8.1 | 240321 B20.15 | Database right of TRICS Consortium Limited, 2021. All rights reserved | Thursday 01/04/ 21 <br> DF WD |
| :--- | :--- | :--- | ---: |
| Entran Ltd | Chapel Pill Lane | Bristol | Licence No: 337901 |

## Filtering Summary

Land Use
01/C
RETAIL/DISCOUNT FOOD STORES
Selected Trip Rate Calculation Parameter Range 700-2703 sqm GFA
Actual Trip Rate Calculation Parameter Range 700-2568 sqm GFA
Date Range
Parking Spaces Range
Days of the week selected

Main Location Types selected

Population within 500 m
Population <1 Mile ranges selected

Population <5 Mile ranges selected

PTAL Rating

Maximum: 28/11/20

Monday 2
Tuesday 4
Wednesday 7
Thursday 4
Friday 3
Suburban Area (PPS6 Out of Centre) 4
Edge of Town 8 Neighbourhood Centre (PPS6 Local Centre) 8

All Surveys Included
1,001 to $5,000 \quad 1$
5,001 to $10,000 \quad 4$
10,001 to 15,0003
15,001 to 20,000 3
20,001 to $25,000 \quad 1$
25,001 to $50,000 \quad 6$
50,001 to $100,000 \quad 2$
5,001 to 25,000 1
25,001 to 50,0003
50,001 to $75,000 \quad 2$
75,001 to 100,0003
125,001 to 250,0003
250,001 to 500,0003
500,001 or More 5
0.6 to $1.0 \quad 12$
1.1 to $1.5 \quad 6$
1.6 to 2.0 1
2.1 to $2.5 \quad 1$

No PTAL Present 18
2 Poor 1
4 Good 1

## TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01-RETAIL
Category : C - DISCOUNT FOOD STORES

## TOTAL VEHI CLES

| 01 | GREATER LONDON |  |
| :---: | :---: | :---: |
|  | BE BEXLEY | 1 days |
|  | MR MERTON | 1 days |
| 02 | SOUTH EAST |  |
|  | WS WEST SUSSEX | 2 days |
| 03 | SOUTH WEST |  |
|  | SM SOMERSET | 1 days |
| 04 | EAST ANGLIA |  |
|  | CA CAMBRIDGESHIRE | 1 days |
|  | NF NORFOLK | 1 days |
| 05 | EAST MIDLANDS |  |
|  | NT NOTTINGHAMSHIRE | 1 days |
| 06 | WEST MIDLANDS |  |
|  | WM WEST MIDLANDS | 2 days |
|  | WO WORCESTERSHIRE | 1 days |
| 07 | YORKSHIRE \& NORTH LINCOLNSHIRE |  |
|  | WY WEST YORKSHIRE | 1 days |
| 09 | NORTH |  |
|  | DH DURHAM | 1 days |
|  | TW TYNE \& WEAR | 1 days |
| 10 | WALES |  |
|  | CF CARDIFF | 1 days |
| 11 | SCOTLAND |  |
|  | AD ABERDEEN CITY | 1 days |
|  | SR STIRLING | 1 days |
| 13 | MUNSTER |  |
|  | KE KERRY | 1 days |
| 15 | GREATER DUBLI N |  |
|  | DL DUBLIN | 1 days |
| 17 | ULSTER (NORTHERN IRELAND) |  |
|  | AN ANTRIM | 1 days |

This section displays the number of survey days per TRICS $\circledR$ 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: | 700 to 2568 (units: sqm) |
| Range Selected by User: | 700 to 2703 (units: sqm) |
| Parking Spaces Range: | All Surveys Included |

Public Transport Provision: Selection by:

> Include all surveys

Date Range: $\quad 01 / 01 / 13$ to 28/11/20
This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

| Monday | 2 days |
| :--- | :--- |
| Tuesday | 4 days |
| Wednesday | 7 days |
| Thursday | 4 days |
| Friday | 3 days |

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

| Selected survey types: | 20 days |
| :--- | ---: |
| Manual count | 0 days |

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

Selected Locations:
Suburban Area (PPS6 Out of Centre) 4
Edge of Town
Neighbourhood Centre (PPS6 Local Centre)

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
Development Zone 2
Residential Zone 3
Retail Zone 5
High Street 1
No Sub Category 5
This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

## Secondary Filtering selection:

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

Population within 500m Range:
All Surveys Included
Population within 1 mile:

| 1,001 to 5,000 | 1 days |
| :--- | :--- |
| 5,001 to 10,000 | 4 days |
| 10,001 to 15,000 | 3 days |
| 15,001 to 20,000 | 3 days |
| 20,001 to 25,000 | 1 days |
| 25,001 to 50,000 | 6 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 |  |
| 25,001 days |  |
| 50,001 to 50,000 | 3 days |
| 75,001 to 100,000 | 2 days |
| 125,001 to 250,000 | 3 days |
| 250,001 to 500,000 | 3 days |
| 500,001 or More | 3 days |
|  | 5 days |

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

| 0.6 to 1.0 | 12 days |
| :--- | ---: |
| 1.1 to 1.5 | 6 days |
| 1.6 to 2.0 | 1 days |
| 2.1 to 2.5 | 1 days |

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

Petrol filling station:
Included in the survey count
0 days
Excluded from count or no filling station
This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

| Travel Plan: |  |
| :--- | ---: |
| Not Known | 1 days |
| Yes | 3 days |
| No | 16 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 | 18 days |
| :--- | ---: |
| 2 Poor | 1 days |
| 4 Good | 1 days |

4 Good
1 days

This data displays the number of selected surveys with PTAL Ratings

1 AD-01-C-01

## LIDL

GREENWELL ROAD
ABERDEEN
EAST TULLOS IND. ESTATE
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: Survey date: MONDAY
2
AN-01-C-02 LIDL
BELFAST ROAD
CARRICKFERGUS
Edge of Town
Development Zone
Total Gross floor area:
Survey date: WEDNESDAY
3 BE-01-C-01
LIDL
CLYDESDALE WAY
BELVEDERE
Edge of Town
Industrial Zone
Total Gross floor area: Survey date: WEDNESDAY
4 CA-01-C-01 LIDL
CROMWELL ROAD
WISBECH
Edge of Town
Retail Zone
Total Gross floor area:
1466 sqm
21/10/16
5 CF-01-C-01 LIDL
EAST TYNDALL STREET
CARDIFF
Suburban Area (PPS6 Out of Centre)
Development Zone
Total Gross floor area: Survey date: THURSDAY

