

# **Transport Assessment**

## **Proposed Discount Foodstore Development Wrexham Police Station, Wrexham**

**Lidl, UK GmbH**

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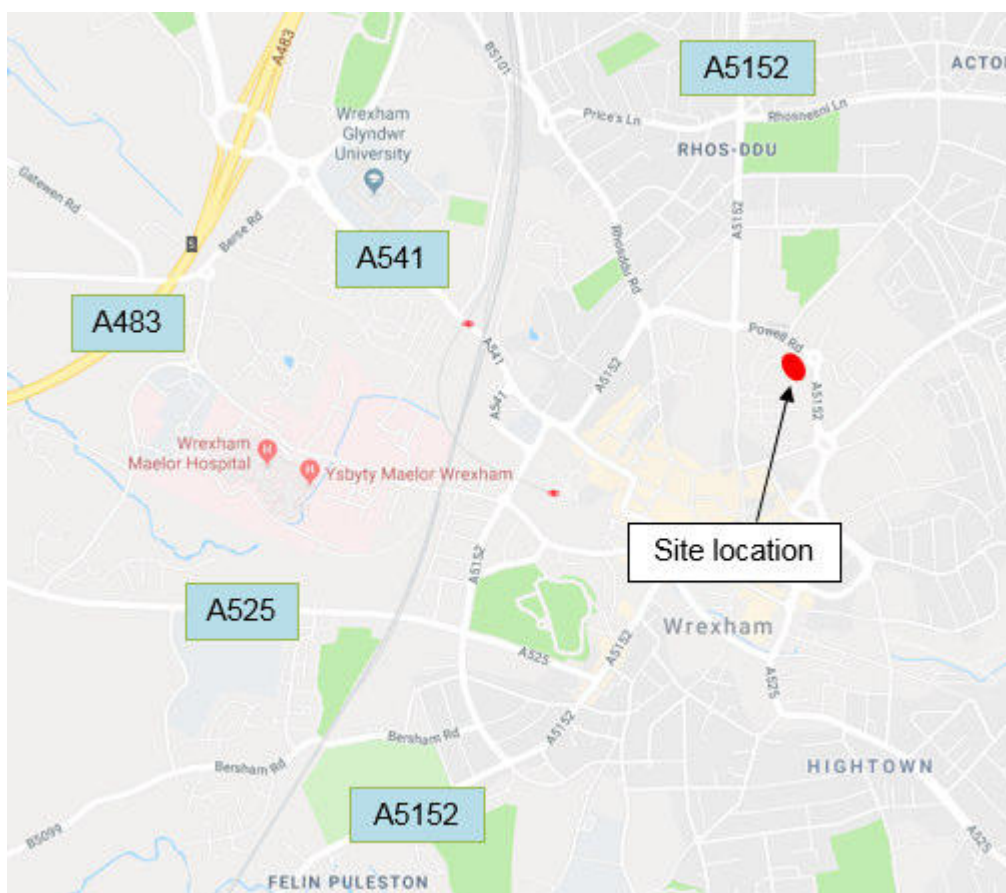
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## 1.0 INTRODUCTION

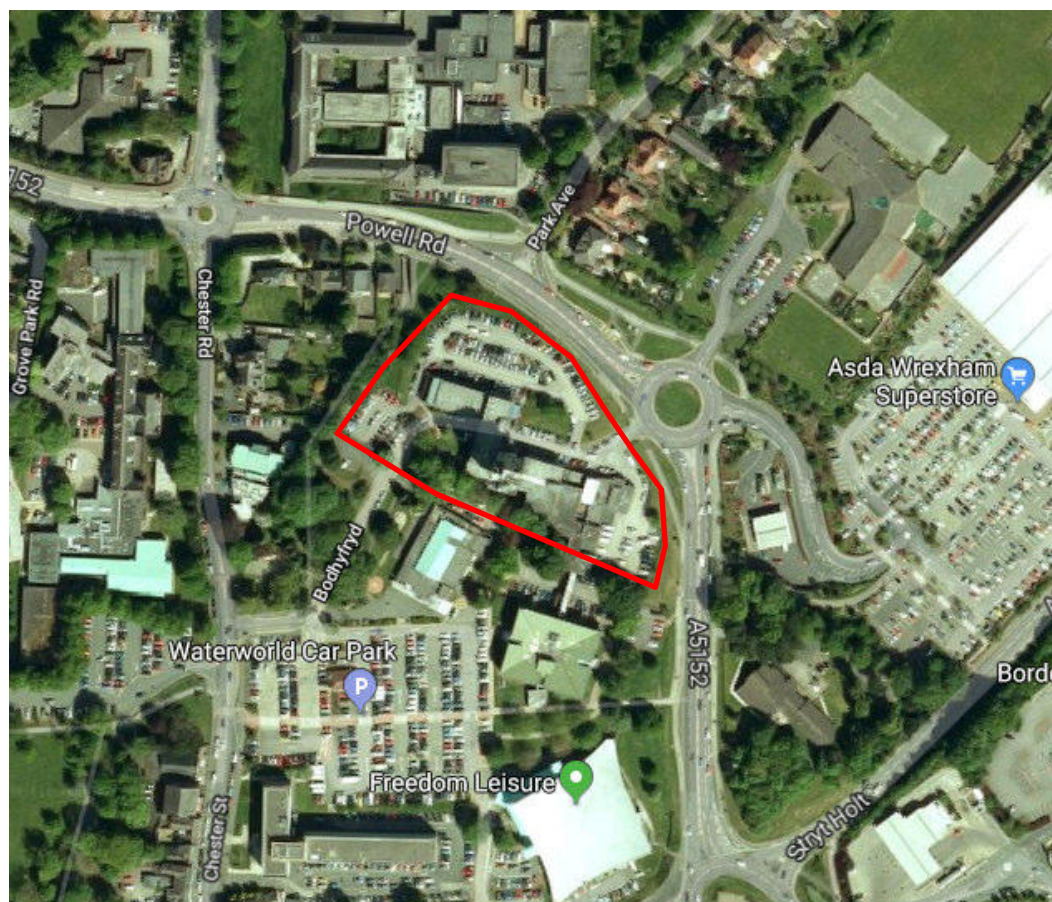
- 1.1 This Transport Assessment (TA) has been prepared on behalf of Lidl UK GmbH to inform the local Highway Authority, Wrexham County Borough Council, of the transport and highways implications of the proposed redevelopment of the Wrexham Police Station, Wrexham with a Lidl foodstore with parking for circa 120 cars and a drive-through with 30 parking spaces.
- 1.2 The development will use the existing access from the Powell Rd / A5152 roundabout junction, suitably improved to cater for Lidl's HGV movements and for pedestrians.
- 1.3 This TA provides the supporting information necessary to enable the impact of the proposal to be properly determined. The report assesses the capacity of the site access onto Powell Rd / A5152 roundabout junction.
- 1.4 The site location is shown in both wider context and as part of the local highway network in **Figure 1** and **Figure 2**.

*Figure 1: Site in Wider Context*



Source: Google Maps

*Figure 2: Site in relation to Local Highway Network*



Source: Google Maps

## **Scope and Structure of This Report**

- 1.5 This report seeks to demonstrate that the proposed development of this site can be accommodated without detriment to the operational capacity or safety of the local highway network, and that it can be readily accessed on foot, by bicycle and by local public transport services.
- 1.6 The report is structured as follows:
- i) Chapter 2 – describes the site location, existing uses, local highway network, existing traffic conditions and road safety record;
  - ii) Chapter 3 – describes the proposed development including the proposed access, car parking and servicing arrangements;
  - iii) Chapter 4 – summarises the national and local transport policies, and describes how the proposed development accords with these;

- iv) Chapter 5 – considers the location of the site with regard to the existing local sustainable transport infrastructure;
- v) Chapter 6 – estimates the potential number of trips generated by the proposed uses of the site and the distribution and assignment of the vehicular trips on the local highway network;
- vi) Chapter 7 – presents an assessment of the proposed development's impact upon the operational performance of the local highway network;
- vii) Chapter 8 – provides the summary and conclusions to this TA derived from the analysis presented in the above chapters.

## 2.0 EXISTING CONDITIONS

### *Existing Site*

- 2.1 The site is currently occupied by Wrexham Police Station and associated car parking. The existing access from the police station is approximately 12m wide at the bellmouth.

### *Local Highway Network*

- 2.2 The existing access is located off the five-arm roundabout junction of Powell Road / Alexandra C.P. School / Asda / A5152 / Police Station (Lidl). The junction at the west of our proposed access is a four-arm roundabout while the junction at the south is a five-arm roundabout giving access to Border Retail Park and Tesco Extra.
- 2.3 The speed limit on Powell Road / A5152 is 30mph. The carriageway is approximately 10m wide including hatching.

### *Traffic Surveys*

- 2.4 In order to assess the likely impact of the proposed Lidl Store, full turning counts were carried out at the roundabout junction between Powell Road / Alexandra C.P. School / Asda / A5152 / Wrexham Police Station (Lidl) on Tuesday 20<sup>th</sup> March between the hours of 15:30 and 18:30, and on Saturday 24<sup>th</sup> March between the hours of 11:00-14:00. The traffic survey data is contained in **Appendix 1**.
- 2.5 Pedestrian crossing counts were also carried out on the same days and times to ascertain how many pedestrians are crossing the access to Wrexham Police Station (Lidl).
- 2.6 The peak hour trips at the roundabout junction between Powell Road / Alexandra C.P. School / Asda / A5152 / Wrexham Police Station (Lidl) are summarised in **Table 1** below for the hours of 17:00-18:00 on a weekday and 11:00-12:00 on a Saturday.

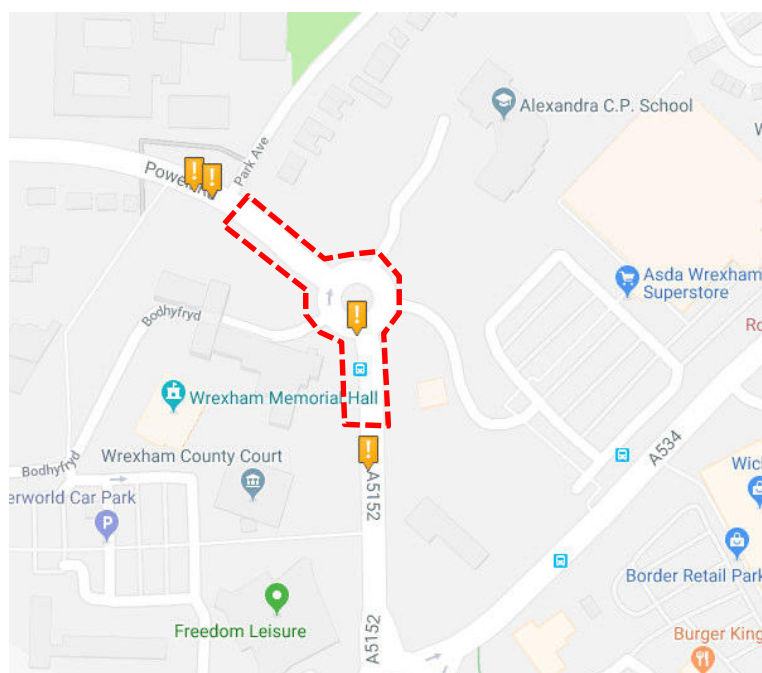
*Table 1: Existing Peak Hour Trip Generation (PCUs)*

| Flow from arm                 | Weekday PM (17:00-18:00) | Saturday (11:00-12:00) |
|-------------------------------|--------------------------|------------------------|
| Wrexham Police Station (Lidl) | 29                       | 5                      |
| Powell Road                   | 804                      | 882                    |
| Alexandra C.P. School         | 17                       | 0                      |
| Asda                          | 342                      | 436                    |
| A5152                         | 740                      | 750                    |
| <b>TOTAL</b>                  | <b>1932</b>              | <b>2073</b>            |

### *Accident Record*

- 2.7 The DfT document “Guidance on Transport Assessment” states that, “*Critical locations on the road network with poor accident records should be identified. This is to determine if the proposed development will exacerbate existing problems or, if proposed, whether highway mitigation works or traffic management measures will help to alleviate the problems*”.
- 2.8 Accident data has been obtained from the Department for Transport (DfT) Crashmap website for the last available five years from December 2013 to November 2017. The data has revealed only one accident close to the site access as per **Figure 3** below.

*Figure 3: Accident Data in Study Area*



Source: Crashmap

- 2.9 The accident was a rear-shunt between two vehicles waiting at the A5152 arm of the roundabout. It happened in February 2015 and was categorised as slight.
- 2.10 Having regard to the lack of specific accident cluster spots and the severity of the existing accident, the above results suggest that there is no inherent road safety issue present on the local adopted highway network adjacent to the application site which the proposed development would exacerbate.

### 3.0 PROPOSED DEVELOPMENT

#### General

- 3.1 The proposal includes the redevelopment of the Wrexham Police Station to form an A1 foodstore with a Gross External Area (GEA) of 2206m<sup>2</sup> and a Sales Area of 1325m<sup>2</sup> as well as a drive-through with a Gross Floor Area (GFA) of 205m<sup>2</sup>. The proposed site layout is included in **Appendix 2**.
- 3.2 The proposal includes widening the existing access from the roundabout to allow HGV movements. The proposed access and offsite improvements are shown in drawing SCP/18111/SK01 in **Appendix 2**.

#### Car Parking

##### Proposed Foodstore

- 3.3 Wrexham County Borough Council (WCBC)'s car parking standards for A1 Food Retail in excess of 300m<sup>2</sup> of floor space allow for a maximum of one car space per 14m<sup>2</sup> of Gross Floor Area (GFA) and one cycle space per 140m<sup>2</sup> of GFA.
- 3.4 A total of 120 car parking spaces will be provided on the site as part of the proposed development layout. Of the 120 spaces provided for the proposed discount-food store, 8 will be designated to parent and child standard and 7 will be DDA compliant. These spaces will be clearly marked and positioned close to the store entrance and trolley bay for customers' convenience, as illustrated in **Appendix 2**.
- 3.5 As per WCBC's parking standards, a minimum of 10% of all car spaces should be provided to mobility standard "to meet the needs of people with mobility difficulties and those with young children". Of those, 60% should be for the exclusive use of disabled persons. Lidl propose 15 spaces for disabled users and for parents with children which equates to 12.5% of the total supply. Although only 47% are marked out as disabled, Lidl do not prevent disabled users from making use of the P&C bays if needed. Lidl's proposals are therefore compliant with this policy.
- 3.6 In accordance with Lidl's standard specification for new stores, all car park aisles are a minimum of 6.5m wide, which is within the circulation aisle width advocated by WCBC (i.e. 5m two-way and 3m one-way). Car parking spaces have been designed to Lidl's standards which are 2.7m wide by 5.2m in length and are over WCBC standards of 2.4m wide and 4.8m long.

- 3.7 There will also be 4 Sheffield cycle parking stands (i.e. 8 cycle parking spaces) at the front of the store, near the docking ramp, to encourage cycle trips to the site, with secure staff spaces available within the store.

#### Proposed Drive-through

- 3.8 Wrexham County Borough Council (WCBC)'s car parking standards for A3 Pubs, restaurants, cafes and hot food take-aways allow for a maximum of one car space per 4m<sup>2</sup> of public floor space and one cycle space per 40m<sup>2</sup> of public floor space.
- 3.9 A total of 30 parking spaces will be provided on site as part of the drive-through development. Of those 30 car parking spaces, 2 will be DDA compliant. While this is not strictly in accordance with WCBC's standards, the drive-thru is not a stand-alone unit and customers will be able to make use of Lidl's car park as well, including the disabled bays.

#### **Servicing**

- 3.10 Deliveries to the Lidl food store will be made by articulated HGV via Powell Road / A5152. The servicing of the store would take place from within the car park, with access shared with the customer access.
- 3.11 A swept path analysis has been undertaken of the site access and the loading bay area for a 16.5m articulated lorry (i.e. largest expected delivery vehicle). This is illustrated in drawings SCP/18111/ATRSK01 AND ATRSK02 included at **Appendix 3**. They demonstrate that the site and the loading bay can be safely accessed by such vehicles. It is anticipated that there will be one to two dedicated deliveries per average day, increasing to three during seasonal peak periods, such as Easter and Christmas.
- 3.12 Recycling and waste is taken away by the delivery vehicles, reducing the number of vehicles visiting the store per day.
- 3.13 Drawing ATRSK03, also at **Appendix 3** shows an articulated HGV accessing the drive-thru unit for servicing. Deliveries to this unit are not expected to take place during opening hours. However, the drawing shows that the swept path of an artic can safely enter and exit the drive-thru while the car park is full.