2568 sqm 29/06/17
6 DH-01-C-01 ALDI
WATLING ROAD
BISHOP AUCKLAND
Edge of Town
Retail Zone
Total Gross floor area: 1023 sqm Survey date: THURSDAY 06/04/17
7 DL-01-C-01 LIDL
SALLYNOGGIN ROAD
DUBLIN
THOMASTOWN
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total Gross floor area: 2163 sqm Survey date: WEDNESDAY 20/06/18
8 KE-01-C-01 ALDI
DEERPARK ROAD
KILLARNEY
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Gross floor area:
Survey date: THURSDAY $17 / 10 / 19$

## ABERDEEN CITY

Survey Type: MANUAL ANTRIM

Survey Type: MANUAL

## BEXLEY

Survey Type: MANUAL CAMBRIDGESHIRE

Survey Type: MANUAL CARDIFF

Survey Type: MANUAL

## DURHAM

Survey Type: MANUAL DUBLI N

Survey Type: MANUAL KERRY

Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

9 MR-01-C-01
LIDL
STREATHAM ROAD
MITCHAM
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total Gross floor area: 2400 sqm Survey date: WEDNESDAY 06/11/19
10
NF-01-C-01
LIDL
AYLSHAM ROAD
NORWICH
Neighbourhood Centre (PPS6 Local Centre)
No Sub Category
Total Gross floor area: 2555 sqm Survey date: FRIDAY 29/11/19
11 NT-01-C-01 LIDL
CHAPEL LANE
BINGHAM
Edge of Town
Industrial Zone
Total Gross floor area: Survey date: FRIDAY

2440 sqm 15/07/16
12 SM-01-C-01 LIDL
SEAWARD WAY
MINEHEAD
Edge of Town
No Sub Category
Total Gross floor area Survey date: THURSDAY $\quad 22 / 06 / 17$
13 SR-01-C-02
LIDL
WEAVER ROW
STIRLING
SAINT NINIANS
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total Gross floor area: 1559 sqm Survey date: WEDNESDAY 09/09/20
14 TW-01-C-01 ALDI
EDGEFIELD AVENUE
NEWCASTLE
FAWDON
Neighbourhood Centre (PPS6 Local Centre)
No Sub Category
Total Gross floor area: 1798 sqm Survey date: TUESDAY 30/04/19
15 WM-01-C-01 LIDL
MACKADOWN LANE
BIRMI NGHAM
KITT'S GREEN
Neighbourhood Centre (PPS6 Local Centre)
No Sub Category
Total Gross floor area: 2085 sqm Survey date: TUESDAY 12/07/16

## MERTON

Survey Type: MANUAL NORFOLK

Survey Type: MANUAL NOTTI NGHAMSHI RE

## SOMERSET

Survey Type: MANUAL

## STI RLI NG

Survey Type: MANUAL TYNE \& WEAR

Survey Type: MANUAL WEST MI DLANDS

LIST OF SITES relevant to selection parameters (Cont.)

| 16 | WM-01-C-02 LIDL |  | WEST MI DLANDS |
| :---: | :---: | :---: | :---: |
|  | HIGH STREET |  |  |
|  | WEST BROMWICH |  |  |
|  | GUNS VILLAGE |  |  |
|  | Neighbourhood Centre (PPS6 Local Centre) |  |  |
|  | High Street |  |  |
|  | Total Gross floor area: | 2085 sqm |  |
|  | Survey date: TUESDAY | 12/07/16 | Survey Type: MANUAL |
| 17 | WO-01-C-01 LIDL |  | WORCESTERSHIRE |
|  | BLACKPOLE ROAD |  |  |
|  | WORCESTER |  |  |
|  | BRICKFIELDS |  |  |
|  | Edge of Town |  |  |
|  | Retail Zone |  |  |
|  | Total Gross floor area: | 2417 sqm |  |
|  | Survey date: WEDNESDAY | 13/07/16 | Survey Type: MANUAL |
| 18 | WS-01-C-01 LIDL |  | WEST SUSSEX |
|  | WESTHAMPNETT ROAD |  |  |
|  | CHICHESTER |  |  |
|  | Edge of Town |  |  |
|  | Retail Zone |  |  |
|  | Total Gross floor area: | 2125 sqm |  |
|  | Survey date: TUESDAY | 20/10/20 | Survey Type: MANUAL |
| 19 | WS-01-C-02 LIDL |  | WEST SUSSEX |
|  | FOUNDRY LANE |  |  |
|  | HORSHAM |  |  |
|  | Suburban Area (PPS6 Out of Centre) |  |  |
|  | Industrial Zone |  |  |
|  | Total Gross floor area: | 1616 sqm |  |
|  | Survey date: WEDNESDAY | 21/10/20 | Survey Type: MANUAL |
| 20 | WY-01-C-01 FARMFOODS |  | WEST YORKSHIRE |
|  | WATERLOO TERRACE |  |  |
|  | LEEDS |  |  |
|  | BRAMLEY |  |  |
|  | Neighbourhood Centre (PPS6 Local Centre) |  |  |
|  | Retail Zone |  |  |
|  | Total Gross floor area: | 700 sqm |  |
|  | Survey date: MONDAY | 19/10/15 | Survey Type: MANUAL |

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

## TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES <br> TOTAL VEHI CLES <br> Calculation factor: 100 sqm <br> BOLD print indicates peak (busiest) period



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

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

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

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

## Parameter summary

Trip rate parameter range selected:
Survey date date range:
Number of weekdays (Monday-Friday):
Number of Saturdays:
Number of Sundays:
Surveys automatically removed from selection:
Surveys manually removed from selection:

700-2568 (units: sqm)
01/01/13-28/11/20
20
0
0
0
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.

## Appendix E <br> PICADY Outputs

| JUПCtions 10 |
| :---: |
| PICADY 10 - Priority Intersection Module |
| Version: 10.0.2.1574 © Copyright TRL Software Limited, 2021 |
| For sales and distribution information, program advice and maintenance, contact TRL Software: +44 (0)1344379777 software@trl.co.uk trlsoftware.com |
| The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution |

Filename: Site Access_Pontfaen Rd.j10
Path: F:\clients\EnTran\ALDI Lampeter
Report generation date: 27/10/2021 19:48:11

```
"2022 Base +Dev, AM
"2022 Base +Dev, PM
"2022 Base +Dev, SAT
"2027 Base +Dev, AM
"2027 Base +Dev, PM
"2027 Base +Dev, SAT
```