## **4.0 TRANSPORT POLICY**

### **General**

- 4.1 Technical Advice Note 18 (TAN 18) sets out the need for all TA supporting documents in Wales to include a Transport Implementation Strategy (TIS), which should include the following information in respect of each particular development proposal:
- i) Details of how the development and the TIS relate to transport planning policies and strategy. TIS's are intended to incorporate all the elements of a Travel Plan (TP) and to ensure that these are integrated with design elements of the new development;
  - ii) A set of objectives and targets relating to managing travel demand for the development;
  - iii) A framework for monitoring the objectives and targets, including the future modal split of transport to the development; and
  - iv) Details of measures proposed to improve access by public transport, walking and cycling to reduce the number and impacts of motorised journeys associated with the development.
- 4.2 This TIS section is therefore prepared having regard to the advice from TAN 18, as outlined above. It is considered that this TIS can be taken forward and used as a framework for a future detailed Travel Plan that can be secured as part of a planning condition, if considered necessary.

### **Policy Context – Planning Policy Wales (PPW)**

- 4.3 In terms of the national transport policy that is relevant to the TIS, the latest 9<sup>th</sup> edition of PPW was published in November 2016 by the Welsh Government and sets out a framework for the Welsh planning authorities to prepare their development plans. Chapter 8 of PPW sets out the approach to Transport.
- 4.4 Paragraph 8.1.1 of PPW states that *“The Welsh Government aims to extend choice in transport and secure accessibility in a way which supports sustainable development and helps to tackle the causes of climate change by: encouraging a more effective and efficient transport system, with greater use of the more sustainable and healthy forms of travel, and minimising the need to travel. This will be achieved through integration:*
- *within and between different types of transport;*
  - *between transport measures and land use planning;*

- *between transport measures and policies to protect and improve the environment; and*
- *between transport measures and policies for education, health, social inclusion and wealth creation.”*

4.5 Paragraph 8.1.5 of PPW states that *“Land use planning can help to achieve the Welsh Government’s objectives for transport through:*

- *reducing the need to travel, especially by private car, by locating development where there is good access by walking, cycling and public transport;*
- *locating development near other related uses to encourage multi-purpose trips and reduce the length of journeys;*
- *improving accessibility by walking, cycling and public transport;*
- *ensuring that transport is accessible to all, taking into account the needs of disabled and other less mobile people;*
- *promoting walking and cycling;*
- *supporting the provision of high quality public transport;*
- *supporting traffic management measures;*
- *promoting sustainable transport options for freight and commerce;*
- *supporting sustainable travel options in rural areas;*
- *supporting necessary infrastructure improvements; and*
- *ensuring that, as far as possible, transport infrastructure does not contribute to land take, urban sprawl or neighbourhood severance.*

4.6 With reference to the Active Travel (Wales) Act 2013, Paragraph 8.2.2 of PPW states that *“Walking should be promoted for shorter trips. The impact of policies and development on pedestrians should be considered. Planning authorities should, taking into account the requirements of the Active Travel (Wales) Act 2013, promote specific measures to assist pedestrians including the provision of safe, convenient and well-signed routes.”*

4.7 It goes on to say in Paragraph 8.2.3 that *“Cycling should also be encouraged for short trips and as a substitute for shorter car journeys or, as part of a longer journey when combined with public transport.”*

4.8 In reference to supporting documentation with planning applications, paragraph 8.7.2 of PPW states that *“Transport Assessments are an important mechanism for setting out the scale of anticipated impacts of a proposed development, or redevelopment, is likely to have. They assist in helping to anticipate the impacts of development so that they can be understood and catered for.”*

## **Local Transport Policy – Wrexham Local Development Plan (LDP2) 2013-2028**

- 4.9 Wrexham County Borough Council is currently preparing the Local Development Plan (LDP) which will replace the Unitary Development Plan (UDP) 1996-2011 adopted in February 2005.
- 4.10 The UDP highlights areas earmarked for development. The proposed site is not part of the adopted UDP.

## **Transport Implementation Strategy (TIS)**

### Objectives and Targets

- 4.11 The objectives of a TIS should benefit both the occupiers of a development and the wider community. The objectives will be set out in the following sections and form the basis for a Travel Plan (TP) for the development. Site specific objectives that are relevant to the proposed development are as follows:
- Reduce vehicle use in and around the site;
  - Improve the image of the local area;
  - Reduce the transport impact of the development upon the environment;
  - Promote more sustainable ways of travelling; and
  - Support government policy to manage travel demand more effectively.
- 4.12 In order to achieve the objective of reducing car travel, realistic short term annual targets will be set.
- 4.13 The proposed development is located in the Wrexham Ward 009. The 2011 UK Census shows that the preferred travel to work method is by car, with 41% of 16-74 usual residents in employment using their car to commute to work in the ward, 43% in Wrexham and 41% in Wales.

### Achieving the TIS Objectives and the Monitoring Process

- 4.14 The objectives and monitoring of the TIS will substantially be achieved through the appointment of suitable Travel Plan Co-ordinator/s (TPC/s). The TPC role will be undertaken by the foodstore and drive through managers. The store manager (TPC) contact names will be provided to the local authority as soon as the two posts have been filled.
- 4.15 Once appointed, the TPCs will act as the main contact for the TIS and will be responsible for implementing the TIS measures, maintaining a database and monitoring the effects of

implementation. A full set of duties and responsibilities of the TPCs is set out in the sections below.

- 4.16 The TPCs will inform the Local Planning Authority (LPA) and the appropriate local public transport operators of their contact details.
- 4.17 The TPCs will undertake an initial staff travel survey, within three months of occupation of the site, to enable a staff travel database to be set up. The TPCs will prepare and distribute a questionnaire to each staff member, to collect the following details:
- Postcode area of place of residence;
  - Normal working hours;
  - Mode of travel to work;
  - Car ownership / usage;
  - Reasons for not using public transport and other modes;
  - The anticipated take-up of a car sharing scheme, the use of public transport or other non-car modes of travel to work; and
  - Information relating to potential areas for sustainable travel improvement, upon which the TPC/s could act and draw up measures to improve the TIS.
- 4.18 On receipt of the completed questionnaires the TPCs will set up a travel database within three months of completion of the travel survey.
- 4.19 The TPCs will agree the annual targets with the LPA within 1 month of completion of the travel survey analysis. The initial travel survey results for the proportion of staff members travelling by single occupancy vehicles should be recorded along with the agreed short term annual targets.
- 4.20 The TPCs will ensure that any changes to the TIS or any relevant information is passed on to staff members on a biannual / annual basis via the notice board.
- 4.21 The TPCs will ensure that staff members are provided with information to allow ease of use of the local public transport by providing up-to-date public transport route maps and timetable information in 'welcome packs' at the start of employment and updating via notice board as necessary. Contact details for local taxi firms will also be provided by the TPCs.
- 4.22 The TPCs will liaise regularly with local public transport operators to ensure that information remains valid. The TPC/s will provide details of the websites and telephone advice services, such as <http://www.traveline.info/> to enable staff members to obtain details on their individual journey requirements.

- 4.23 The TPCs will encourage walking as a mode of travel to the site by implementing the following initiatives:
- Raise awareness of the health benefits of walking through promotional material;
  - Provide a map showing walking routes, indicating distances and times to the most common destinations near to the site; and,
  - Ensure that footways on site are well maintained and lit and any defects reported to the highways authority on an annual/biannual basis.
- 4.24 In conjunction with the pedestrian initiatives, the TPCs will investigate the potential to set up a bicycle user group (BUG) to encourage staff members to cycle to work.
- 4.25 The TPCs will set up a car sharing scheme, utilising the online website [www.liftshare.com](http://www.liftshare.com), within 3 months of receiving the initial travel surveys. Staff members will be contacted by the TPCs to allow potential car sharers to register an interest and provide details of their journey to and from work along with their contact details. The TPCs will then identify suitable matches for staff members who may be able to share their journeys to and from work.
- 4.26 The TPCs will monitor travel patterns on an annual basis for the first five years of the occupation of the site and then at suitable intervals as agreed by the Local Planning Authority. The monitoring of the plan is important for the following reasons:
- It will ensure that the Local Planning Authority can see that the aims and objectives of the TIS are being achieved;
  - It justifies the commitment of the TPC/s and of other resources;
  - It maintains support for the plan by reporting successes;
  - It identifies any measures that are not working or problems with the approach of the Plan;
  - It can be shared with other organisations to refine the development of the Plan.
- 4.27 The TPCs will develop the monitoring programme in conjunction with the Local Planning Authority to ensure that the monitoring procedures are appropriate. The TPCs will maintain a monitoring table of progress to key TIS targets based on the results of the monitoring travel surveys. This table will be published on the staff notice board.
- 4.28 The TPCs will make information on mode share available to the Local Planning Authority as part of the continuous monitoring process, subject to the provisions of the Data Protection Act.
- 4.29 The TPCs will undertake an annual review of the TIS in conjunction with the Local Planning Authority. This review will be important in assessing the effectiveness of the measures
-

implemented and to identify areas where modification may be necessary. In particular the following will be assessed:

- The level of car/non-car usage at the site; and,
- Comments received from staff.

4.30 When reviewing the effectiveness of the TIS, the following questions will be asked:

- Which areas offer the greatest potential for change/improvement?
- Was the initiative implemented by the target date?
- How well used is each scheme/initiative?
- How much did it cost to introduce?

4.31 The TPCs will compare the mode share statistics obtained from the annual monitoring to the targets set for the development. The TPCs will set revised realistic targets for modal shifts to non-car travel modes and investigate the effectiveness of the TIS initiatives being promoted in conjunction with the Local Planning Authority.

4.32 In light of the data collected from the monitoring process, the TPCs will adapt the TIS to enable the revised agreed targets to be achieved and submit a review report to be agreed with the Local Planning Authority.

## **Conclusions**

4.33 The policies set out above promote common aims of reducing car borne trips and encouraging travel by sustainable modes such as public transport, walking and cycling. The proposed development is well located in relation to sustainable transport facilities making the development accessible to non-car modes of transport.

4.34 It is considered that the delivery of the TIS / TP can be secured by planning condition, as appropriate.

## 5.0 ACCESSIBILITY

### General

- 5.1 This chapter presents a review of the accessibility of the site by walking, cycling and public transport modes. Policies to encourage travel by sustainable modes are developed further within the TIS / TP for the development that accompanies this application.
- 5.2 The accessibility of the site by non-car modes has been assessed by comparison with the following threshold distances, as set out by Andrew Davies AM ‘Minister for Economic Development and Transport’ in his foreword to the 2003 *“Walking and Cycling Strategy for Wales”* document:

| Threshold Distance | Significance                                                        |
|--------------------|---------------------------------------------------------------------|
| 1 mile             | Walking can offer viable and attractive alternatives [to car trips] |
| 5 miles            | Cycling can offer viable and attractive alternatives [to car trips] |

### Pedestrian Accessibility

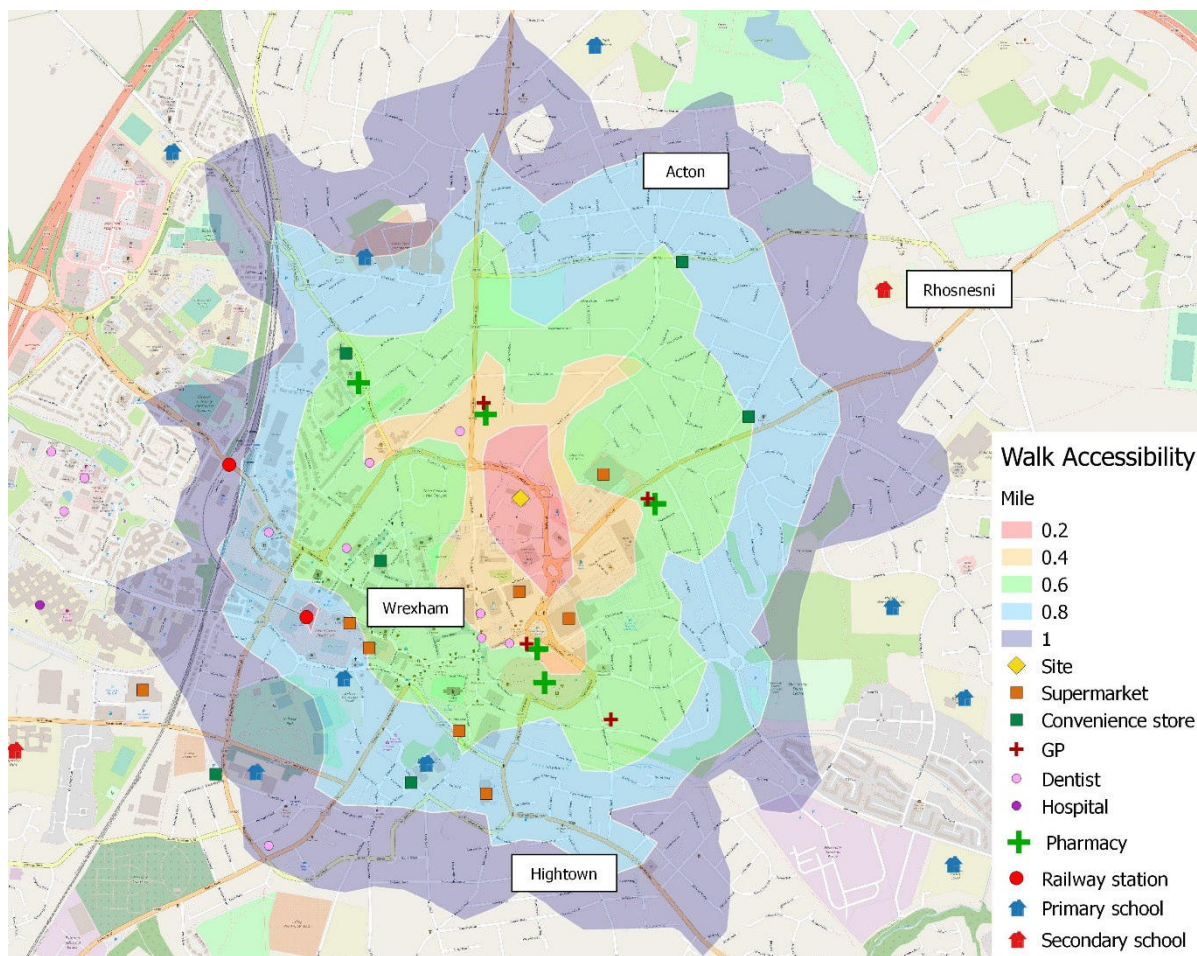
- 5.3 The site is located approximately 0.3 miles from Wrexham Town Centre, which is considered an acceptable walking distance. **Table 2** below show a non-exhaustive list of local amenities close to the site, while **Figure 4** shows all the local amenities available within 1 mile of the site.

*Table 2: Local Amenities*

| Facility       | Details                       | Distance from site<br>(miles – crow fly) |
|----------------|-------------------------------|------------------------------------------|
| Bus stop       | Police HQ Bus Stop            | 0.05                                     |
| Primary School | Alexandra C.P. School         | 0.13                                     |
| Supermarket    | Asda                          | 0.14                                     |
| Dentist        | Wrexham Dental Centre         | 0.15                                     |
| Pharmacy       | Rowlands Pharmacy             | 0.17                                     |
| Bus Station    | Wrexham Bus Station           | 0.27                                     |
| Train station  | Wrexham Central Train Station | 0.43                                     |
| Train station  | Wrexham General Train Station | 0.52                                     |

- 5.4 The site can be accessed via Powell Road / A5152 at the north of the site and via Bodhyfryd at the south. Both routes have footpaths either alongside the road or segregated from the road, which benefit from good surfacing and street lighting. Uncontrolled pedestrian crossings are also available on the routes. The area is therefore conducive to walking.
- 5.5 There is a subway under Powell Road linking Park Avenue and Bodhyfryd via a segregated footpath west of our proposed site. A pedestrian footpath link is proposed at the south-west of the site to link the proposed development to the existing subway. Two other footpath links at the south will link the proposed site with Bodhyfryd.
- 5.6 The pedestrian accessibility of the development has been modelled using the Geographical Information System (GIS) software TRACC to produce isochrone mapping figures. The purpose of the isochrones is to demonstrate the amenities and areas within an acceptable walking distance of 1 mile of the site. The areas located within 1-mile walking distance of the site are shown below on **Figure 4** and include Acton, Rhosnesni and Hightown.
- 5.7 Amenities such as bars, restaurants, leisure centre and post office are not represented on the map below but are available within Wrexham Town Centre.