## Summary of junction performance

|  | AM |  |  | PM |  |  | SAT |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Queue (Veh) | Delay (s) | RFC | Queue (Veh) | Delay (s) | RFC | Queue (Veh) | Delay (s) | RFC |
|  | 2022 Base +Dev |  |  |  |  |  |  |  |  |
| Stream B-AC | 0.1 | 7.02 | 0.06 | 0.2 | 8.00 | 0.17 | 0.3 | 8.82 | 0.24 |
| Stream C-AB | 0.1 | 4.97 | 0.07 | 0.2 | 5.70 | 0.12 | 0.3 | 5.90 | 0.19 |
| Stream A-BC | 0.2 | 3.19 | 0.15 | 0.3 | 3.36 | 0.21 | 0.3 | 3.17 | 0.20 |
|  | 2027 Base + Dev |  |  |  |  |  |  |  |  |
| Stream B-AC | 0.1 | 7.06 | 0.06 | 0.2 | 8.05 | 0.17 | 0.3 | 8.90 | 0.24 |
| Stream C-AB | 0.1 | 4.94 | 0.08 | 0.2 | 5.69 | 0.12 | 0.3 | 5.88 | 0.19 |
| Stream A-BC | 0.2 | 3.21 | 0.16 | 0.3 | 3.40 | 0.22 | 0.3 | 3.20 | 0.21 |

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 | A475 Pontfaen Rd / Site Access |
| :--- | :--- |
| Location |  |
| Site number |  |
| Date | $27 / 10 / 2021$ |
| Version |  |
| Status |  |
| Identifier |  |
| Client |  |
| Jobnumber |  |
| Enumerator | al |
| 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 | Veh | Veh | perHour | s | perHour |  |



Flows show orginal traftic demand (Vehhr).
Streams (downstream end) show RFC 0 .
The junction diagram reflects the last run of Junctions.

## Analysis Options

| Vehicle length (m) | Calculate Queue Percentiles | Calculate detailed queueing delay | Show lane queues in feet/ metres | Show all PICADY stream intercepts | Calculate residual capacity | RFC <br> Threshold | Average Delay threshold (s) | Queue threshold (PCU) | Use iterations with HCM roundabouts | Max number of iterations for roundabouts |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5.75 |  |  |  |  |  | 0.85 | 36.00 | 20.00 |  | 500 |

Demand Set Summary

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| D1 | 2022 Base +Dev | AM | ONE HOUR | $07: 45$ | $09: 15$ | 15 | $\checkmark$ |
| D2 | 2022 Base +Dev | PM | ONE HOUR | $16: 45$ | $18: 15$ | 15 |  |
| D3 | 2022 Base +Dev | SAT | ONE HOUR | $10: 45$ | $12: 15$ | 15 |  |
| D4 | 2027 Base +Dev | AM | ONE HOUR | $07: 45$ | $09: 15$ | 15 | $\checkmark$ |
| D5 | 2027 Base +Dev | PM | ONE HOUR | $16: 45$ | $18: 15$ | 15 | $\checkmark$ |
| D6 | 2027 Base +Dev | SAT | ONE HOUR | $10: 45$ | $12: 15$ | 15 | $\checkmark$ |

## Analysis Set Details

| ID | Include in report | Network flow scaling factor (\%) | Network capacity scaling factor (\%) |
| :---: | :---: | :---: | :---: |
| A1 | $\checkmark$ | 100.000 | 100.000 |

THE FUTURE

## 2022 Base +Dev, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

## Junctions

| Junction | Name | Junction type | Arm A Direction | Arm B Direction | Arm C Direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | A475 Pontfaen Rd / Site Access | T-Junction | Two-way | Two-way | Two-way |  | 1.92 | A |

## Junction Network

| Driving side | Lighting | Network delay (s) | Network LOS |
| :---: | :---: | :---: | :---: |
| Left | Normal/unknown | 1.92 | A |

## Arms

## Arms

| Arm | Name | Description | Arm type |
| :---: | :--- | :--- | :--- |
| A | Pontfaen Rd (E) |  | Major |
| B | Site Access |  | Minor |
| C | Pontfaen Rd (W) |  | Major |

## Major Arm Geometry

| Arm | Width of carriageway <br> $(\mathrm{m})$ | Has kerbed central <br> reserve | Has rightturn <br> storage | Visibility for right turn <br> $(\mathbf{m})$ | Blocks? |
| :---: | :---: | :---: | :---: | :---: | :---: |
| C - Pontfaen Rd (W) | 9.00 |  |  | 155.0 |  |

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 Access | One lane | 3.80 | 18 | 18 |

## Pelican/Puffin Crossings

| Arm | Space between crossing and junc. entry (Signalised) (PCU) | Amber time preceding red (s) | Amber time regarded as green (s) | Time from traffic red start to green man start (s) | Time period green man shown (s) | Clearance <br> Period (s) | Traffic minimum green (s) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A - Pontfaen Rd (E) | 4.00 | 3.00 | 2.00 | 3.00 | 6.00 | 8.00 | 30.00 |

Slope / Intercept / Capacity
Priority Intersection Slopes and Intercepts

| Stream | Intercept <br> (Veh/hr) | Slope <br> for <br> AB | Slope <br> for <br> AC | Slope <br> for <br> C-A | Slope <br> for <br> C-B |
| :---: | :---: | :---: | :---: | :---: | :---: |
| B-A | 532 | 0.084 | 0.213 | 0.134 | 0.304 |
| B-C | 686 | 0.091 | 0.231 | - | - |
| C-B | 664 | 0.224 | 0.224 | - | - |

The slopes and intercepts shown above include custom intercept adjustments only.
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 | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| D1 | 2022 Base +Dev | AM | ONE HOUR | $07: 45$ | $09: 15$ | 15 | $\checkmark$ |


| Vehicle mix varies over turn | Vehicle mix varies over entry | Vehicle mix source | PCU Factor for a HV (PCU) |
| :---: | :---: | :---: | :---: |
| $\checkmark$ | $\checkmark$ | HV Percentages | 2.00 |

## Demand overview (Traffic)

| Arm | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (\%) |
| :--- | :---: | :---: | :---: | :---: | :---: |
| A- Pontfaen Rd (E) |  | ONE HOUR | $\checkmark$ | 188 | 100.000 |
| B - Site Access |  | ONE HOUR | $\checkmark$ | 31 | 100.000 |
| C - Pontfaen Rd (W) |  | ONE HOUR | $\checkmark$ | 326 | 100.000 |

## Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
| :--- | :---: | :---: |
| A - Pontfaen Rd (E) | [ONEHOUR] | 200.00 |
| B - Site Access |  |  |
| C - Pontfaen Rd (W) |  |  |

## Origin-Destination Data

Demand (Veh/hr)

|  | To |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| From |  | A - Pontfaen Rd (E) | B - Site Access | C - Pontfaen Rd (W) |
|  | A - Pontfaen Rd (E) | 0 | 14 | 174 |
|  | B - Site Access | 10 | 0 | 21 |
|  | C - Pontfaen Rd (W) | 293 | 33 | 0 |

## Vehicle Mix

Heavy Vehicle Percentages

|  | To |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| From |  | A - Pontfaen Rd (E) | B - Site Access | C - Pontfaen Rd (W) |
|  | A - Pontfaen Rd (E) | 0 | 0 | 14 |
|  | B - Site Access | 0 | 0 | 0 |
|  | C - Pontfaen Rd (W) | 12 | 0 | 0 |