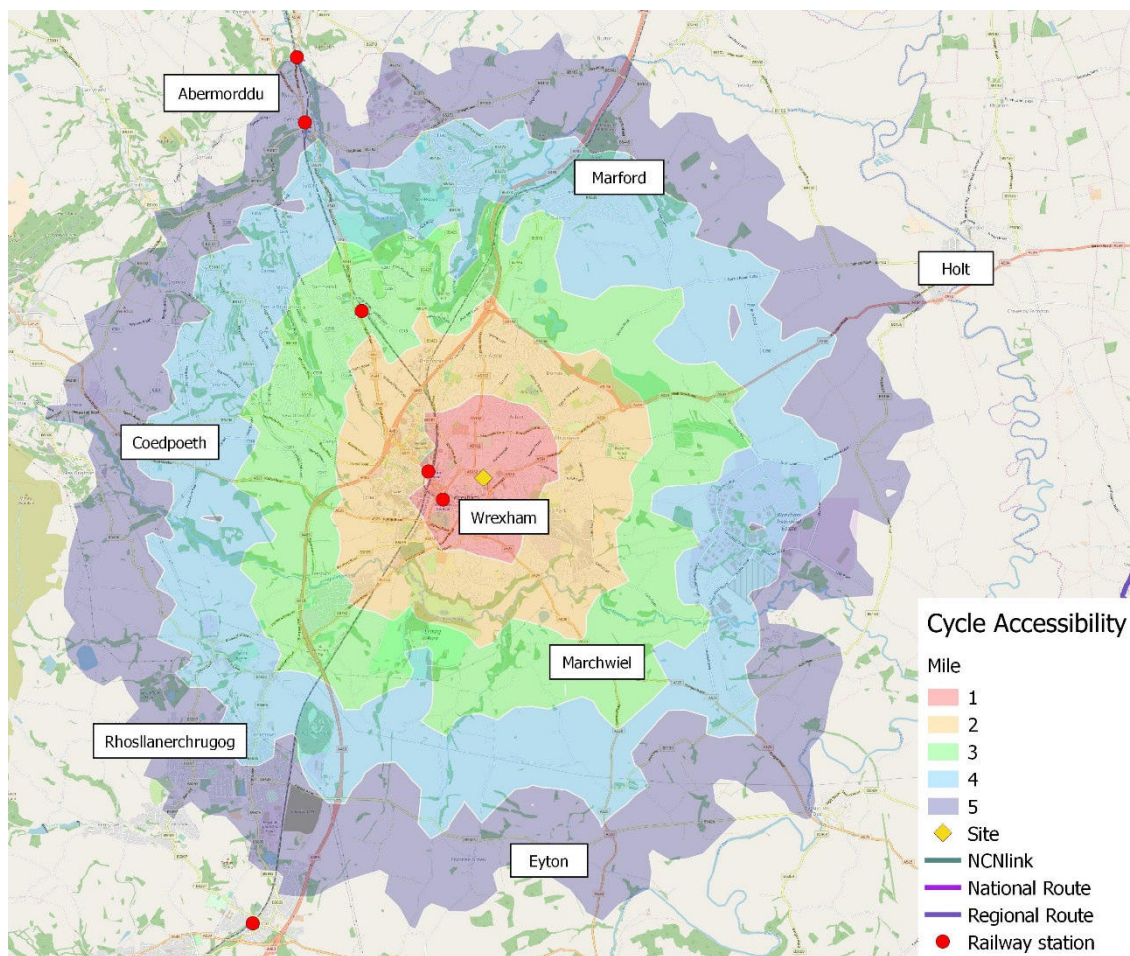
Figure 4: 1-mile Walk Accessibility



## Cycling

- 5.8 PPW identifies that “Cycling should also be encouraged for short trips and as a substitute for shorter car journeys or, as part of a longer journey when combined with public transport.”
- 5.9 The TRACC software has been used to assess the accessibility of the development by bike from the site. Isochrones illustrating the areas which lie within 5 miles of the site can be seen on the **Figure 5** below.

Figure 5: 5-mile Cycle Accessibility



- 5.10 The plan demonstrates that several towns are within the 5-mile catchment, including Abermorddu, Marford, Marchwiell, Eyton, Coedpoeth and Rhosllanerchrugog.
- 5.11 There is no national or regional cycle routes around Wrexham. WCBC have nevertheless published a map with walking and cycling routes around Wrexham Town Centre, as per **Figure 6** below. A few cycle routes on the road are available in the vicinity of the site.

Figure 6: WCBC Walking and Cycling routes map



Source: WCBC website - [http://www.wrexham.gov.uk/assets/pdfs/consultations/active\\_travel/wrexham\\_town\\_north.pdf](http://www.wrexham.gov.uk/assets/pdfs/consultations/active_travel/wrexham_town_north.pdf)

- 5.12 The existing cycle infrastructure combined with the cycle stand provision for cyclists on-site will ensure that employees and customers alike will be easily and safely able to access the proposed development by bike.

### Public Transport

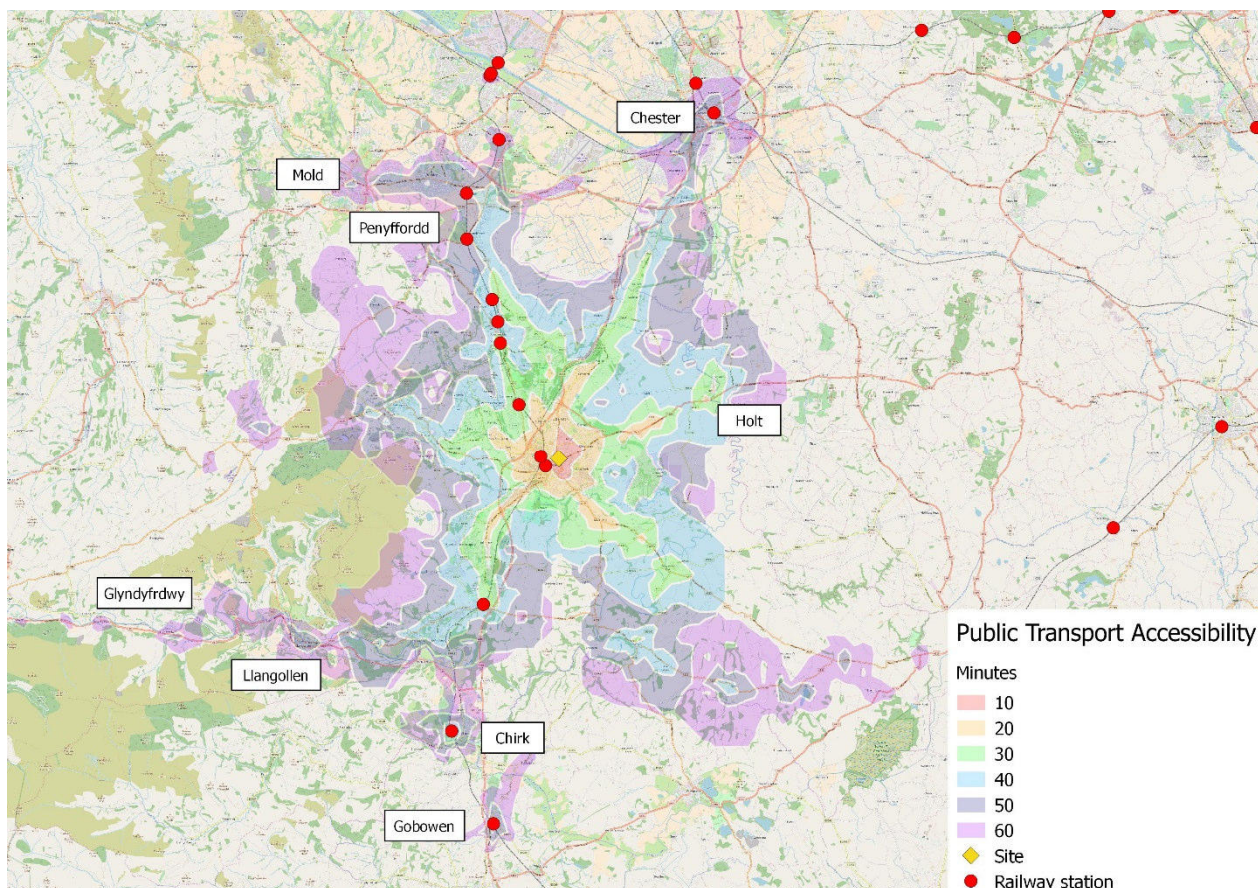
- 5.13 The development is well placed to encourage travel by bus and train. Guidance published by the CIHT 'Planning for Public Transport in Developments' (1999), recommends that *"Bus stops are located to minimise passengers' walking distance to their final destination. The maximum walking distance to a bus stop should not exceed 400m and preferably be no more than 300m."*
- 5.14 The proposed site is near several bus stops located within 300m of the site, the closest one at approximately 0.05 mile (80m). **Table 3** below shows details of the bus services running from the nearby bus stops.

*Table 3: Bus Services*

| Service Number | Route                                           | Average Service    |                    |     |
|----------------|-------------------------------------------------|--------------------|--------------------|-----|
|                |                                                 | Mon-Fri            | Sat                | Sun |
| 1E             | Brynteg - Wrexham Industrail Estate             | Two buses per day  | -                  | -   |
| 146            | Wrexham - Bangor - Hanmer - Whitchurch          | Five buses per day | Five buses per day | -   |
| PC2            | Gatewen - Llay Industrial Estate via Queenspark | One bus per day    | -                  | -   |
| 7 / 8          | Wrexham to Caia Park                            | Every 30 min       | Every 30 min       | -   |
| 41 / 41A       | Wrexham Bus Station - Redwither Tower           | Every hour         | Every hour         | -   |
| C56            | Wrexham to Chester                              | Every 2 hours      | Every 2 hours      | -   |

- 5.15 The table above shows an irregular bus service to some destinations however the proposed site is also located within 1 mile of two train stations, Wrexham Central Station (0.43 mile) and Wrexham General Station (0.52mile). Wrexham Central Station only has trains to Bidston whilst Wrexham General serves destinations such as Holyhead, Birmingham, Cardiff, Chester and Shrewsbury.
- 5.16 Both railway stations in Wrexham have cycle stands: 20 sheltered cycle parking spaces in Wrexham General and 8 non-sheltered cycle parking in Wrexham Central.
- 5.17 The TRACC software has been used to assess the accessibility of the development within a 60-minute public transport (bus and rail) commute, as shown in **Figure 7**. The map shows the reachable areas within 10 minutes coloured bands from the site, including the walk to the bus stops / railway station.

Figure 7: 60-Minute Public Transport Accessibility



- 5.18 **Figure 7** demonstrates that key areas of Chester, Mold, Holt, Chirk, Gobowen, Llangollen and Glyndyfrdwy, amongst others, are within an acceptable 60-minute public transport commute.

### Accessibility Summary

- 5.19 Having regard to the above, it is considered that the site is reasonably well located in terms of accessibility by all major non-car modes of transport.

## 6.0 DEVELOPMENT RELATED TRANSPORT MOVEMENTS

- 6.1 This chapter provides an estimation of the likely trip-generating potential of the existing and proposed site uses during the weekday PM and Saturday peak hours. The assessment is based on those peak hours when the combination of development-related traffic and local highway peak traffic are highest, in order to present a robust, worst-case scenario. In this case, the peak hours to be assessed are 17:00 to 18:00 on a weekday and 11:00 to 12:00 on a Saturday.
- 6.2 The estimated distribution and assignment of development-related traffic and background traffic growth forecasts (to the assessment year of 2023) are also set out.

### Existing Police Station Trip Generation

- 6.3 Turning counts were undertaken at the junction of Powell Road / Alexandra C.P. School / Asda / A5152 / Police Station (Lidl) on Tuesday 20<sup>th</sup> March and Saturday 24<sup>th</sup> March to assess the trip generation of the current police station. The full results can be found in **Appendix 1**.
- 6.4 The current site
- 6.5 **Table 4** below presents the results from the survey at the existing roundabout access. Traffic flows along Powell Road / A5152 will be adjusted to remove the observed police traffic from the network.

*Table 4: Weekday PM and Saturday Peak Hour Observed Trip Rate and Trip Generation*

| Police Station                      | Weekday PM (1700 – 1800) |            | Saturday Peak (1100 – 1200) |            |
|-------------------------------------|--------------------------|------------|-----------------------------|------------|
|                                     | Arrivals                 | Departures | Arrivals                    | Departures |
| Vehicles – Observed Trip Rate       |                          |            |                             |            |
| Vehicles – Observed Trip Generation | 6                        | 29         | 7                           | 5          |

### Proposed Food Store Trip Generation

- 6.6 In order to present a robust set of capacity assessments later in this TA, trip rates based on other existing Lidl stores with a similar RFA have been used. The average trip rate was calculated from six existing Lidl stores around the country for both the weekday and Saturday.
- 6.7 The stores surveyed include six sites across the country: those at Skegness, Rushden, Bingham, Birmingham, West Bromwich and Worcester. Four of the stores have a RFA of 1,424m<sup>2</sup> while the remaining two have a RFA of 1,341m<sup>2</sup>.

- 6.8 **Table 5** below provides the peak hour trip rates for these stores for the weekday PM and Saturday hourly peak periods as well as the estimated trip generation for our proposed discount food retail unit of 1,325m<sup>2</sup> RFA. The full TRICS outputs are included in **Appendix 4**.

*Table 5: Weekday PM and Saturday Peak Hour Trip Rates (per 100m<sup>2</sup> RFA)*

| Discount Food Retail<br>(Similar Lidl Stores) | Weekday PM Peak (1700 – 1800) |            | Saturday Peak (1100 – 1200) |            |
|-----------------------------------------------|-------------------------------|------------|-----------------------------|------------|
|                                               | Arrivals                      | Departures | Arrivals                    | Departures |
| Vehicles Trip Rate                            | 6.493                         | 6.517      | 10.611                      | 11.447     |
| Vehicles Trip Generation                      | 86                            | 86         | 146                         | 134        |

### Drive-through Trip Generation

- 6.9 In order to present a robust set of capacity assessments, trip rates based on other existing drive-through with a similar GFA have been used.
- 6.10 The full TRICS outputs can be found in **Appendix 4** and are summarised in Table 6 below to provide the peak hour trip rates for the drive-through for the Weekday PM and Saturday peak periods. The GFA of the proposed drive-through is 205m<sup>2</sup>.

*Table 6: Weekday PM and Saturday Peak Trip Rates (per 100m<sup>2</sup> GFA)*

| Fast food – Drive-through | Weekday PM Peak (1700 – 1800) |            | Saturday Peak (1100 – 1200) |            |
|---------------------------|-------------------------------|------------|-----------------------------|------------|
|                           | Arrivals                      | Departures | Arrivals                    | Departures |
| Vehicles Trip Rate        | 9.440                         | 9.261      | 20.447                      | 18.004     |
| Vehicles Trip Generation  | 19                            | 19         | 42                          | 37         |

### Net Traffic Generation

- 6.11 To establish the difference in traffic flows as a result of the redevelopment, the flows from the existing police station have been deducted from that of the proposed Lidl and drive-through development. The net traffic generation of the site is presented in **Table 7** below.

*Table 7: Net Traffic Generation*

|                               | Weekday PM Peak (1700 – 1800) |            | Saturday Peak (1100 – 1200) |            |
|-------------------------------|-------------------------------|------------|-----------------------------|------------|
|                               | Arrivals                      | Departures | Arrivals                    | Departures |
| Proposed Lidl Trips           | 86                            | 86         | 146                         | 134        |
| Propose Drive-through Trips   | 19                            | 19         | 42                          | 37         |
| Existing Police Station Trips | 6                             | 29         | 7                           | 5          |
| <b>Net Trips</b>              | <b>99</b>                     | <b>77</b>  | <b>181</b>                  | <b>166</b> |

## Trip Types

- 6.12 The latest research on trip types is set out within the TRICS Research Report 14/1 and supersedes TRICS Research Report 95/2. This has shown that the vast majority of trips associated with new food retail developments are not 'new' but are a 'secondary' trip as part of an existing journey. The secondary trips can be split into two types; 'linked' to other shops and 'pass-by' where trips are already on the main road past the site. The research does not specifically mention trips 'diverted' from other stores (although this may come under the linked umbrella) or 'transferred' from another store (using the new store instead of an existing foodstore). The research relating to linked trips do not differentiate between trips to other stores on the same site or trips to other stores off-site.
- 6.13 From established research, typical proportions of trip types are summarised in **Table 8** below.

*Table 8: Typical Trip Type Proportions*

| Typical Trip Type Proportions |                             |         |
|-------------------------------|-----------------------------|---------|
| Research Source               | Range of Each Trip Type (%) |         |
|                               | Linked                      | Pass-By |
| Somerfield 1996               | 46%                         |         |
| Benison et al 2000 for Tesco  | 40%                         |         |
| Tesco 2001                    | 49%                         |         |
| Harrison et al 2012           | 57-67%                      |         |
| Ghezani et al 2012            |                             | 72%     |
| Wrigley 2006                  | 60%                         |         |
| Alsop Verrill                 | 20%                         |         |
| MacIver 1999                  |                             | 15-35%  |

- 6.14 The general consensus from the research is that those stores located in Town Centres or on commuter routes will experience higher levels of pass-by and linked trips. Stores with floor areas of less than 4000m<sup>2</sup> GFA are more likely to act as a convenience store and a convenience store is likely to experience much higher rates of pass-by traffic.
- 6.15 In light of this research and given the scale of the study area, the following trip type assumptions have been made:
- i) New (primary) trips - It has been assumed that 20% of trips will be entirely new to the local highway network in this location.
  - ii) Pass-by/diverted/linked trips - These are trips that are already on the network as part of a primary trip. Given that the site is on a main route around the town centre, linking to major links such as the A483, A5156 and A534 at the north, the store may act as a convenience store for commuters on their way to/from work. The proposed site is also located near existing food stores such as Asda Superstore and Tesco Extra, which means that existing trips may re-route to this new food store. A proportion of 80% has been assumed for this purpose.
- 6.16 It is also assumed that 100% of the trips to and from the drive-through will be pass-by and that the drive-through will not create new traffic at peak trading times for the foodstore.
- 6.17 The general trend is therefore for the following approximate proportions of trip types as shown in **Table 9** below.