## Results

Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS | Average Demand <br> (Veh/hr) | Total Junction <br> Arrivals (Veh) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 0.06 | 7.02 | 0.1 | A | 28 | 43 |
| C-AB | 0.07 | 4.97 | 0.1 | A | 47 | 70 |
| C-A |  |  |  |  | 252 | 379 |
| ABC | 0.15 | 3.19 | 0.2 | A | 173 | 259 |

THE FUTURE

## Main Results for each time segment

07:45-08:00

| Stream | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals (Veh) | Pedestrian <br> demand <br> (Ped/hr) | Capacity <br> $(\mathbf{V e h} / \mathrm{hr})$ | RFC | Throughput <br> (Veh/hr) | Start queue <br> (Veh) | End queue <br> (Veh) | Delay (s) | Unsignalised <br> (evel of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 23 | 6 |  | 573 | 0.041 | 23 | 0.0 | 0.0 | 6.544 |  |
| C-AB | 35 | 9 |  | 762 | 0.046 | 35 | 0.0 | 0.1 | 4.946 | A |
| C-A | 210 | 53 |  |  |  | 210 |  |  |  |  |
| ABC | 142 | 35 | 150.57 | 1374 | 0.103 | 141 | 0.0 | 0.1 | 2.921 | A |

08:00-08:15

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 28 | 7 |  | 562 | 0.050 | 28 | 0.0 | 0.1 | 6.737 | A |
| C-AB | 45 | 11 |  | 783 | 0.057 | 45 | 0.1 | 0.1 | 4.869 | A |
| C-A | 248 | 62 |  |  |  | 248 |  |  |  |  |
| ABC | 169 | 42 | 179.80 | 1356 | 0.125 | 169 | 0.1 | 0.1 | 3.033 | A |

08:15-08:30

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 34 | 9 |  | 547 | 0.062 | 34 | 0.1 | 0.1 | 7.020 | A |
| C-AB | 60 | 15 |  | 811 | 0.075 | 60 | 0.1 | 0.1 | 4.780 | A |
| C-A | 298 | 75 |  |  |  | 298 |  |  |  |  |
| ABC | 207 | 52 | 220.20 | 1336 | 0.155 | 207 | 0.1 | 0.2 | 3.188 | A |

08:30-08:45

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Pedestrian demand (Ped/hr) | Capacity <br> (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 34 | 9 |  | 547 | 0.062 | 34 | 0.1 | 0.1 | 7.020 | A |
| C-AB | 61 | 15 |  | 811 | 0.075 | 61 | 0.1 | 0.1 | 4.798 | A |
| C-A | 298 | 75 |  |  |  | 298 |  |  |  |  |
| ABC | 207 | 52 | 220.20 | 1336 | 0.155 | 207 | 0.2 | 0.2 | 3.188 | A |

08:45-09:00

| Stream | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals (Veh) | Pedestrian <br> demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | RFC | Throughput <br> (Veh/hr) | Start queue <br> (Veh) | End queue <br> (Veh) | Delay (s) | Unsignalised <br> level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 28 | 7 |  | 562 | 0.050 | 28 | 0.1 | 0.1 | 6.742 | A |
| C-AB | 45 | 11 |  | 782 | 0.057 | 45 | 0.1 | 0.1 | 4.905 | A |
| C-A | 248 | 62 |  |  |  | 248 |  |  |  |  |
| ABC | 169 | 42 | 179.80 | 1356 | 0.125 | 169 | 0.2 | 0.1 | 3.036 | A |

09:00-09:15

| Stream | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals (Veh) | Pedestrian <br> demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | RFC | Throughput <br> (Veh/hr) | Start queue <br> (Veh) | End queue <br> (Veh) | Delay (s) | Unsignalised <br> level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 23 | 6 |  | 573 | 0.041 | 23 | 0.1 | 0.0 | 6.550 | A |
| C-AB | 35 | 9 |  | 762 | 0.046 | 35 | 0.1 | 0.1 | 4.971 | A |
| C-A | 210 | 53 |  |  |  | 210 |  |  |  |  |
| ABC | 142 | 35 | 150.57 | 1374 | 0.103 | 142 | 0.1 | 0.1 | 2.921 | A |

THE FUTURE

## 2022 Base +Dev, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

## Junctions

| Junction | Name | Junction type | Arm A Direction | Arm B Direction | Arm C Direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | A475 Pontfaen Rd/ Site Access | T-Junction | Two-way | Two-way | Two-way |  | 3.22 | A |

## Junction Network

| Driving side | Lighting | Network delay (s) | Network LOS |
| :---: | :---: | :---: | :---: |
| Left | Normal/unknown | 3.22 | A |

## Traffic Demand

## Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| D2 | 2022 Base +Dev | PM | ONE HOUR | $16: 45$ | $18: 15$ | 15 | $\checkmark$ |


| Vehicle mix varies over turn | Vehicle mix varies over entry | Vehicle mix source | PCU Factor for a HV (PCU) |
| :---: | :---: | :---: | :---: |
| $\checkmark$ | $\checkmark$ | HV Percentages | 2.00 |

## Demand overview (Traffic)

| Arm | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (\%) |
| :--- | :---: | :---: | :---: | :---: | :---: |
| A- Pontfaen Rd (E) |  | ONE HOUR | $\checkmark$ | 264 | 100.000 |
| B - Site Access |  | ONE HOUR | $\checkmark$ | 81 | 100.000 |
| C - Pontfaen Rd (W) |  | ONE HOUR | $\checkmark$ | 235 | 100.000 |

## Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
| :--- | :---: | :---: |
| A - Pontfaen Rd (E) | [ONEHOUR] | 200.00 |
| B - Site Access |  |  |
| C - Pontfaen Rd (W) |  |  |

## Origin-Destination Data

Demand (Veh/hr)

|  | To |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| From |  | A - Pontfaen Rd (E) | B - Site Access | C - Pontfaen Rd (W) |
|  | A - Pontfaen Rd (E) | 0 | 24 | 240 |
|  | B - Site Access | 24 | 0 | 57 |
|  | C - Pontfaen Rd (W) | 181 | 54 | 0 |

## Vehicle Mix

Heavy Vehicle Percentages

|  | To |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| From |  | A - Pontfaen Rd (E) | B - Site Access | C - Pontfaen Rd (W) |
|  | A - Pontfaen Rd (E) | 0 | 0 | 12 |
|  | B - Site Access | 0 | 0 | 0 |
|  | C - Pontfaen Rd (W) | 16 | 0 | 0 |

## Results

Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS | Average Demand <br> (Veh/hr) | Total Junction <br> Arrivals (Veh) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 0.17 | 8.00 | 0.2 | A | 74 | 111 |
| C-AB | 0.12 | 5.70 | 0.2 | A | 65 | 98 |
| C-A |  |  |  |  | 150 | 225 |
| ABC | 0.21 | 3.36 | 0.3 | A | 242 | 363 |