*Table 9: Concluded Trip Type Proportions*

| Concluded Trip Type Proportions |                        |               |
|---------------------------------|------------------------|---------------|
| Trip Type                       | Approximate Proportion |               |
|                                 | Foodstore              | Drive-through |
| New                             | 20%                    | 0%            |
| Pass-by                         | 80%                    | 100%          |

### **Trip Distribution and Assignment**

- 6.18 The 'new primary' vehicular distribution of the development traffic has been determined through reference to the percentage distribution of existing trips travelling both northbound and southbound past the proposed access. The percentage trips which enter the highway network

have then been distributed locally using the existing surveyed turning proportions observed at the roundabout junction.

- 6.19 The 'pass-by' trip distribution has also been calculated using the same method as above.
- 6.20 The resultant generated traffic distributed on the local highway network from the Lidl site is indicated within **Appendix 5**.

### Background Traffic Growth

- 6.21 In accordance with the DfT's "Guidance on Transport Assessment", which states "for the local transport network, a development should be assessed with regard to the LDF, and for a period of no less than five years after the date of registration of a planning application"; the future assessment year for this TA is therefore 2023.
- 6.22 TEMPRO v7.2 has been used to calculate background traffic growth between 2018 and 2023. The TEMPRO growth factors are summarised in **Table 10** and can be found in **Appendix 6**.

*Table 10: Growth Factors*

| Period          | 2018-2023 |
|-----------------|-----------|
| Weekday PM Peak | 1.0674    |
| Saturday Peak   | 1.0694    |

### Car Parking

- 6.23 A car parking accumulation exercise has been carried out for both the weekday and Saturday, as shown in **Table 11** below. The highest demand in the weekday is between 12:00 and 13:00 for 56 car parking spaces, whilst the highest demand on Saturday is between 14:00 and 15:00 for 66 car parking spaces.

*Table 11: Parking Accumulation Weekday and Saturday - RFA 1,325m<sup>2</sup>*

| Time<br>(commencing) | Weekday  |            |                      | Saturday |            |                      |
|----------------------|----------|------------|----------------------|----------|------------|----------------------|
|                      | Arrivals | Departures | Parking Requirements | Arrivals | Departures | Parking Requirements |
| 06:00                | 4        | 1          | 3                    | 5        | 2          | 3                    |
| 07:00                | 6        | 2          | 7                    | 10       | 2          | 11                   |
| 08:00                | 53       | 33         | 26                   | 61       | 40         | 32                   |
| 09:00                | 71       | 59         | 38                   | 80       | 75         | 37                   |
| 10:00                | 73       | 64         | 47                   | 123      | 108        | 52                   |
| 11:00                | 82       | 75         | 55                   | 146      | 134        | 64                   |
| 12:00                | 79       | 78         | 56                   | 141      | 152        | 53                   |
| 13:00                | 84       | 96         | 43                   | 139      | 130        | 61                   |
| 14:00                | 92       | 86         | 50                   | 128      | 123        | 66                   |
| 15:00                | 92       | 90         | 52                   | 127      | 139        | 54                   |
| 16:00                | 87       | 96         | 43                   | 121      | 125        | 49                   |
| 17:00                | 86       | 86         | 43                   | 97       | 94         | 52                   |
| 18:00                | 77       | 83         | 36                   | 72       | 88         | 36                   |
| 19:00                | 59       | 68         | 28                   | 47       | 60         | 23                   |
| 20:00                | 41       | 54         | 15                   | 33       | 38         | 18                   |
| 21:00                | 14       | 25         | 5                    | 15       | 23         | 10                   |
| 22:00                | 0        | 6          | -1                   | 1        | 7          | 5                    |

- 6.24 A maximum of 152 car parking spaces would be required for our proposed development according to the maximum standard laid out in Local Planning Guidance Note (LPG) 16. However we are proposing a total of 120 car parking spaces as part of our scheme.
- 6.25 This parking accumulation exercise shows that while the car parking provision is lower than what the maximum standard expects, the maximum demand for car parking on weekday and Saturday is expected to be approximately half of the proposed provision of car parking spaces (i.e. 66 out of 120 spaces available).
- 6.26 Therefore, the provision of 120 car parking spaces should be more than enough to cover for the customer parking requirements on weekday and Saturday and allow for peak trading conditions at Easter and Christmas.

## 7.0 ANTICIPATED HIGHWAY IMPACTS

7.1 This chapter describes the impact of the additional trips generated by the proposed development on the operation of Powell Road / Alexandra C.P. School / Asda / A5152 / Police Station(Lidl) roundabout once the Lidl store is fully operational. The capacity of the junction has been assessed for the future base plus development scenario of 2023.

### Assessment Methodology

7.2 An assessment of the existing Powell Road / Alexandra C.P. School / Asda / A5152 / Police Station(Lidl) roundabout junction has been undertaken using Junctions 9 (ARCADY) software.

7.3 With the Junctions 9 models the results generated provide a Ratio of Flow to capacity (RFC) along with an estimate of the likely traffic queues. RFC values between 0.00 and 0.85 are generally accepted as representing stable and acceptable operating conditions. Values between 0.85 and 1 represent variable operation (i.e. possible queues building up at the junction during the period under consideration and increases in vehicular delay moving through the junction). RFC values in excess of 1 represent overloaded conditions (i.e. congestion).

### Results

7.4 The results of the Junctions 9 (ARCADY) assessment are presented in **Table 12** below and can also be found in full in **Appendix 7**.

*Table 12 ARCADY Outputs*

| Arm                                | Weekday PM Peak |           |      | Saturday Peak |           |      |
|------------------------------------|-----------------|-----------|------|---------------|-----------|------|
|                                    | Queue (PCU)     | Delay (s) | RFC  | Queue (PCU)   | Delay (s) | RFC  |
| <b>Base 2018</b>                   |                 |           |      |               |           |      |
| 1 – Asda                           | 0.5             | 4.69      | 0.31 | 0.7           | 4.95      | 0.37 |
| 2 – A5152                          | 0.8             | 3.73      | 0.43 | 0.9           | 3.86      | 0.45 |
| 3 – Police Station / Proposed Site | 0.0             | 4.97      | 0.04 | 0.0           | 4.97      | 0.01 |
| 4 – Powell Road                    | 0.7             | 2.89      | 0.39 | 0.8           | 3.11      | 0.43 |
| 5 – Alexandra C.P. School          | 0.0             | 4.82      | 0.02 | 0.0           | 0.00      | 0.00 |
| <b>Base 2023</b>                   |                 |           |      |               |           |      |
| 1 – Asda                           | 0.6             | 5.03      | 0.34 | 0.8           | 5.36      | 0.41 |
| 2 – A5152                          | 1.0             | 3.97      | 0.47 | 1.0           | 4.14      | 0.48 |

| Arm                                | Weekday PM Peak |           |      | Saturday Peak |           |      |
|------------------------------------|-----------------|-----------|------|---------------|-----------|------|
|                                    | Queue (PCU)     | Delay (s) | RFC  | Queue (PCU)   | Delay (s) | RFC  |
| 3 – Police Station / Proposed Site | 0.0             | 5.23      | 0.04 | 0.0           | 5.25      | 0.01 |
| 4 – Powell Road                    | 0.8             | 3.05      | 0.42 | 1.0           | 3.31      | 0.46 |
| 5 – Alexandra C.P. School          | 0.0             | 5.11      | 0.02 | 0.0           | 0.00      | 0.00 |
| <b>Base 2023 + Development</b>     |                 |           |      |               |           |      |
| 1 – Asda                           | 0.6             | 5.03      | 0.34 | 0.8           | 5.36      | 0.41 |
| 2 – A5152                          | 1.0             | 3.97      | 0.47 | 1.0           | 4.14      | 0.48 |
| 3 – Police Station / Proposed Site | 0.0             | 5.23      | 0.04 | 0.0           | 5.25      | 0.01 |
| 4 – Powell Road                    | 0.8             | 3.05      | 0.42 | 1.0           | 3.31      | 0.46 |
| 5 – Alexandra C.P. School          | 0.0             | 5.11      | 0.02 | 0.0           | 0.00      | 0.00 |

7.5 The results above show that the all-movements site access will operate well within its practical capacity in the future assessment year of 2023 with the Lidl development. The maximum RFC is 0.48 which is forecast for the A5152 exit in the Saturday peak period in 2023 and 2023 + Development.

7.6 The ARCADY modelling shows that there is no threat to the free-flow of traffic at this location.

## **8.0 SUMMARY AND CONCLUSIONS**

### **Summary**

- 8.1 This Transport Assessment (TA) has been prepared on behalf of Lidl UK GmbH to inform the local Highway Authority, Wrexham County Borough Council, of the transport and highways implications of the proposed redevelopment of the Wrexham Police Station, Wrexham with a Lidl foodstore with parking for 120 cars and a drive-through with 30 parking spaces.
- 8.2 The sustainability of the site has been assessed in terms of its accessibility by walking, cycling and public transport modes. The site has a good level of accessibility by non-car modes of transport and links existing pedestrian routes to and from the site.
- 8.3 A total of 120 car parking spaces will be provided on the site as part of the proposed foodstore layout, this will include eight parent and child spaces and seven disabled parking spaces. These spaces will be clearly marked and positioned close to the store entrance and trolley bay for customers' convenience. There will also be four Sheffield cycle parking stands (i.e. eight cycle parking spaces) within the car park to encourage cycle trips to the site.
- 8.4 A total of 30 car parking spaces will be provided as part of the drive-through development, including two disabled parking spaces situated close to the entrance.
- 8.5 Although the number of car parking spaces proposed for the foodstore is under the maximum standard laid out in Local Planning Guidance Note (LPG) 16, it is considered that 128 car parking spaces will be sufficient considering the parking accumulation exercise and accessibility to the site by other means of transport.
- 8.6 The most recent five-year safety record has been examined. The nature and number of personal injury accidents recorded raises no particular highway safety concerns and do not suggest inherent road safety issue present on the local adopted highway network adjacent to the application site which the proposed development would exacerbate. We do not therefore consider road safety to present a material concern in the context of the development proposal.
- 8.7 Deliveries to the store will be made by articulated lorry via Powell Road / A5152. Swept path analysis indicates that a 16.5m long HGV will be able to satisfactorily enter, service, turn within and exit the site in a forward gear. It is anticipated that there will be one to two dedicated deliveries per average day, increasing to three during seasonal peak periods, such as Easter and Christmas.

## **Conclusion**

- 8.8 In the light of the above assessment and the lack of any threat to the dual interests of the free-flow of traffic and highway safety, it is therefore concluded that there are no highways-related reasons to withhold planning permission for the proposed development.

**S|C|P**

## **APPENDIX 1**

Manual Classified Pedestrian Counts, Wrexham

DATE:

LOCATION:

ARM:

| TIME / CLASS  | NORTHBOUND |       |     |                      |       | SOUTHBOUND |       |     |                      |       | TOTAL<br>MOVEMENT<br>FROM ARM |
|---------------|------------|-------|-----|----------------------|-------|------------|-------|-----|----------------------|-------|-------------------------------|
|               | ADULT      | CHILD | OAP | MIBILITY<br>IMPAIRED | TOTAL | ADULT      | CHILD | OAP | MIBILITY<br>IMPAIRED | TOTAL |                               |
| 15:30 - 15:45 | 2          | 1     | 0   | 0                    | 3     | 1          | 0     | 0   | 0                    | 1     | 4                             |
| 15:45 - 16:00 | 2          | 0     | 0   | 0                    | 2     | 1          | 1     | 0   | 0                    | 2     | 4                             |
| 16:00 - 16:15 | 3          | 0     | 0   | 0                    | 3     | 2          | 0     | 0   | 0                    | 2     | 5                             |
| 16:15 - 16:30 | 1          | 0     | 0   | 0                    | 1     | 0          | 0     | 0   | 0                    | 0     | 1                             |
| HOURLY TOTAL  | 8          | 1     | 0   | 0                    | 9     | 4          | 1     | 0   | 0                    | 5     | 14                            |
| 16:30 - 16:45 | 1          | 0     | 0   | 0                    | 1     | 0          | 0     | 0   | 0                    | 0     | 1                             |
| 16:45 - 17:00 | 0          | 0     | 0   | 0                    | 0     | 0          | 0     | 0   | 0                    | 0     | 0                             |
| 17:00 - 17:15 | 3          | 0     | 0   | 0                    | 3     | 0          | 0     | 0   | 0                    | 0     | 3                             |
| 17:15 - 17:30 | 0          | 0     | 0   | 0                    | 0     | 0          | 0     | 0   | 0                    | 0     | 0                             |
| HOURLY TOTAL  | 4          | 0     | 0   | 0                    | 4     | 0          | 0     | 0   | 0                    | 0     | 4                             |
| 17:30 - 17:45 | 1          | 0     | 0   | 0                    | 1     | 1          | 0     | 0   | 0                    | 1     | 2                             |
| 17:45 - 18:00 | 1          | 0     | 0   | 0                    | 1     | 1          | 0     | 0   | 0                    | 1     | 2                             |
| 18:00 - 18:15 | 3          | 0     | 0   | 0                    | 3     | 0          | 0     | 0   | 0                    | 0     | 3                             |
| 18:15 - 18:30 | 0          | 0     | 0   | 0                    | 0     | 2          | 0     | 0   | 0                    | 2     | 2                             |
| HOURLY TOTAL  | 5          | 0     | 0   | 0                    | 5     | 4          | 0     | 0   | 0                    | 4     | 9                             |
| PERIOD TOTAL  | 17         | 1     | 0   | 0                    | 18    | 8          | 1     | 0   | 0                    | 9     | 27                            |

DATE:

|               |   |   |   |   |   |    |   |   |   |    |    |
|---------------|---|---|---|---|---|----|---|---|---|----|----|
| 11:00 - 11:15 | 0 | 0 | 0 | 0 | 0 | 1  | 0 | 0 | 0 | 0  | 2  |
| 11:15 - 11:30 | 1 | 0 | 0 | 0 | 1 | 0  | 0 | 0 | 0 | 0  | 0  |
| 11:30 - 11:45 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0  | 0  |
| 11:45 - 12:00 | 1 | 0 | 0 | 0 | 1 | 4  | 1 | 0 | 0 | 5  | 6  |
| HOURLY TOTAL  | 2 | 0 | 0 | 0 | 2 | 5  | 1 | 1 | 0 | 7  | 9  |
| 12:00 - 12:15 | 2 | 0 | 0 | 0 | 2 | 0  | 0 | 0 | 0 | 0  | 2  |
| 12:15 - 12:30 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 3 | 0 | 3  | 3  |
| 12:30 - 12:45 | 1 | 0 | 0 | 0 | 1 | 1  | 0 | 0 | 0 | 1  | 2  |
| 12:45 - 13:00 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0  | 0  |
| HOURLY TOTAL  | 3 | 0 | 0 | 0 | 3 | 1  | 0 | 3 | 0 | 4  | 7  |
| 13:00 - 13:15 | 0 | 0 | 0 | 0 | 0 | 4  | 0 | 0 | 0 | 4  | 4  |
| 13:15 - 13:30 | 0 | 0 | 0 | 0 | 0 | 1  | 0 | 0 | 0 | 1  | 1  |
| 13:30 - 13:45 | 0 | 0 | 0 | 0 | 0 | 1  | 3 | 0 | 0 | 4  | 4  |
| 13:45 - 14:00 | 0 | 0 | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0  | 0  |
| HOURLY TOTAL  | 0 | 0 | 0 | 0 | 0 | 6  | 3 | 0 | 0 | 9  | 9  |
| PERIOD TOTAL  | 5 | 0 | 0 | 0 | 5 | 12 | 4 | 4 | 0 | 20 | 25 |