## Main Results for each time segment

16:45-17:00

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Pedestrian demand (Ped/hr) | Capacity <br> (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 61 | 15 |  | 569 | 0.107 | 61 | 0.0 | 0.1 | 7.070 | A |
| C-AB | 51 | 13 |  | 697 | 0.073 | 50 | 0.0 | 0.1 | 5.566 | A |
| C-A | 126 | 32 |  |  |  | 126 |  |  |  |  |
| ABC | 199 | 50 | 150.57 | 1399 | 0.142 | 198 | 0.0 | 0.2 | 2.996 | A |

17:00-17:15

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 73 | 18 |  | 557 | 0.131 | 73 | 0.1 | 0.1 | 7.436 | A |
| C-AB | 63 | 16 |  | 704 | 0.090 | 63 | 0.1 | 0.1 | 5.605 | A |
| C-A | 148 | 37 |  |  |  | 148 |  |  |  |  |
| ABC | 237 | 59 | 179.80 | 1381 | 0.172 | 237 | 0.2 | 0.2 | 3.147 | A |

17:15-17:30

| Stream | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals (Veh) | Pedestrian <br> demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | RFC | Throughput <br> (Veh/hr) | Start queue <br> (Veh) | End queue <br> (Veh) | Delay (s) | Unsignalised <br> level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 89 | 22 |  | 539 | 0.165 | 89 | 0.1 | 0.2 | 7.991 | A |
| C-AB | 83 | 21 |  | 715 | 0.116 | 82 | 0.1 | 0.2 | 5.676 |  |
| C-A | 176 | 44 |  |  |  | 176 |  |  |  |  |
| ABC | 291 | 73 | 220.20 | 1361 | 0.214 | 290 | 0.2 | 0.3 | 3.364 | A |

17:30-17:45

| Stream | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals (Veh) | Pedestrian <br> demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | RFC | Throughput <br> (Veh/hr) | Start queue <br> (Veh) | End queue <br> (Veh) | Delay (s) | Unsignalised <br> level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 89 | 22 |  | 539 | 0.165 | 89 | 0.2 | 0.2 | 7.999 |  |
| C-AB | 83 | 21 |  | 715 | 0.116 | 83 | 0.2 | 0.2 | 5.699 | A |
| C-A | 176 | 44 |  |  |  | 176 |  |  |  |  |
| ABC | 291 | 73 | 220.20 | 1361 | 0.214 | 291 | 0.3 | 0.3 | 3.364 | A |

17:45-18:00

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 73 | 18 |  | 557 | 0.131 | 73 | 0.2 | 0.2 | 7.447 | A |
| C-AB | 63 | 16 |  | 704 | 0.090 | 64 | 0.2 | 0.1 | 5.653 | A |
| C-A | 148 | 37 |  |  |  | 148 |  |  |  |  |
| ABC | 237 | 59 | 179.80 | 1381 | 0.172 | 238 | 0.3 | 0.2 | 3.149 | A |

18:00-18:15

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 61 | 15 |  | 569 | 0.107 | 61 | 0.2 | 0.1 | 7.089 | A |
| C-AB | 51 | 13 |  | 696 | 0.073 | 51 | 0.1 | 0.1 | 5.598 | A |
| C-A | 126 | 32 |  |  |  | 126 |  |  |  |  |
| ABC | 199 | 50 | 150.57 | 1399 | 0.142 | 199 | 0.2 | 0.2 | 2.999 | A |

THE FUTURE

## 2022 Base +Dev, SAT

## Data Errors and Warnings

No errors or warnings

## Junction Network

## Junctions

| Junction | Name | Junction type | Arm A Direction | Arm B Direction | Arm C Direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | A475 Pontfaen Rd / Site Access | T-Junction | Two-way | Two-way | Two-way |  | 3.62 | A |

## Junction Network

| Driving side | Lighting | Network delay (s) | Network LOS |
| :---: | :---: | :---: | :---: |
| Left | Normal/unknown | 3.62 | A |

## Traffic Demand

## Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| D3 | 2022 Base +Dev | SAT | ONE HOUR | $10: 45$ | $12: 15$ | 15 | $\checkmark$ |


| Vehicle mix varies over turn | Vehicle mix varies over entry | Vehicle mix source | PCU Factor for a HV (PCU) |
| :---: | :---: | :---: | :---: |
| $\checkmark$ | $\checkmark$ | HV Percentages | 2.00 |

## Demand overview (Traffic)

| Arm | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (\%) |
| :--- | :---: | :---: | :---: | :---: | :---: |
| A- Pontfaen Rd (E) |  | ONE HOUR | $\checkmark$ | 263 | 100.000 |
| B - Site Access |  | ONE HOUR | $\checkmark$ | 115 | 100.000 |
| C - Pontfaen Rd (W) |  | ONE HOUR | $\checkmark$ | 311 | 100.000 |

## Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
| :--- | :---: | :---: |
| A - Pontfaen Rd (E) | [ONEHOUR] | 200.00 |
| B - Site Access |  |  |
| C - Pontfaen Rd (W) |  |  |

## Origin-Destination Data

Demand (Veh/hr)

|  | To |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| From |  | A - Pontfaen Rd (E) | B - Site Access | C - Pontfaen Rd (W) |
|  | A - Pontfaen Rd (E) | 0 | 37 | 226 |
|  | B - Site Access | 35 | 0 | 80 |
|  | C - Pontfaen Rd (W) | 225 | 86 | 0 |

## Vehicle Mix

Heavy Vehicle Percentages

|  | To |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| From |  | A - Pontfaen Rd (E) | B - Site Access | C - Pontfaen Rd (W) |
|  | A - Pontfaen Rd (E) | 0 | 0 | 7 |
|  | B - Site Access | 0 | 0 | 0 |
|  | C - Pontfaen Rd (W) | 10 | 0 | 0 |

## Results

Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS | Average Demand <br> (Veh/hr) | Total Junction <br> Arrivals (Veh) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 0.24 | 8.82 | 0.3 | A | 106 | 158 |
| C-AB | 0.19 | 5.90 | 0.3 | A | 111 | 167 |
| C-A |  |  |  |  | 174 | 261 |
| ABC | 0.20 | 3.17 | 0.3 | A | 241 | 362 |

## Main Results for each time segment

10:45-11:00

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 87 | 22 |  | 566 | 0.153 | 86 | 0.0 | 0.2 | 7.487 | A |
| C-AB | 85 | 21 |  | 722 | 0.117 | 84 | 0.0 | 0.2 | 5.635 | A |
| C-A | 150 | 37 |  |  |  | 150 |  |  |  |  |
| ABC | 198 | 50 | 150.57 | 1464 | 0.135 | 197 | 0.0 | 0.2 | 2.841 | A |

11:00-11:15

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 103 | 26 |  | 553 | 0.187 | 103 | 0.2 | 0.2 | 8.003 | A |
| C-AB | 107 | 27 |  | 735 | 0.145 | 107 | 0.2 | 0.2 | 5.724 | A |
| C-A | 173 | 43 |  |  |  | 173 |  |  |  |  |
| ABC | 236 | 59 | 179.80 | 1444 | 0.164 | 236 | 0.2 | 0.2 | 2.979 | A |

11:15-11:30

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 127 | 32 |  | 535 | 0.237 | 126 | 0.2 | 0.3 | 8.803 | A |
| C-AB | 141 | 35 |  | 753 | 0.188 | 141 | 0.2 | 0.3 | 5.876 | A |
| C-A | 201 | 50 |  |  |  | 201 |  |  |  |  |
| ABC | 290 | 72 | 220.20 | 1423 | 0.203 | 289 | 0.2 | 0.3 | 3.174 | A |

11:30-11:45

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 127 | 32 |  | 535 | 0.237 | 127 | 0.3 | 0.3 | 8.825 | A |
| C-AB | 142 | 35 |  | 753 | 0.188 | 142 | 0.3 | 0.3 | 5.898 | A |
| C-A | 201 | 50 |  |  |  | 201 |  |  |  |  |
| ABC | 290 | 72 | 220.20 | 1423 | 0.203 | 290 | 0.3 | 0.3 | 3.174 | A |

11:45-12:00

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 103 | 26 |  | 553 | 0.187 | 104 | 0.3 | 0.2 | 8.023 | A |
| C-AB | 107 | 27 |  | 735 | 0.146 | 107 | 0.3 | 0.2 | 5.768 | A |
| C-A | 173 | 43 |  |  |  | 173 |  |  |  |  |
| ABC | 236 | 59 | 179.80 | 1444 | 0.164 | 237 | 0.3 | 0.2 | 2.980 | A |

12:00-12:15

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 87 | 22 |  | 566 | 0.153 | 87 | 0.2 | 0.2 | 7.522 | A |
| C-AB | 85 | 21 |  | 722 | 0.117 | 85 | 0.2 | 0.2 | 5.671 | A |
| C-A | 149 | 37 |  |  |  | 149 |  |  |  |  |
| ABC | 198 | 50 | 150.57 | 1464 | 0.135 | 198 | 0.2 | 0.2 | 2.847 | A |

## 2027 Base +Dev, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

## Junctions

| Junction | Name | Junction type | Arm A Direction | Arm B Direction | Arm C Direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | A475 Pontfaen Rd/ Site Access | T-Junction | Two-way | Two-way | Two-way |  | 1.91 | A |

## Junction Network

| Driving side | Lighting | Network delay (s) | Network LOS |
| :---: | :---: | :---: | :---: |
| Left | Normal/unknown | 1.91 | A |

## Traffic Demand

## Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| D4 | 2027 Base +Dev | AM | ONE HOUR | $07: 45$ | $09: 15$ | 15 | $\checkmark$ |


| Vehicle mix varies over turn | Vehicle mix varies over entry | Vehicle mix source | PCU Factor for a HV (PCU) |
| :---: | :---: | :---: | :---: |
| $\checkmark$ | $\checkmark$ | HV Percentages | 2.00 |

## Demand overview (Traffic)

| Arm | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (\%) |
| :--- | :---: | :---: | :---: | :---: | :---: |
| A- Pontfaen Rd (E) |  | ONE HOUR | $\checkmark$ | 194 | 100.000 |
| B - Site Access |  | ONE HOUR | $\checkmark$ | 31 | 100.000 |
| C - Pontfaen Rd (W) |  | ONE HOUR | $\checkmark$ | 337 | 100.000 |

## Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
| :--- | :---: | :---: |
| A - Pontfaen Rd (E) | [ONEHOUR] | 200.00 |
| B - Site Access |  |  |
| C - Pontfaen Rd (W) |  |  |

## Origin-Destination Data

Demand (Veh/hr)

|  | To |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| From |  | A - Pontfaen Rd (E) | B - Site Access | C - Pontfaen Rd (W) |
|  | A - Pontfaen Rd (E) | 0 | 14 | 180 |
|  | B - Site Access | 10 | 0 | 21 |
|  | C - Pontfaen Rd (W) | 304 | 33 | 0 |

## Vehicle Mix

Heavy Vehicle Percentages

|  | To |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| From |  | A - Pontfaen Rd (E) | B - Site Access | C - Pontfaen Rd (W) |
|  | A - Pontfaen Rd (E) | 0 | 0 | 14 |
|  | B - Site Access | 0 | 0 | 0 |
|  | C - Pontfaen Rd (W) | 12 | 0 | 0 |

## Results

Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS | Average Demand <br> (Veh/hr) | Total Junction <br> Arrivals (Veh) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 0.06 | 7.06 | 0.1 | A | 28 | 43 |
| C-AB | 0.08 | 4.94 | 0.1 | A | 48 | 71 |
| C-A |  |  |  |  | 262 | 392 |
| ABC | 0.16 | 3.21 | 0.2 | A | 178 | 267 |

## Main Results for each time segment

07:45-08:00

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 23 | 6 |  | 571 | 0.041 | 23 | 0.0 | 0.0 | 6.566 | A |
| C-AB | 35 | 9 |  | 766 | 0.046 | 35 | 0.0 | 0.1 | 4.922 | A |
| C-A | 218 | 55 |  |  |  | 218 |  |  |  |  |
| ABC | 146 | 37 | 150.57 | 1373 | 0.106 | 146 | 0.0 | 0.1 | 2.933 | A |

08:00-08:15

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 28 | 7 |  | 560 | 0.050 | 28 | 0.0 | 0.1 | 6.765 | A |
| C-AB | 46 | 11 |  | 787 | 0.058 | 45 | 0.1 | 0.1 | 4.841 | A |
| C-A | 257 | 64 |  |  |  | 257 |  |  |  |  |
| ABC | 174 | 44 | 179.80 | 1355 | 0.129 | 174 | 0.1 | 0.1 | 3.048 | A |

08:15-08:30

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 34 | 9 |  | 544 | 0.063 | 34 | 0.1 | 0.1 | 7.057 | A |
| C-AB | 62 | 15 |  | 817 | 0.075 | 62 | 0.1 | 0.1 | 4.750 | A |
| C-A | 309 | 77 |  |  |  | 309 |  |  |  |  |
| ABC | 214 | 53 | 220.20 | 1335 | 0.160 | 213 | 0.1 | 0.2 | 3.208 | A |