# Manual Classified Queue Survey, Wrexham

DATE: TUESDAY 20th MARCH 2018

LOCATION: POWELL ROAD / SCHOOL / ASDA/ BODHYFRYD / POLICE STATION

ARM: POWELL ROAD

| Max Queue in 5 minute | LANE 1 |         |                  |              | LANE 2 |         |                  |              |
|-----------------------|--------|---------|------------------|--------------|--------|---------|------------------|--------------|
|                       | LIGHTS | HEAVIES | QUEUE LENGTH (M) | %AGE HEAVIES | LIGHTS | HEAVIES | QUEUE LENGTH (M) | %AGE HEAVIES |
| 15:30 - 15:35         | 4      | 0       | 22               | 0.0          | 2      | 0       | 11               | 0.0          |
| 15:35 - 15:40         | 3      | 0       | 16.5             | 0.0          | 2      | 0       | 11               | 0.0          |
| 15:40 - 15:45         | 4      | 0       | 22               | 0.0          | 3      | 0       | 16.5             | 0.0          |
| 15:45 - 15:50         | 5      | 0       | 27.5             | 0.0          | 2      | 0       | 11               | 0.0          |
| 15:50 - 15:55         | 4      | 0       | 22               | 0.0          | 1      | 0       | 5.5              | 0.0          |
| 15:55 - 16:00         | 3      | 0       | 16.5             | 0.0          | 4      | 0       | 22               | 0.0          |
| 16:00 - 16:05         | 2      | 0       | 11               | 0.0          | 3      | 0       | 16.5             | 0.0          |
| 16:05 - 16:10         | 4      | 0       | 22               | 0.0          | 3      | 0       | 16.5             | 0.0          |
| 16:10 - 16:15         | 4      | 0       | 22               | 0.0          | 2      | 0       | 11               | 0.0          |
| 16:15 - 16:20         | 3      | 0       | 16.5             | 0.0          | 2      | 0       | 11               | 0.0          |
| 16:20 - 16:25         | 3      | 0       | 16.5             | 0.0          | 2      | 0       | 11               | 0.0          |
| 16:25 - 16:30         | 2      | 0       | 11               | 0.0          | 2      | 0       | 11               | 0.0          |
| 16:30 - 16:35         | 4      | 0       | 22               | 0.0          | 3      | 0       | 16.5             | 0.0          |
| 16:35 - 16:40         | 5      | 0       | 27.5             | 0.0          | 1      | 0       | 5.5              | 0.0          |
| 16:40 - 16:45         | 3      | 0       | 16.5             | 0.0          | 4      | 0       | 22               | 0.0          |
| 16:45 - 16:50         | 3      | 0       | 16.5             | 0.0          | 2      | 0       | 11               | 0.0          |
| 16:50 - 16:55         | 2      | 0       | 11               | 0.0          | 2      | 0       | 11               | 0.0          |
| 16:55 - 17:00         | 3      | 0       | 16.5             | 0.0          | 2      | 0       | 11               | 0.0          |
| 17:00 - 17:05         | 4      | 0       | 22               | 0.0          | 2      | 0       | 11               | 0.0          |
| 17:05 - 17:10         | 5      | 0       | 27.5             | 0.0          | 2      | 0       | 11               | 0.0          |
| 17:10 - 17:15         | 6      | 0       | 33               | 0.0          | 1      | 0       | 5.5              | 0.0          |
| 17:15 - 17:20         | 4      | 0       | 22               | 0.0          | 0      | 0       | 0                | 0.0          |
| 17:20 - 17:25         | 4      | 0       | 22               | 0.0          | 3      | 0       | 16.5             | 0.0          |
| 17:25 - 17:30         | 4      | 0       | 22               | 0.0          | 2      | 0       | 11               | 0.0          |
| 17:30 - 17:35         | 3      | 0       | 16.5             | 0.0          | 1      | 0       | 5.5              | 0.0          |
| 17:35 - 17:40         | 2      | 0       | 11               | 0.0          | 1      | 0       | 5.5              | 0.0          |
| 17:40 - 17:45         | 3      | 0       | 16.5             | 0.0          | 1      | 0       | 5.5              | 0.0          |
| 17:45 - 17:50         | 1      | 0       | 5.5              | 0.0          | 0      | 0       | 0                | 0.0          |
| 17:50 - 17:55         | 3      | 0       | 16.5             | 0.0          | 1      | 0       | 5.5              | 0.0          |
| 17:55 - 18:00         | 4      | 0       | 22               | 0.0          | 1      | 0       | 5.5              | 0.0          |
| 18:00 - 18:05         | 2      | 0       | 11               | 0.0          | 2      | 0       | 11               | 0.0          |
| 18:05 - 18:10         | 2      | 0       | 11               | 0.0          | 2      | 0       | 11               | 0.0          |
| 18:10 - 18:15         | 2      | 0       | 11               | 0.0          | 1      | 0       | 5.5              | 0.0          |
| 18:15 - 18:20         | 0      | 0       | 0                | 0.0          | 0      | 0       | 0                | 0.0          |
| 18:20 - 18:25         | 1      | 0       | 5.5              | 0.0          | 0      | 0       | 0                | 0.0          |
| 18:25 - 18:30         | 1      | 0       | 5.5              | 0.0          | 0      | 0       | 0                | 0.0          |

DATE: SATURDAY 24th MARCH 2018

|               |   |   |      |     |   |   |      |     |
|---------------|---|---|------|-----|---|---|------|-----|
| 11:00 - 11:05 | 2 | 0 | 11   | 0.0 | 1 | 0 | 5.5  | 0.0 |
| 11:05 - 11:10 | 2 | 0 | 11   | 0.0 | 2 | 0 | 11   | 0.0 |
| 11:10 - 11:15 | 2 | 0 | 11   | 0.0 | 1 | 0 | 5.5  | 0.0 |
| 11:15 - 11:20 | 7 | 0 | 38.5 | 0.0 | 3 | 0 | 16.5 | 0.0 |
| 11:20 - 11:25 | 4 | 0 | 22   | 0.0 | 3 | 0 | 16.5 | 0.0 |
| 11:25 - 11:30 | 3 | 0 | 16.5 | 0.0 | 3 | 0 | 16.5 | 0.0 |
| 11:30 - 11:35 | 5 | 0 | 27.5 | 0.0 | 3 | 0 | 16.5 | 0.0 |
| 11:35 - 11:40 | 2 | 0 | 11   | 0.0 | 1 | 0 | 5.5  | 0.0 |
| 11:40 - 11:45 | 4 | 0 | 22   | 0.0 | 1 | 0 | 5.5  | 0.0 |
| 11:45 - 11:50 | 4 | 0 | 22   | 0.0 | 3 | 0 | 16.5 | 0.0 |
| 11:50 - 11:55 | 4 | 0 | 22   | 0.0 | 2 | 0 | 11   | 0.0 |
| 11:55 - 12:00 | 3 | 0 | 16.5 | 0.0 | 1 | 0 | 5.5  | 0.0 |
| 12:00 - 12:05 | 5 | 0 | 27.5 | 0.0 | 2 | 0 | 11   | 0.0 |
| 12:05 - 12:10 | 5 | 0 | 27.5 | 0.0 | 2 | 0 | 11   | 0.0 |
| 12:10 - 12:15 | 4 | 0 | 22   | 0.0 | 3 | 0 | 16.5 | 0.0 |
| 12:15 - 12:20 | 4 | 0 | 22   | 0.0 | 3 | 0 | 16.5 | 0.0 |
| 12:20 - 12:25 | 4 | 0 | 22   | 0.0 | 3 | 0 | 16.5 | 0.0 |
| 12:25 - 12:30 | 2 | 0 | 11   | 0.0 | 2 | 0 | 11   | 0.0 |
| 12:30 - 12:35 | 5 | 0 | 27.5 | 0.0 | 3 | 0 | 16.5 | 0.0 |
| 12:35 - 12:40 | 2 | 0 | 11   | 0.0 | 2 | 0 | 11   | 0.0 |
| 12:40 - 12:45 | 4 | 0 | 22   | 0.0 | 2 | 0 | 11   | 0.0 |
| 12:45 - 12:50 | 3 | 0 | 16.5 | 0.0 | 3 | 0 | 16.5 | 0.0 |
| 12:50 - 12:55 | 4 | 0 | 22   | 0.0 | 1 | 0 | 5.5  | 0.0 |
| 12:55 - 13:00 | 1 | 0 | 5.5  | 0.0 | 1 | 0 | 5.5  | 0.0 |
| 13:00 - 13:05 | 4 | 0 | 22   | 0.0 | 1 | 0 | 5.5  | 0.0 |
| 13:05 - 13:10 | 3 | 0 | 16.5 | 0.0 | 1 | 0 | 5.5  | 0.0 |
| 13:10 - 13:15 | 5 | 0 | 27.5 | 0.0 | 3 | 0 | 16.5 | 0.0 |
| 13:15 - 13:20 | 5 | 0 | 27.5 | 0.0 | 2 | 0 | 11   | 0.0 |
| 13:20 - 13:25 | 4 | 0 | 22   | 0.0 | 3 | 0 | 16.5 | 0.0 |
| 13:25 - 13:30 | 7 | 0 | 38.5 | 0.0 | 2 | 0 | 11   | 0.0 |
| 13:30 - 13:35 | 5 | 0 | 27.5 | 0.0 | 2 | 0 | 11   | 0.0 |
| 13:35 - 13:40 | 5 | 0 | 27.5 | 0.0 | 6 | 0 | 33   | 0.0 |
| 13:40 - 13:45 | 2 | 0 | 11   | 0.0 | 2 | 0 | 11   | 0.0 |
| 13:45 - 13:50 | 3 | 0 | 16.5 | 0.0 | 2 | 0 | 11   | 0.0 |
| 13:50 - 13:55 | 7 | 0 | 38.5 | 0.0 | 2 | 0 | 11   | 0.0 |
| 13:55 - 14:00 | 4 | 0 | 22   | 0.0 | 1 | 0 | 5.5  | 0.0 |

ARM: SCHOOL

| Max Queue in 5 minute | LANE 1 |         |                  |              |
|-----------------------|--------|---------|------------------|--------------|
|                       | LIGHTS | HEAVIES | QUEUE LENGTH (M) | %AGE HEAVIES |
| 15:30 - 15:35         | 2      | 0       | 11               | 0.0          |
| 15:35 - 15:40         | 1      | 0       | 5.5              | 0.0          |
| 15:40 - 15:45         | 1      | 0       | 5.5              | 0.0          |
| 15:45 - 15:50         | 1      | 0       | 5.5              | 0.0          |
| 15:50 - 15:55         | 1      | 0       | 5.5              | 0.0          |
| 15:55 - 16:00         | 1      | 0       | 5.5              | 0.0          |
| 16:00 - 16:05         | 2      | 0       | 11               | 0.0          |
| 16:05 - 16:10         | 2      | 0       | 11               | 0.0          |
| 16:10 - 16:15         | 2      | 0       | 11               | 0.0          |
| 16:15 - 16:20         | 1      | 0       | 5.5              | 0.0          |
| 16:20 - 16:25         | 1      | 0       | 5.5              | 0.0          |
| 16:25 - 16:30         | 0      | 0       | 0                | 0.0          |
| 16:30 - 16:35         | 0      | 0       | 0                | 0.0          |
| 16:35 - 16:40         | 2      | 0       | 11               | 0.0          |
| 16:40 - 16:45         | 0      | 0       | 0                | 0.0          |
| 16:45 - 16:50         | 0      | 0       | 0                | 0.0          |
| 16:50 - 16:55         | 1      | 0       | 5.5              | 0.0          |
| 16:55 - 17:00         | 2      | 0       | 11               | 0.0          |
| 17:00 - 17:05         | 0      | 0       | 0                | 0.0          |
| 17:05 - 17:10         | 1      | 0       | 5.5              | 0.0          |
| 17:10 - 17:15         | 0      | 0       | 0                | 0.0          |
| 17:15 - 17:20         | 1      | 0       | 5.5              | 0.0          |
| 17:20 - 17:25         | 0      | 0       | 0                | 0.0          |
| 17:25 - 17:30         | 20     | 0       | 110              | 0.0          |
| 17:30 - 17:35         | 2      | 0       | 11               | 0.0          |
| 17:35 - 17:40         | 3      | 0       | 16.5             | 0.0          |
| 17:40 - 17:45         | 0      | 0       | 0                | 0.0          |
| 17:45 - 17:50         | 0      | 0       | 0                | 0.0          |
| 17:50 - 17:55         | 1      | 0       | 5.5              | 0.0          |
| 17:55 - 18:00         | 0      | 0       | 0                | 0.0          |
| 18:00 - 18:05         | 0      | 0       | 0                | 0.0          |
| 18:05 - 18:10         | 0      | 0       | 0                | 0.0          |
| 18:10 - 18:15         | 0      | 0       | 0                | 0.0          |
| 18:15 - 18:20         | 0      | 0       | 0                | 0.0          |
| 18:20 - 18:25         | 0      | 0       | 0                | 0.0          |
| 18:25 - 18:30         | 0      | 0       | 0                | 0.0          |

|               |   |   |   |     |
|---------------|---|---|---|-----|
| 11:00 - 11:05 | 0 | 0 | 0 | 0.0 |
| 11:05 - 11:10 | 0 | 0 | 0 | 0.0 |
| 11:10 - 11:15 | 0 | 0 | 0 | 0.0 |
| 11:15 - 11:20 | 0 | 0 | 0 | 0.0 |
| 11:20 - 11:25 | 0 | 0 | 0 | 0.0 |
| 11:25 - 11:30 | 0 | 0 | 0 | 0.0 |
| 11:30 - 11:35 | 0 | 0 | 0 | 0.0 |
| 11:35 - 11:40 | 0 | 0 | 0 | 0.0 |
| 11:40 - 11:45 | 0 | 0 | 0 | 0.0 |
| 11:45 - 11:50 | 0 | 0 | 0 | 0.0 |
| 11:50 - 11:55 | 0 | 0 | 0 | 0.0 |
| 11:55 - 12:00 | 0 | 0 | 0 | 0.0 |
| 12:00 - 12:05 | 0 | 0 | 0 | 0.0 |
| 12:05 - 12:10 | 0 | 0 | 0 | 0.0 |
| 12:10 - 12:15 | 0 | 0 | 0 | 0.0 |
| 12:15 - 12:20 | 0 | 0 | 0 | 0.0 |
| 12:20 - 12:25 | 0 | 0 | 0 | 0.0 |
| 12:25 - 12:30 | 0 | 0 | 0 | 0.0 |
| 12:30 - 12:35 | 0 | 0 | 0 | 0.0 |
| 12:35 - 12:40 | 0 | 0 | 0 | 0.0 |
| 12:40 - 12:45 | 0 | 0 | 0 | 0.0 |
| 12:45 - 12:50 | 0 | 0 | 0 | 0.0 |
| 12:50 - 12:55 | 0 | 0 | 0 | 0.0 |
| 12:55 - 13:00 | 0 | 0 | 0 | 0.0 |
| 13:00 - 13:05 | 0 | 0 | 0 | 0.0 |
| 13:05 - 13:10 | 0 | 0 | 0 | 0.0 |
| 13:10 - 13:15 | 0 | 0 | 0 | 0.0 |
| 13:15 - 13:20 | 0 | 0 | 0 | 0.0 |
| 13:20 - 13:25 | 0 | 0 | 0 | 0.0 |
| 13:25 - 13:30 | 0 | 0 | 0 | 0.0 |
| 13:30 - 13:35 | 0 | 0 | 0 | 0.0 |
| 13:35 - 13:40 | 0 | 0 | 0 | 0.0 |
| 13:40 - 13:45 | 0 | 0 | 0 | 0.0 |
| 13:45 - 13:50 | 0 | 0 | 0 | 0.0 |
| 13:50 - 13:55 | 0 | 0 | 0 | 0.0 |
| 13:55 - 14:00 | 0 | 0 | 0 | 0.0 |