08:30-08:45

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 34 | 9 |  | 544 | 0.063 | 34 | 0.1 | 0.1 | 7.058 | A |
| C-AB | 62 | 15 |  | 817 | 0.076 | 62 | 0.1 | 0.1 | 4.766 | A |
| C-A | 309 | 77 |  |  |  | 309 |  |  |  |  |
| ABC | 214 | 53 | 220.20 | 1335 | 0.160 | 214 | 0.2 | 0.2 | 3.208 | A |

08:45-09:00

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 28 | 7 |  | 560 | 0.050 | 28 | 0.1 | 0.1 | 6.770 | A |
| C-AB | 46 | 11 |  | 787 | 0.058 | 46 | 0.1 | 0.1 | 4.878 | A |
| C-A | 257 | 64 |  |  |  | 257 |  |  |  |  |
| ABC | 174 | 44 | 179.80 | 1355 | 0.129 | 175 | 0.2 | 0.1 | 3.051 | A |

09:00-09:15

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 23 | 6 |  | 571 | 0.041 | 23 | 0.1 | 0.0 | 6.571 | A |
| C-AB | 36 | 9 |  | 766 | 0.046 | 36 | 0.1 | 0.1 | 4.945 | A |
| C-A | 218 | 55 |  |  |  | 218 |  |  |  |  |
| ABC | 146 | 37 | 150.57 | 1373 | 0.106 | 146 | 0.1 | 0.1 | 2.933 | A |

## 2027 Base +Dev, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

## Junctions

| Junction | Name | Junction type | Arm A Direction | Arm B Direction | Arm C Direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | A475 Pontfaen Rd/ Site Access | T-Junction | Two-way | Two-way | Two-way |  | 3.22 | A |

## Junction Network

| Driving side | Lighting | Network delay (s) | Network LOS |
| :---: | :---: | :---: | :---: |
| Left | Normal/unknown | 3.22 | A |

## Traffic Demand

## Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| D5 | 2027 Base +Dev | PM | ONE HOUR | $16: 45$ | $18: 15$ | 15 | $\checkmark$ |


| Vehicle mix varies over turn | Vehicle mix varies over entry | Vehicle mix source | PCU Factor for a HV (PCU) |
| :---: | :---: | :---: | :---: |
| $\checkmark$ | $\checkmark$ | HV Percentages | 2.00 |

## Demand overview (Traffic)

| Arm | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (\%) |
| :--- | :---: | :---: | :---: | :---: | :---: |
| A- Pontfaen Rd (E) |  | ONE HOUR | $\checkmark$ | 273 | 100.000 |
| B - Site Access |  | ONE HOUR | $\checkmark$ | 81 | 100.000 |
| C - Pontfaen Rd (W) |  | ONE HOUR | $\checkmark$ | 241 | 100.000 |

## Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
| :--- | :---: | :---: |
| A - Pontfaen Rd (E) | [ONEHOUR] | 200.00 |
| B - Site Access |  |  |
| C - Pontfaen Rd (W) |  |  |

## Origin-Destination Data

Demand (Veh/hr)

|  | To |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| From |  | A - Pontfaen Rd (E) | B - Site Access | C - Pontfaen Rd (W) |
|  | A - Pontfaen Rd (E) | 0 | 24 | 249 |
|  | B - Site Access | 24 | 0 | 57 |
|  | C - Pontfaen Rd (W) | 187 | 54 | 0 |

## Vehicle Mix

Heavy Vehicle Percentages

|  | To |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| From |  | A - Pontfaen Rd (E) | B - Site Access | C - Pontfaen Rd (W) |
|  | A - Pontfaen Rd (E) | 0 | 0 | 12 |
|  | B - Site Access | 0 | 0 | 0 |
|  | C - Pontfaen Rd (W) | 16 | 0 | 0 |

## Results

Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS | Average Demand <br> (Veh/hr) | Total Junction <br> Arrivals (Veh) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 0.17 | 8.05 | 0.2 | A | 74 | 111 |
| C-AB | 0.12 | 5.69 | 0.2 | A | 66 | 99 |
| C-A |  |  |  |  | 155 | 232 |
| ABC | 0.22 | 3.40 | 0.3 | A | 251 | 376 |

## Main Results for each time segment

16:45-17:00

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Pedestrian demand (Ped/hr) | Capacity <br> (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 61 | 15 |  | 567 | 0.108 | 61 | 0.0 | 0.1 | 7.099 | A |
| C-AB | 51 | 13 |  | 698 | 0.073 | 50 | 0.0 | 0.1 | 5.559 | A |
| C-A | 131 | 33 |  |  |  | 131 |  |  |  |  |
| ABC | 206 | 51 | 150.57 | 1399 | 0.147 | 205 | 0.0 | 0.2 | 3.014 | A |

17:00-17:15

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 73 | 18 |  | 554 | 0.131 | 73 | 0.1 | 0.1 | 7.475 | A |
| C-AB | 64 | 16 |  | 705 | 0.091 | 64 | 0.1 | 0.1 | 5.595 | A |
| C-A | 153 | 38 |  |  |  | 153 |  |  |  |  |
| ABC | 245 | 61 | 179.80 | 1380 | 0.178 | 245 | 0.2 | 0.2 | 3.171 | A |

17:15-17:30

| Stream | Total <br> Demand <br> (Veh/hr) | Junction <br> Arrivals (Veh) | Pedestrian <br> demand <br> (Ped/hr) | Capacity <br> (Veh/hr) | RFC | Throughput <br> (Veh/hr) | Start queue <br> (Veh) | End queue <br> (Veh) | Delay (s) | Unsignalised <br> level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 89 | 22 |  | 536 | 0.166 | 89 | 0.1 | 0.2 | 8.046 | A |
| C-AB | 84 | 21 |  | 717 | 0.117 | 83 | 0.1 | 0.2 | 5.665 |  |
| C-A | 182 | 45 |  |  |  | 182 |  |  |  |  |
| ABC | 301 | 75 | 220.20 | 1360 | 0.221 | 300 | 0.2 | 0.3 | 3.396 | A |

17:30-17:45

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 89 | 22 |  | 536 | 0.166 | 89 | 0.2 | 0.2 | 8.054 | A |
| C-AB | 84 | 21 |  | 717 | 0.117 | 84 | 0.2 | 0.2 | 5.691 | A |
| C-A | 182 | 45 |  |  |  | 182 |  |  |  |  |
| ABC | 301 | 75 | 220.20 | 1360 | 0.221 | 301 | 0.3 | 0.3 | 3.396 | A |

17:45-18:00

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 73 | 18 |  | 554 | 0.131 | 73 | 0.2 | 0.2 | 7.486 | A |
| C-AB | 64 | 16 |  | 705 | 0.091 | 64 | 0.2 | 0.1 | 5.647 | A |
| C-A | 153 | 38 |  |  |  | 153 |  |  |  |  |
| ABC | 245 | 61 | 179.80 | 1380 | 0.178 | 246 | 0.3 | 0.2 | 3.175 | A |