ARM: ASDA

| Max Queue in 5 minute | LANE 1 |         |                  |              | LANE 2 |         |                  |              |
|-----------------------|--------|---------|------------------|--------------|--------|---------|------------------|--------------|
|                       | LIGHTS | HEAVIES | QUEUE LENGTH (M) | %AGE HEAVIES | LIGHTS | HEAVIES | QUEUE LENGTH (M) | %AGE HEAVIES |
| 15:30 - 15:35         | 3      | 0       | 16.5             | 0.0          | 1      | 0       | 5.5              | 0.0          |
| 15:35 - 15:40         | 4      | 0       | 22               | 0.0          | 2      | 0       | 11               | 0.0          |
| 15:40 - 15:45         | 4      | 0       | 22               | 0.0          | 2      | 0       | 11               | 0.0          |
| 15:45 - 15:50         | 3      | 0       | 16.5             | 0.0          | 3      | 0       | 16.5             | 0.0          |
| 15:50 - 15:55         | 3      | 0       | 16.5             | 0.0          | 2      | 0       | 11               | 0.0          |
| 15:55 - 16:00         | 7      | 0       | 38.5             | 0.0          | 3      | 0       | 16.5             | 0.0          |
| 16:00 - 16:05         | 5      | 0       | 27.5             | 0.0          | 3      | 0       | 16.5             | 0.0          |
| 16:05 - 16:10         | 5      | 0       | 27.5             | 0.0          | 5      | 0       | 27.5             | 0.0          |
| 16:10 - 16:15         | 7      | 0       | 38.5             | 0.0          | 4      | 0       | 22               | 0.0          |
| 16:15 - 16:20         | 4      | 0       | 22               | 0.0          | 3      | 0       | 16.5             | 0.0          |
| 16:20 - 16:25         | 3      | 0       | 16.5             | 0.0          | 3      | 0       | 16.5             | 0.0          |
| 16:25 - 16:30         | 5      | 0       | 27.5             | 0.0          | 2      | 0       | 11               | 0.0          |
| 16:30 - 16:35         | 4      | 0       | 22               | 0.0          | 5      | 0       | 27.5             | 0.0          |
| 16:35 - 16:40         | 6      | 0       | 33               | 0.0          | 4      | 0       | 22               | 0.0          |
| 16:40 - 16:45         | 6      | 0       | 33               | 0.0          | 4      | 0       | 22               | 0.0          |
| 16:45 - 16:50         | 5      | 0       | 27.5             | 0.0          | 3      | 0       | 16.5             | 0.0          |
| 16:50 - 16:55         | 4      | 0       | 22               | 0.0          | 4      | 0       | 22               | 0.0          |
| 16:55 - 17:00         | 4      | 0       | 22               | 0.0          | 4      | 0       | 22               | 0.0          |
| 17:00 - 17:05         | 3      | 0       | 16.5             | 0.0          | 2      | 0       | 11               | 0.0          |
| 17:05 - 17:10         | 6      | 0       | 33               | 0.0          | 4      | 0       | 22               | 0.0          |
| 17:10 - 17:15         | 5      | 0       | 27.5             | 0.0          | 3      | 0       | 16.5             | 0.0          |
| 17:15 - 17:20         | 7      | 0       | 38.5             | 0.0          | 3      | 0       | 16.5             | 0.0          |
| 17:20 - 17:25         | 4      | 0       | 22               | 0.0          | 3      | 0       | 16.5             | 0.0          |
| 17:25 - 17:30         | 3      | 0       | 16.5             | 0.0          | 2      | 0       | 11               | 0.0          |
| 17:30 - 17:35         | 3      | 0       | 16.5             | 0.0          | 2      | 0       | 11               | 0.0          |
| 17:35 - 17:40         | 4      | 0       | 22               | 0.0          | 1      | 0       | 5.5              | 0.0          |
| 17:40 - 17:45         | 4      | 0       | 22               | 0.0          | 3      | 0       | 16.5             | 0.0          |
| 17:45 - 17:50         | 3      | 0       | 16.5             | 0.0          | 1      | 0       | 5.5              | 0.0          |
| 17:50 - 17:55         | 2      | 0       | 11               | 0.0          | 1      | 0       | 5.5              | 0.0          |
| 17:55 - 18:00         | 2      | 0       | 11               | 0.0          | 2      | 0       | 11               | 0.0          |
| 18:00 - 18:05         | 5      | 0       | 27.5             | 0.0          | 1      | 0       | 5.5              | 0.0          |
| 18:05 - 18:10         | 3      | 0       | 16.5             | 0.0          | 2      | 0       | 11               | 0.0          |
| 18:10 - 18:15         | 3      | 0       | 16.5             | 0.0          | 2      | 0       | 11               | 0.0          |
| 18:15 - 18:20         | 3      | 0       | 16.5             | 0.0          | 1      | 0       | 5.5              | 0.0          |
| 18:20 - 18:25         | 4      | 0       | 22               | 0.0          | 3      | 0       | 16.5             | 0.0          |
| 18:25 - 18:30         | 2      | 0       | 11               | 0.0          | 3      | 0       | 16.5             | 0.0          |

ARM: BODHYFRYD

| Max Queue in 5 minute | LANE 1 |         |                  |
|-----------------------|--------|---------|------------------|
|                       | LIGHTS | HEAVIES | QUEUE LENGTH (M) |
| 15:30 - 15:35         | 3      | 0       | 16.5             |
| 15:35 - 15:40         | 5      | 0       | 27.5             |
| 15:40 - 15:45         | 3      | 0       | 16.5             |
| 15:45 - 15:50         | 6      | 0       | 33               |
| 15:50 - 15:55         | 4      | 0       | 22               |
| 15:55 - 16:00         | 4      | 0       | 22               |
| 16:00 - 16:05         | 6      | 0       | 33               |
| 16:05 - 16:10         | 5      | 0       | 27.5             |
| 16:10 - 16:15         | 7      | 0       | 38.5             |
| 16:15 - 16:20         | 4      | 0       | 22               |
| 16:20 - 16:25         | 5      | 0       | 27.5             |
| 16:25 - 16:30         | 4      | 0       | 22               |
| 16:30 - 16:35         | 3      | 0       | 16.5             |
| 16:35 - 16:40         | 6      | 0       | 33               |
| 16:40 - 16:45         | 4      | 0       | 22               |
| 16:45 - 16:50         | 4      | 0       | 22               |
| 16:50 - 16:55         | 5      | 0       | 27.5             |
| 16:55 - 17:00         | 3      | 0       | 16.5             |
| 17:00 - 17:05         | 3      | 0       | 16.5             |
| 17:05 - 17:10         | 4      | 0       | 22               |
| 17:10 - 17:15         | 7      | 0       | 38.5             |
| 17:15 - 17:20         | 4      | 0       | 22               |
| 17:20 - 17:25         | 5      | 0       | 27.5             |
| 17:25 - 17:30         | 5      | 0       | 27.5             |
| 17:30 - 17:35         | 4      | 0       | 22               |
| 17:35 - 17:40         | 5      | 0       | 27.5             |
| 17:40 - 17:45         | 3      | 0       | 16.5             |
| 17:45 - 17:50         | 4      | 0       | 22               |
| 17:50 - 17:55         | 6      | 0       | 33               |
| 17:55 - 18:00         | 3      | 0       | 16.5             |
| 18:00 - 18:05         | 5      | 0       | 27.5             |
| 18:05 - 18:10         | 3      | 0       | 16.5             |
| 18:10 - 18:15         | 4      | 0       | 22               |
| 18:15 - 18:20         | 4      | 0       | 22               |
| 18:20 - 18:25         | 3      | 0       | 16.5             |
| 18:25 - 18:30         | 2      | 0       | 11               |

|               |   |   |      |     |   |   |      |     |
|---------------|---|---|------|-----|---|---|------|-----|
| 11:00 - 11:05 | 1 | 0 | 5.5  | 0.0 | 2 | 0 | 11   | 0.0 |
| 11:05 - 11:10 | 2 | 0 | 11   | 0.0 | 1 | 0 | 5.5  | 0.0 |
| 11:10 - 11:15 | 3 | 0 | 16.5 | 0.0 | 1 | 0 | 5.5  | 0.0 |
| 11:15 - 11:20 | 4 | 0 | 22   | 0.0 | 2 | 0 | 11   | 0.0 |
| 11:20 - 11:25 | 6 | 0 | 33   | 0.0 | 4 | 0 | 22   | 0.0 |
| 11:25 - 11:30 | 2 | 0 | 11   | 0.0 | 1 | 0 | 5.5  | 0.0 |
| 11:30 - 11:35 | 4 | 0 | 22   | 0.0 | 2 | 0 | 11   | 0.0 |
| 11:35 - 11:40 | 6 | 0 | 33   | 0.0 | 3 | 0 | 16.5 | 0.0 |
| 11:40 - 11:45 | 4 | 0 | 22   | 0.0 | 3 | 0 | 16.5 | 0.0 |
| 11:45 - 11:50 | 2 | 0 | 11   | 0.0 | 3 | 0 | 16.5 | 0.0 |
| 11:50 - 11:55 | 4 | 0 | 22   | 0.0 | 3 | 0 | 16.5 | 0.0 |
| 11:55 - 12:00 | 5 | 0 | 27.5 | 0.0 | 3 | 0 | 16.5 | 0.0 |
| 12:00 - 12:05 | 3 | 0 | 16.5 | 0.0 | 4 | 0 | 22   | 0.0 |
| 12:05 - 12:10 | 4 | 0 | 22   | 0.0 | 2 | 0 | 11   | 0.0 |
| 12:10 - 12:15 | 2 | 0 | 11   | 0.0 | 3 | 0 | 16.5 | 0.0 |
| 12:15 - 12:20 | 6 | 0 | 33   | 0.0 | 3 | 0 | 16.5 | 0.0 |
| 12:20 - 12:25 | 4 | 0 | 22   | 0.0 | 2 | 0 | 11   | 0.0 |
| 12:25 - 12:30 | 2 | 0 | 11   | 0.0 | 3 | 0 | 16.5 | 0.0 |
| 12:30 - 12:35 | 3 | 0 | 16.5 | 0.0 | 3 | 0 | 16.5 | 0.0 |
| 12:35 - 12:40 | 2 | 0 | 11   | 0.0 | 3 | 0 | 16.5 | 0.0 |
| 12:40 - 12:45 | 2 | 0 | 11   | 0.0 | 3 | 0 | 16.5 | 0.0 |
| 12:45 - 12:50 | 9 | 0 | 49.5 | 0.0 | 4 | 0 | 22   | 0.0 |
| 12:50 - 12:55 | 6 | 0 | 33   | 0.0 | 4 | 0 | 22   | 0.0 |
| 12:55 - 13:00 | 2 | 0 | 11   | 0.0 | 3 | 0 | 16.5 | 0.0 |
| 13:00 - 13:05 | 2 | 0 | 11   | 0.0 | 2 | 0 | 11   | 0.0 |
| 13:05 - 13:10 | 3 | 0 | 16.5 | 0.0 | 1 | 0 | 5.5  | 0.0 |
| 13:10 - 13:15 | 5 | 0 | 27.5 | 0.0 | 1 | 0 | 5.5  | 0.0 |
| 13:15 - 13:20 | 2 | 0 | 11   | 0.0 | 2 | 0 | 11   | 0.0 |
| 13:20 - 13:25 | 4 | 0 | 22   | 0.0 | 3 | 0 | 16.5 | 0.0 |
| 13:25 - 13:30 | 3 | 0 | 16.5 | 0.0 | 2 | 0 | 11   | 0.0 |
| 13:30 - 13:35 | 6 | 0 | 33   | 0.0 | 1 | 0 | 5.5  | 0.0 |
| 13:35 - 13:40 | 3 | 0 | 16.5 | 0.0 | 4 | 0 | 22   | 0.0 |
| 13:40 - 13:45 | 2 | 0 | 11   | 0.0 | 1 | 0 | 5.5  | 0.0 |
| 13:45 - 13:50 | 2 | 0 | 11   | 0.0 | 2 | 0 | 11   | 0.0 |
| 13:50 - 13:55 | 3 | 0 | 16.5 | 0.0 | 1 | 0 | 5.5  | 0.0 |
| 13:55 - 14:00 | 2 | 0 | 11   | 0.0 | 2 | 0 | 11   | 0.0 |

|               |   |   |      |
|---------------|---|---|------|
| 11:00 - 11:05 | 2 | 0 | 11   |
| 11:05 - 11:10 | 3 | 0 | 16.5 |
| 11:10 - 11:15 | 3 | 0 | 16.5 |
| 11:15 - 11:20 | 4 | 0 | 22   |
| 11:20 - 11:25 | 2 | 0 | 11   |
| 11:25 - 11:30 | 4 | 0 | 22   |
| 11:30 - 11:35 | 5 | 0 | 27.5 |
| 11:35 - 11:40 | 2 | 0 | 11   |
| 11:40 - 11:45 | 2 | 0 | 11   |
| 11:45 - 11:50 | 3 | 1 | 31.5 |
| 11:50 - 11:55 | 3 | 0 | 16.5 |
| 11:55 - 12:00 | 7 | 0 | 38.5 |
| 12:00 - 12:05 | 3 | 0 | 16.5 |
| 12:05 - 12:10 | 3 | 0 | 16.5 |
| 12:10 - 12:15 | 3 | 0 | 16.5 |
| 12:15 - 12:20 | 2 | 0 | 11   |
| 12:20 - 12:25 | 2 | 0 | 11   |
| 12:25 - 12:30 | 4 | 0 | 22   |
| 12:30 - 12:35 | 7 | 0 | 38.5 |
| 12:35 - 12:40 | 5 | 0 | 27.5 |
| 12:40 - 12:45 | 4 | 0 | 22   |
| 12:45 - 12:50 | 4 | 0 | 22   |
| 12:50 - 12:55 | 1 | 0 | 5.5  |
| 12:55 - 13:00 | 3 | 0 | 16.5 |
| 13:00 - 13:05 | 4 | 0 | 22   |
| 13:05 - 13:10 | 1 | 0 | 5.5  |
| 13:10 - 13:15 | 6 | 0 | 33   |
| 13:15 - 13:20 | 3 | 0 | 16.5 |
| 13:20 - 13:25 | 3 | 0 | 16.5 |
| 13:25 - 13:30 | 4 | 1 | 37   |
| 13:30 - 13:35 | 3 | 0 | 16.5 |
| 13:35 - 13:40 | 3 | 0 | 16.5 |
| 13:40 - 13:45 | 3 | 0 | 16.5 |
| 13:45 - 13:50 | 2 | 1 | 26   |
| 13:50 - 13:55 | 1 | 0 | 5.5  |
| 13:55 - 14:00 | 5 | 0 | 27.5 |

ARM: POLICE STATION

|                 | LANE 2 |         |                     |                 |
|-----------------|--------|---------|---------------------|-----------------|
| %AGE<br>HEAVIES | LIGHTS | HEAVIES | QUEUE<br>LENGTH (M) | %AGE<br>HEAVIES |
| 0.0             | 3      | 0       | 16.5                | 0.0             |
| 0.0             | 4      | 0       | 22                  | 0.0             |
| 0.0             | 3      | 0       | 16.5                | 0.0             |
| 0.0             | 3      | 0       | 16.5                | 0.0             |
| 0.0             | 3      | 0       | 16.5                | 0.0             |
| 0.0             | 4      | 0       | 22                  | 0.0             |
| 0.0             | 3      | 0       | 16.5                | 0.0             |
| 0.0             | 3      | 0       | 16.5                | 0.0             |
| 0.0             | 5      | 0       | 27.5                | 0.0             |
| 0.0             | 4      | 0       | 22                  | 0.0             |
| 0.0             | 2      | 0       | 11                  | 0.0             |
| 0.0             | 3      | 0       | 16.5                | 0.0             |
| 0.0             | 3      | 0       | 16.5                | 0.0             |
| 0.0             | 3      | 0       | 16.5                | 0.0             |
| 0.0             | 2      | 0       | 11                  | 0.0             |
| 0.0             | 4      | 0       | 22                  | 0.0             |
| 0.0             | 3      | 0       | 16.5                | 0.0             |
| 0.0             | 1      | 0       | 5.5                 | 0.0             |
| 0.0             | 3      | 0       | 16.5                | 0.0             |
| 0.0             | 2      | 0       | 11                  | 0.0             |
| 0.0             | 3      | 0       | 16.5                | 0.0             |
| 0.0             | 2      | 0       | 11                  | 0.0             |
| 0.0             | 2      | 0       | 11                  | 0.0             |
| 0.0             | 3      | 0       | 16.5                | 0.0             |
| 0.0             | 4      | 0       | 22                  | 0.0             |
| 0.0             | 3      | 0       | 16.5                | 0.0             |
| 0.0             | 1      | 0       | 5.5                 | 0.0             |
| 0.0             | 2      | 0       | 11                  | 0.0             |
| 0.0             | 2      | 0       | 11                  | 0.0             |
| 0.0             | 3      | 0       | 16.5                | 0.0             |
| 0.0             | 2      | 0       | 11                  | 0.0             |
| 0.0             | 1      | 0       | 5.5                 | 0.0             |
| 0.0             | 2      | 0       | 11                  | 0.0             |
| 0.0             | 2      | 0       | 11                  | 0.0             |
| 0.0             | 1      | 0       | 5.5                 | 0.0             |
| 0.0             | 1      | 0       | 5.5                 | 0.0             |

| Max Queue in 5<br>minute | LANE 1 |         |                     |                 |
|--------------------------|--------|---------|---------------------|-----------------|
|                          | LIGHTS | HEAVIES | QUEUE<br>LENGTH (M) | %AGE<br>HEAVIES |
| 15:30 - 15:35            | 1      | 0       | 5.5                 | 0.0             |
| 15:35 - 15:40            | 0      | 0       | 0                   | 0.0             |
| 15:40 - 15:45            | 0      | 0       | 0                   | 0.0             |
| 15:45 - 15:50            | 3      | 0       | 16.5                | 0.0             |
| 15:50 - 15:55            | 0      | 0       | 0                   | 0.0             |
| 15:55 - 16:00            | 1      | 0       | 5.5                 | 0.0             |
| 16:00 - 16:05            | 2      | 0       | 11                  | 0.0             |
| 16:05 - 16:10            | 2      | 0       | 11                  | 0.0             |
| 16:10 - 16:15            | 2      | 0       | 11                  | 0.0             |
| 16:15 - 16:20            | 1      | 0       | 5.5                 | 0.0             |
| 16:20 - 16:25            | 1      | 0       | 5.5                 | 0.0             |
| 16:25 - 16:30            | 0      | 0       | 0                   | 0.0             |
| 16:30 - 16:35            | 2      | 0       | 11                  | 0.0             |
| 16:35 - 16:40            | 1      | 0       | 5.5                 | 0.0             |
| 16:40 - 16:45            | 1      | 0       | 5.5                 | 0.0             |
| 16:45 - 16:50            | 3      | 0       | 16.5                | 0.0             |
| 16:50 - 16:55            | 1      | 0       | 5.5                 | 0.0             |
| 16:55 - 17:00            | 0      | 0       | 0                   | 0.0             |
| 17:00 - 17:05            | 1      | 0       | 5.5                 | 0.0             |
| 17:05 - 17:10            | 1      | 0       | 5.5                 | 0.0             |
| 17:10 - 17:15            | 1      | 0       | 5.5                 | 0.0             |
| 17:15 - 17:20            | 3      | 0       | 16.5                | 0.0             |
| 17:20 - 17:25            | 1      | 0       | 5.5                 | 0.0             |
| 17:25 - 17:30            | 1      | 0       | 5.5                 | 0.0             |
| 17:30 - 17:35            | 0      | 0       | 0                   | 0.0             |
| 17:35 - 17:40            | 0      | 0       | 0                   | 0.0             |
| 17:40 - 17:45            | 1      | 0       | 5.5                 | 0.0             |
| 17:45 - 17:50            | 0      | 0       | 0                   | 0.0             |
| 17:50 - 17:55            | 2      | 0       | 11                  | 0.0             |
| 17:55 - 18:00            | 1      | 0       | 5.5                 | 0.0             |
| 18:00 - 18:05            | 0      | 0       | 0                   | 0.0             |
| 18:05 - 18:10            | 1      | 0       | 5.5                 | 0.0             |
| 18:10 - 18:15            | 0      | 0       | 0                   | 0.0             |
| 18:15 - 18:20            | 0      | 0       | 0                   | 0.0             |
| 18:20 - 18:25            | 0      | 0       | 0                   | 0.0             |
| 18:25 - 18:30            | 0      | 0       | 0                   | 0.0             |

|      |   |   |      |     |
|------|---|---|------|-----|
| 0.0  | 1 | 0 | 5.5  | 0.0 |
| 0.0  | 1 | 0 | 5.5  | 0.0 |
| 0.0  | 1 | 0 | 5.5  | 0.0 |
| 0.0  | 2 | 0 | 11   | 0.0 |
| 0.0  | 1 | 0 | 5.5  | 0.0 |
| 0.0  | 3 | 0 | 16.5 | 0.0 |
| 0.0  | 3 | 0 | 16.5 | 0.0 |
| 0.0  | 4 | 0 | 22   | 0.0 |
| 0.0  | 2 | 0 | 11   | 0.0 |
| 25.0 | 2 | 0 | 11   | 0.0 |
| 0.0  | 2 | 0 | 11   | 0.0 |
| 0.0  | 3 | 0 | 16.5 | 0.0 |
| 0.0  | 3 | 0 | 16.5 | 0.0 |
| 0.0  | 1 | 0 | 5.5  | 0.0 |
| 0.0  | 4 | 0 | 22   | 0.0 |
| 0.0  | 5 | 0 | 27.5 | 0.0 |
| 0.0  | 4 | 0 | 22   | 0.0 |
| 0.0  | 2 | 0 | 11   | 0.0 |
| 0.0  | 2 | 0 | 11   | 0.0 |
| 0.0  | 3 | 0 | 16.5 | 0.0 |
| 0.0  | 3 | 0 | 16.5 | 0.0 |
| 0.0  | 2 | 0 | 11   | 0.0 |
| 0.0  | 3 | 0 | 16.5 | 0.0 |
| 0.0  | 1 | 0 | 5.5  | 0.0 |
| 0.0  | 2 | 0 | 11   | 0.0 |
| 0.0  | 6 | 0 | 33   | 0.0 |
| 0.0  | 3 | 0 | 16.5 | 0.0 |
| 0.0  | 2 | 0 | 11   | 0.0 |
| 0.0  | 3 | 0 | 16.5 | 0.0 |
| 20.0 | 3 | 0 | 16.5 | 0.0 |
| 0.0  | 3 | 0 | 16.5 | 0.0 |
| 0.0  | 3 | 0 | 16.5 | 0.0 |
| 0.0  | 2 | 0 | 11   | 0.0 |
| 33.3 | 1 | 0 | 5.5  | 0.0 |
| 0.0  | 1 | 0 | 5.5  | 0.0 |
| 0.0  | 1 | 0 | 5.5  | 0.0 |

|               |   |   |     |     |
|---------------|---|---|-----|-----|
| 11:00 - 11:05 | 0 | 0 | 0   | 0.0 |
| 11:05 - 11:10 | 0 | 0 | 0   | 0.0 |
| 11:10 - 11:15 | 0 | 0 | 0   | 0.0 |
| 11:15 - 11:20 | 0 | 0 | 0   | 0.0 |
| 11:20 - 11:25 | 0 | 0 | 0   | 0.0 |
| 11:25 - 11:30 | 0 | 0 | 0   | 0.0 |
| 11:30 - 11:35 | 1 | 0 | 5.5 | 0.0 |
| 11:35 - 11:40 | 0 | 0 | 0   | 0.0 |
| 11:40 - 11:45 | 0 | 0 | 0   | 0.0 |
| 11:45 - 11:50 | 0 | 0 | 0   | 0.0 |
| 11:50 - 11:55 | 0 | 0 | 0   | 0.0 |
| 11:55 - 12:00 | 0 | 0 | 0   | 0.0 |
| 12:00 - 12:05 | 0 | 0 | 0   | 0.0 |
| 12:05 - 12:10 | 0 | 0 | 0   | 0.0 |
| 12:10 - 12:15 | 0 | 0 | 0   | 0.0 |
| 12:15 - 12:20 | 1 | 0 | 5.5 | 0.0 |
| 12:20 - 12:25 | 1 | 0 | 5.5 | 0.0 |
| 12:25 - 12:30 | 0 | 0 | 0   | 0.0 |
| 12:30 - 12:35 | 0 | 0 | 0   | 0.0 |
| 12:35 - 12:40 | 0 | 0 | 0   | 0.0 |
| 12:40 - 12:45 | 0 | 0 | 0   | 0.0 |
| 12:45 - 12:50 | 0 | 0 | 0   | 0.0 |
| 12:50 - 12:55 | 0 | 0 | 0   | 0.0 |
| 12:55 - 13:00 | 0 | 0 | 0   | 0.0 |
| 13:00 - 13:05 | 0 | 0 | 0   | 0.0 |
| 13:05 - 13:10 | 1 | 0 | 5.5 | 0.0 |
| 13:10 - 13:15 | 1 | 0 | 5.5 | 0.0 |
| 13:15 - 13:20 | 0 | 0 | 0   | 0.0 |
| 13:20 - 13:25 | 0 | 0 | 0   | 0.0 |
| 13:25 - 13:30 | 0 | 0 | 0   | 0.0 |
| 13:30 - 13:35 | 0 | 0 | 0   | 0.0 |
| 13:35 - 13:40 | 0 | 0 | 0   | 0.0 |
| 13:40 - 13:45 | 0 | 0 | 0   | 0.0 |
| 13:45 - 13:50 | 0 | 0 | 0   | 0.0 |
| 13:50 - 13:55 | 0 | 0 | 0   | 0.0 |
| 13:55 - 14:00 | 0 | 0 | 0   | 0.0 |

Manual Classified Turning Counts, Wrexham

DATE: TUESDAY 20th MARCH 2018

LOCATION: POWELL ROAD / SCHOOL / ASDA/ BODHYFRYD / POLICE STATION

ARM: POWELL ROAD

| TIME / CLASS  | LEFT TO SCHOOL |             |          |     |       |       |       | STRAIGHT TO ASDA |             |          |     |       |       |           | RIGHT TO BODHYFRYD |             |             |          |     |       |       | RIGHT TO POLICE STATION |       |             |             |          |     |
|---------------|----------------|-------------|----------|-----|-------|-------|-------|------------------|-------------|----------|-----|-------|-------|-----------|--------------------|-------------|-------------|----------|-----|-------|-------|-------------------------|-------|-------------|-------------|----------|-----|
|               | PEDAL CYCLE    | MOTOR CYCLE | CAR TAXI | LGV | OGV 1 | OGV 2 | TOTAL | PEDAL CYCLE      | MOTOR CYCLE | CAR TAXI | LGV | OGV 1 | OGV 2 | BUS COACH | TOTAL              | PEDAL CYCLE | MOTOR CYCLE | CAR TAXI | LGV | OGV 1 | OGV 2 | BUS COACH               | TOTAL | PEDAL CYCLE | MOTOR CYCLE | CAR TAXI | LGV |
| 15:30 - 15:45 | 0              | 0           | 5        | 0   | 0     | 0     | 5     | 0                | 0           | 54       | 3   | 0     | 0     | 0         | 57                 | 0           | 0           | 134      | 15  | 0     | 0     | 0                       | 149   | 0           | 0           | 0        | 0   |
| 15:45 - 16:00 | 0              | 0           | 1        | 0   | 0     | 0     | 1     | 0                | 0           | 43       | 4   | 0     | 0     | 0         | 47                 | 1           | 0           | 144      | 12  | 0     | 1     | 1                       | 159   | 0           | 0           | 0        | 0   |
| 16:00 - 16:15 | 0              | 0           | 4        | 0   | 0     | 0     | 4     | 0                | 0           | 46       | 3   | 0     | 0     | 0         | 49                 | 1           | 1           | 126      | 14  | 1     | 0     | 0                       | 143   | 0           | 0           | 1        | 0   |
| 16:15 - 16:30 | 0              | 0           | 0        | 0   | 0     | 0     | 0     | 0                | 0           | 60       | 3   | 0     | 0     | 0         | 63                 | 0           | 0           | 112      | 15  | 1     | 1     | 1                       | 130   | 0           | 0           | 0        | 0   |
| HOURLY TOTAL  | 0              | 0           | 10       | 0   | 0     | 0     | 10    | 0                | 0           | 203      | 13  | 0     | 0     | 0         | 216                | 2           | 1           | 516      | 56  | 2     | 2     | 2                       | 581   | 0           | 0           | 1        | 0   |
| 16:30 - 16:45 | 0              | 0           | 0        | 0   | 0     | 0     | 0     | 0                | 0           | 46       | 1   | 0     | 0     | 0         | 47                 | 0           | 0           | 139      | 11  | 0     | 0     | 2                       | 152   | 0           | 0           | 0        | 1   |
| 16:45 - 17:00 | 0              | 0           | 2        | 0   | 0     | 0     | 2     | 0                | 0           | 36       | 4   | 0     | 0     | 0         | 40                 | 0           | 0           | 126      | 10  | 0     | 1     | 3                       | 140   | 0           | 0           | 1        | 0   |
| 17:00 - 17:15 | 0              | 0           | 1        | 0   | 0     | 0     | 1     | 0                | 0           | 51       | 5   | 0     | 0     | 0         | 56                 | 0           | 2           | 132      | 6   | 0     | 1     | 1                       | 142   | 0           | 0           | 0        | 0   |
| 17:15 - 17:30 | 0              | 0           | 2        | 0   | 0     | 0     | 2     | 0                | 0           | 52       | 0   | 0     | 0     | 0         | 52                 | 0           | 1           | 134      | 15  | 0     | 0     | 0                       | 150   | 0           | 0           | 1        | 0   |
| HOURLY TOTAL  | 0              | 0           | 5        | 0   | 0     | 0     | 5     | 0                | 0           | 185      | 10  | 0     | 0     | 0         | 195                | 0           | 3           | 531      | 42  | 0     | 2     | 6                       | 584   | 0           | 0           | 2        | 1   |
| 17:30 - 17:45 | 0              | 0           | 1        | 0   | 0     | 0     | 1     | 0                | 0           | 41       | 0   | 0     | 0     | 0         | 41                 | 1           | 0           | 130      | 14  | 0     | 0     | 0                       | 145   | 0           | 0           | 0        | 0   |
| 17:45 - 18:00 | 0              | 0           | 0        | 0   | 0     | 0     | 0     | 0                | 0           | 51       | 0   | 0     | 0     | 0         | 51                 | 0           | 0           | 148      | 12  | 0     | 0     | 0                       | 160   | 0           | 0           | 2        | 0   |
| 18:00 - 18:15 | 0              | 0           | 0        | 0   | 0     | 0     | 0     | 0                | 0           | 57       | 1   | 0     | 0     | 0         | 58                 | 0           | 0           | 114      | 11  | 0     | 0     | 0                       | 125   | 0           | 0           | 0        | 0   |
| 18:15 - 18:30 | 0              | 0           | 0        | 0   | 0     | 0     | 0     | 0                | 0           | 52       | 2   | 0     | 0     | 0         | 54                 | 0           | 1           | 126      | 8   | 0     | 0     | 0                       | 135   | 0           | 0           | 0        | 0   |
| HOURLY TOTAL  | 0              | 0           | 1        | 0   | 0     | 0     | 1     | 0                | 0           | 201      | 3   | 0     | 0     | 0         | 204                | 1           | 1           | 518      | 45  | 0     | 0     | 0                       | 565   | 0           | 0           | 2        | 0   |
| PERIOD TOTAL  | 0              | 0           | 16       | 0   | 0     | 0     | 16    | 0                | 0           | 589      | 26  | 0     | 0     | 0         | 615                | 3           | 5           | 1565     | 143 | 2     | 4     | 8                       | 1730  | 0           | 0           | 5        | 1   |