18:00-18:15

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 61 | 15 |  | 567 | 0.108 | 61 | 0.2 | 0.1 | 7.121 | A |
| C-AB | 51 | 13 |  | 698 | 0.073 | 51 | 0.1 | 0.1 | 5.590 | A |
| C-A | 130 | 33 |  |  |  | 130 |  |  |  |  |
| ABC | 206 | 51 | 150.57 | 1399 | 0.147 | 206 | 0.2 | 0.2 | 3.020 | A |

THE FUTURE
OF TRANSPORT

## 2027 Base + Dev, SAT

## Data Errors and Warnings

No errors or warnings

## Junction Network

## Junctions

| Junction | Name | Junction type | Arm A Direction | Arm B Direction | Arm C Direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | A475 Pontfaen Rd / Site Access | T-Junction | Two-way | Two-way | Two-way |  | 3.60 | A |

## Junction Network

| Driving side | Lighting | Network delay (s) | Network LOS |
| :---: | :---: | :---: | :---: |
| Left | Normal/unknown | 3.60 | A |

## Traffic Demand

## Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| D6 | 2027 Base +Dev | SAT | ONE HOUR | $10: 45$ | $12: 15$ | 15 | $\checkmark$ |


| Vehicle mix varies over turn | Vehicle mix varies over entry | Vehicle mix source | PCU Factor for a HV (PCU) |
| :---: | :---: | :---: | :---: |
| $\checkmark$ | $\checkmark$ | HV Percentages | 2.00 |

## Demand overview (Traffic)

| Arm | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (\%) |
| :--- | :---: | :---: | :---: | :---: | :---: |
| A- Pontfaen Rd (E) |  | ONE HOUR | $\checkmark$ | 272 | 100.000 |
| B - Site Access |  | ONE HOUR | $\checkmark$ | 115 | 100.000 |
| C - Pontfaen Rd (W) |  | ONE HOUR | $\checkmark$ | 320 | 100.000 |

## Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
| :--- | :---: | :---: |
| A - Pontfaen Rd (E) | [ONEHOUR] | 200.00 |
| B - Site Access |  |  |
| C - Pontfaen Rd (W) |  |  |

## Origin-Destination Data

Demand (Veh/hr)

|  | To |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| From |  | A - Pontfaen Rd (E) | B - Site Access | C - Pontfaen Rd (W) |
|  | A - Pontfaen Rd (E) | 0 | 37 | 235 |
|  | B - Site Access | 35 | 0 | 80 |
|  | C - Pontfaen Rd (W) | 234 | 86 | 0 |

## Vehicle Mix

Heavy Vehicle Percentages

|  | To |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| From |  | A - Pontfaen Rd (E) | B - Site Access | C - Pontfaen Rd (W) |
|  | A - Pontfaen Rd (E) | 0 | 0 | 7 |
|  | B - Site Access | 0 | 0 | 0 |
|  | C - Pontfaen Rd (W) | 10 | 0 | 0 |

## Results

Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS | Average Demand <br> (Veh/hr) | Total Junction <br> Arrivals (Veh) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 0.24 | 8.90 | 0.3 | A | 106 | 158 |
| C-AB | 0.19 | 5.88 | 0.3 | A | 113 | 169 |
| C-A |  |  |  |  | 181 | 271 |
| ABC | 0.21 | 3.20 | 0.3 | A | 250 | 374 |

## Main Results for each time segment

10:45-11:00

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 87 | 22 |  | 564 | 0.154 | 86 | 0.0 | 0.2 | 7.521 | A |
| C-AB | 86 | 21 |  | 725 | 0.118 | 85 | 0.0 | 0.2 | 5.619 | A |
| C-A | 155 | 39 |  |  |  | 155 |  |  |  |  |
| ABC | 205 | 51 | 150.57 | 1463 | 0.140 | 204 | 0.0 | 0.2 | 2.858 | A |

11:00-11:15

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 103 | 26 |  | 550 | 0.188 | 103 | 0.2 | 0.2 | 8.049 | A |
| C-AB | 108 | 27 |  | 738 | 0.147 | 108 | 0.2 | 0.2 | 5.706 | A |
| C-A | 179 | 45 |  |  |  | 179 |  |  |  |  |
| ABC | 245 | 61 | 179.80 | 1444 | 0.169 | 244 | 0.2 | 0.2 | 3.000 | A |

11:15-11:30

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 127 | 32 |  | 531 | 0.238 | 126 | 0.2 | 0.3 | 8.879 | A |
| C-AB | 144 | 36 |  | 757 | 0.190 | 144 | 0.2 | 0.3 | 5.855 | A |
| C-A | 208 | 52 |  |  |  | 208 |  |  |  |  |
| ABC | 299 | 75 | 220.20 | 1423 | 0.210 | 299 | 0.2 | 0.3 | 3.203 | A |

11:30-11:45

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 127 | 32 |  | 531 | 0.238 | 127 | 0.3 | 0.3 | 8.895 | A |
| C-AB | 144 | 36 |  | 757 | 0.190 | 144 | 0.3 | 0.3 | 5.882 | A |
| C-A | 208 | 52 |  |  |  | 208 |  |  |  |  |
| ABC | 299 | 75 | 220.20 | 1423 | 0.210 | 299 | 0.3 | 0.3 | 3.203 | A |

11:45-12:00

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 103 | 26 |  | 550 | 0.188 | 104 | 0.3 | 0.2 | 8.070 | A |
| C-AB | 109 | 27 |  | 738 | 0.147 | 109 | 0.3 | 0.2 | 5.751 | A |
| C-A | 179 | 45 |  |  |  | 179 |  |  |  |  |
| ABC | 245 | 61 | 179.80 | 1444 | 0.169 | 245 | 0.3 | 0.2 | 3.004 | A |

12:00-12:15

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B-AC | 87 | 22 |  | 564 | 0.154 | 87 | 0.2 | 0.2 | 7.556 | A |
| C-AB | 86 | 21 |  | 725 | 0.118 | 86 | 0.2 | 0.2 | 5.653 | A |
| C-A | 155 | 39 |  |  |  | 155 |  |  |  |  |
| ABC | 205 | 51 | 150.57 | 1463 | 0.140 | 205 | 0.2 | 0.2 | 2.861 | A |


[^0]:    © Googlemaps /Crashmap

[^1]:    Rydym yn croesawu gohebiaeth yn Gymraeg a Saesneg. Cewch ateb Cymraeg i bob gohebiaeth Gymraeg ac ateb Saesneg ibob gohebiaeth Saesneg. Ni fydd gohebu yn Gymraeg yn arwain at oedi.
    We welcome correspondence in Welsh and English. Correspondence received in Welsh will be answered in Welsh and correspondence in English will be answered in English. Corresponding in Welsh will not involve any delay.