DATE: SATURDAY 24th MARCH 2018

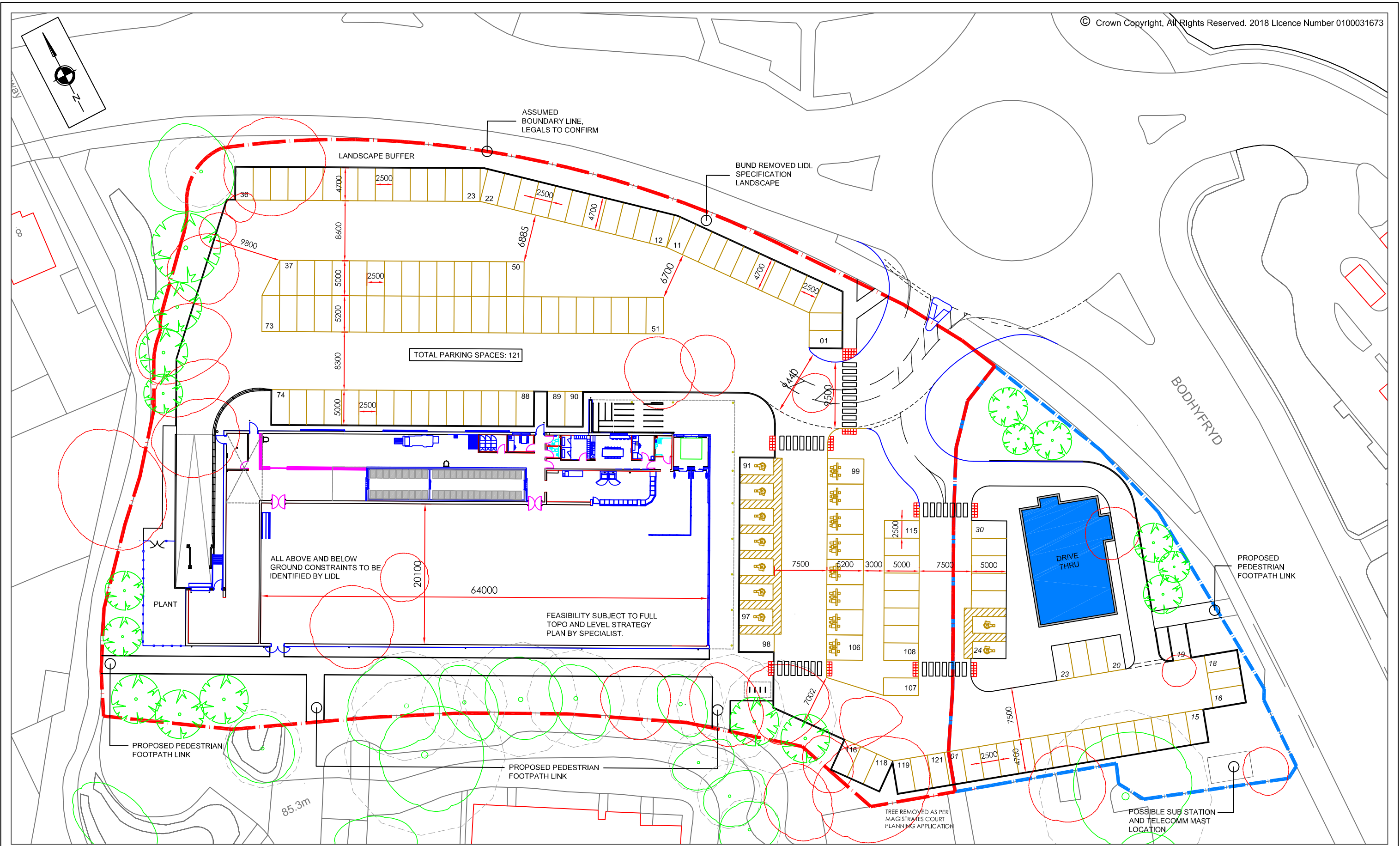
|               |   |   |   |   |   |   |   |   |   |     |   |   |   |   |     |   |   |      |     |   |   |   |      |   |   |   |   |   |
|---------------|---|---|---|---|---|---|---|---|---|-----|---|---|---|---|-----|---|---|------|-----|---|---|---|------|---|---|---|---|---|
| 11:00 - 11:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 77  | 0 | 0 | 0 | 0 | 77  | 0 | 0 | 108  | 10  | 0 | 0 | 0 | 118  | 0 | 0 | 0 | 1 | 0 |
| 11:15 - 11:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 88  | 0 | 0 | 0 | 0 | 88  | 0 | 0 | 145  | 14  | 0 | 0 | 0 | 159  | 0 | 0 | 0 | 0 | 0 |
| 11:30 - 11:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 83  | 0 | 0 | 0 | 0 | 84  | 0 | 0 | 99   | 15  | 0 | 0 | 0 | 114  | 0 | 0 | 0 | 0 | 0 |
| 11:45 - 12:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 92  | 1 | 0 | 0 | 0 | 93  | 0 | 0 | 136  | 12  | 0 | 0 | 0 | 148  | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 340 | 1 | 0 | 0 | 0 | 342 | 0 | 0 | 488  | 51  | 0 | 0 | 0 | 539  | 0 | 0 | 1 | 0 | 0 |
| 12:00 - 12:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 76  | 1 | 0 | 0 | 0 | 77  | 0 | 0 | 125  | 17  | 0 | 0 | 0 | 142  | 0 | 0 | 0 | 0 | 0 |
| 12:15 - 12:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 71  | 0 | 0 | 1 | 0 | 72  | 0 | 0 | 120  | 19  | 0 | 0 | 0 | 139  | 0 | 0 | 0 | 0 | 0 |
| 12:30 - 12:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 84  | 1 | 0 | 0 | 0 | 85  | 0 | 0 | 108  | 19  | 0 | 0 | 0 | 127  | 0 | 0 | 1 | 0 | 0 |
| 12:45 - 13:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 86  | 2 | 0 | 0 | 0 | 90  | 0 | 0 | 111  | 23  | 1 | 0 | 2 | 137  | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 317 | 4 | 0 | 1 | 0 | 324 | 0 | 0 | 464  | 78  | 1 | 0 | 2 | 545  | 0 | 0 | 1 | 0 | 0 |
| 13:00 - 13:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 79  | 1 | 0 | 0 | 0 | 80  | 0 | 0 | 84   | 14  | 0 | 1 | 1 | 100  | 0 | 0 | 0 | 0 | 0 |
| 13:15 - 13:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 72  | 0 | 0 | 0 | 0 | 72  | 0 | 0 | 88   | 11  | 0 | 0 | 0 | 99   | 0 | 0 | 1 | 0 | 0 |
| 13:30 - 13:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 84  | 0 | 0 | 0 | 0 | 84  | 0 | 0 | 120  | 14  | 0 | 0 | 0 | 134  | 0 | 0 | 1 | 0 | 0 |
| 13:45 - 14:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80  | 1 | 0 | 0 | 0 | 81  | 0 | 0 | 106  | 10  | 0 | 0 | 0 | 116  | 0 | 0 | 0 | 0 | 0 |
| HOURLY TOTAL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 315 | 2 | 0 | 0 | 0 | 317 | 0 | 0 | 398  | 49  | 0 | 1 | 1 | 449  | 0 | 0 | 2 | 0 | 0 |
| PERIOD TOTAL  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 972 | 7 | 0 | 1 | 0 | 983 | 0 | 0 | 1350 | 178 | 1 | 1 | 3 | 1533 | 0 | 0 | 4 | 0 | 0 |



[illegible]

**S|C|P**

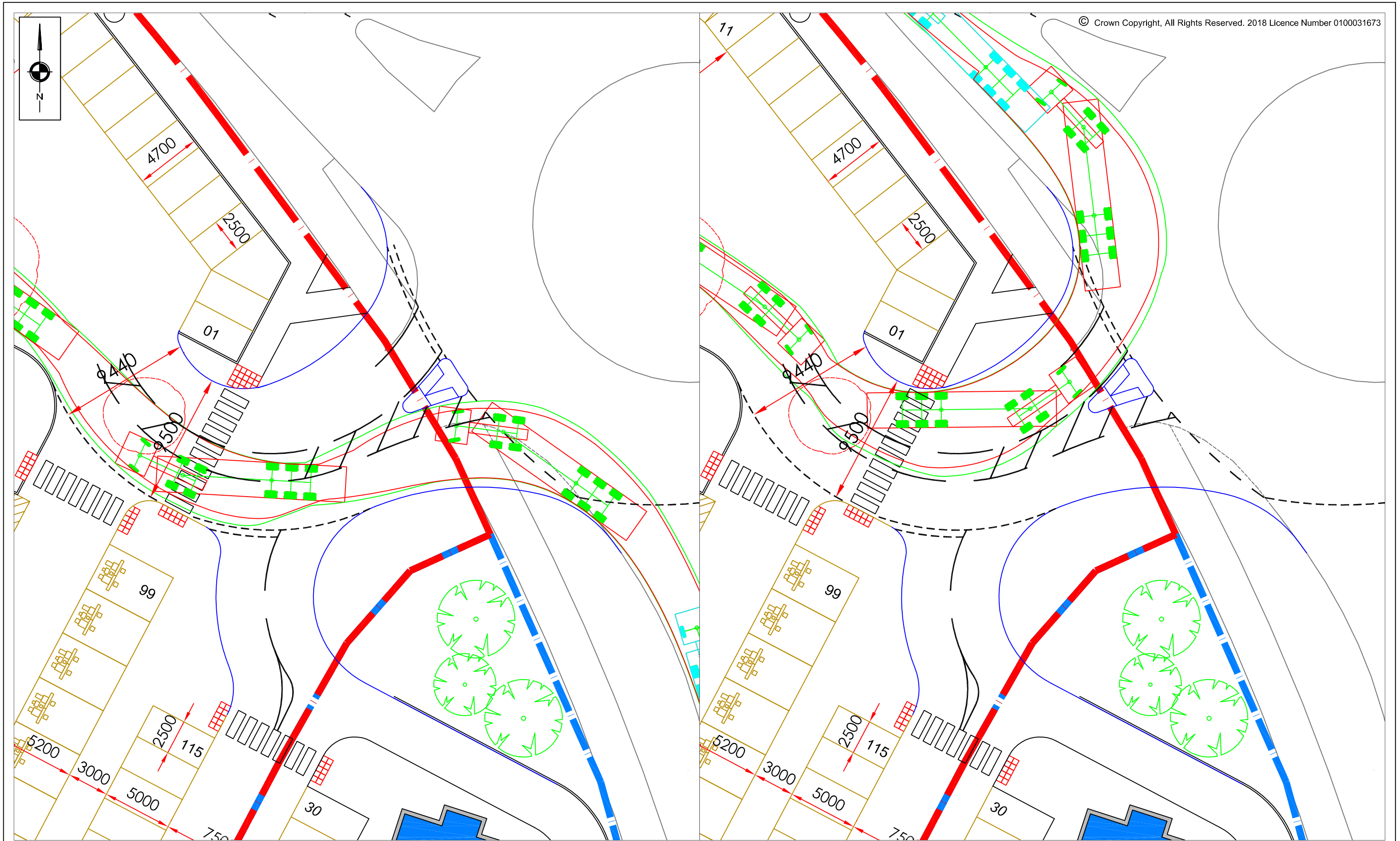
## **APPENDIX 2**



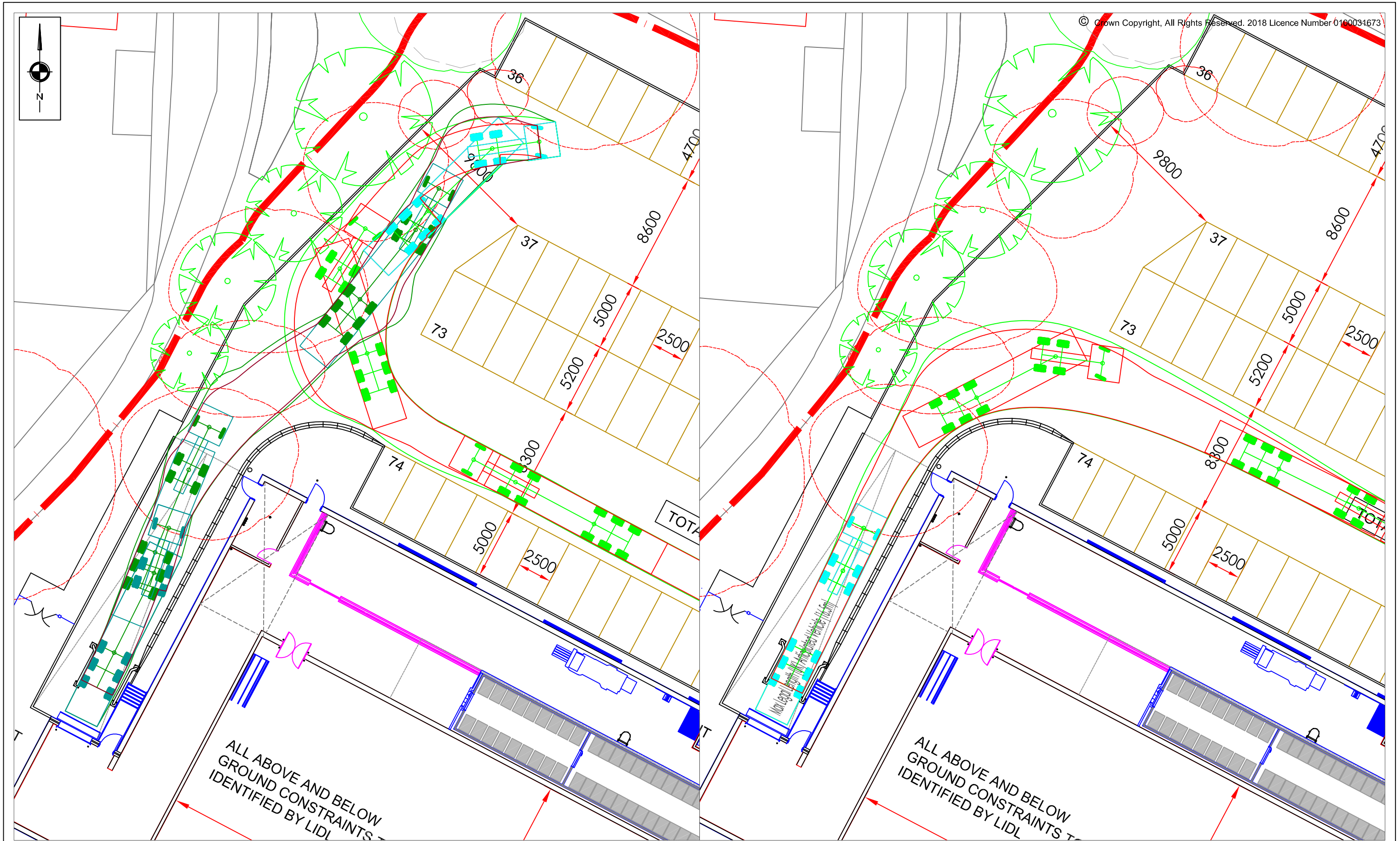
|                                                                                                                                                                                                                   |                                                               |                                               |                                       |                    |     |             |      |    |                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|-----------------------------------------------|---------------------------------------|--------------------|-----|-------------|------|----|-----------------------------------|
| <div><div>S C P</div><div>Transportation Planning : Infrastructure Design</div><div>31 Southampton Row, London, WC1B 5HJ, Tel 020 3376 6660<br/>www.scptransport.co.uk, Email info@scptransport.co.uk</div></div> | Project Title<br><br>NEW LIDL, WREXHAM POLICE<br>STATION SITE | Drawing Title<br><br>PROPOSED ACCESS SOLUTION | Scale<br>1:500 @ A3                   | By<br>CAD          | Rev | Description | Date | By | Drawing No.<br><br>SCP/18111/SK01 |
|                                                                                                                                                                                                                   |                                                               |                                               | Date<br>05.06.18                      | Checked<br>JRB     | -   | -           | -    | -  |                                   |
|                                                                                                                                                                                                                   |                                                               |                                               | Approved/<br>Unapproved<br>UNAPPROVED | Status<br>PLANNING | -   | -           | -    | -  | Revision<br><br>-                 |
|                                                                                                                                                                                                                   |                                                               |                                               |                                       |                    | -   | -           | -    | -  |                                   |

**S|C|P**

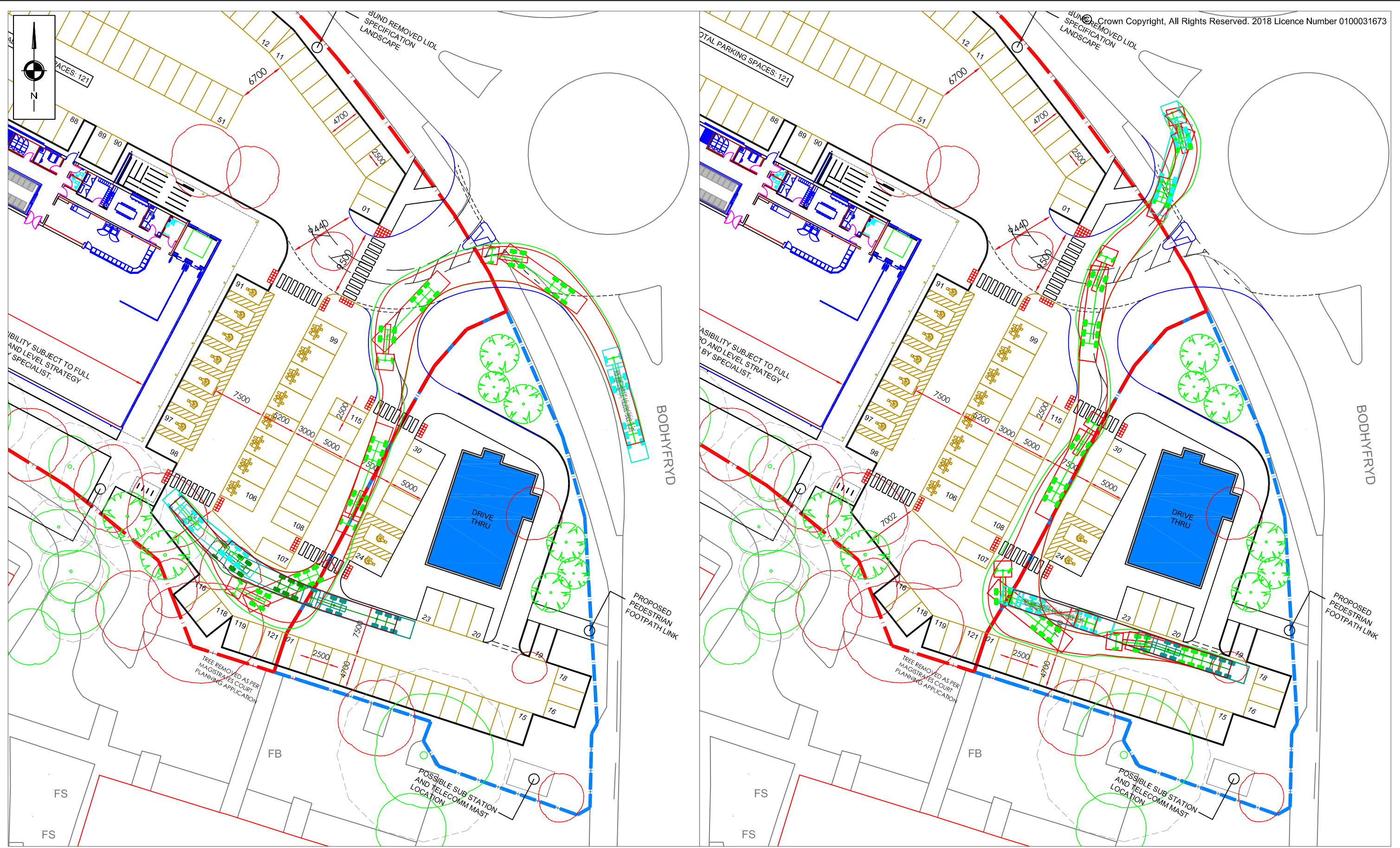
## **APPENDIX 3**



|                                                                                                                                                                                                                   |                                                               |                                                                                           |                                       |                    |     |             |      |    |                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------|--------------------|-----|-------------|------|----|-------------------|
| <div><div>S C P</div><div>Transportation Planning : Infrastructure Design</div><div>31 Southampton Row, London, WC1B 5HJ, Tel 020 3376 6660<br/>www.scptransport.co.uk, Email info@scptransport.co.uk</div></div> | Project Title<br><br>NEW LIDL, WREXHAM POLICE<br>STATION SITE | Drawing Title<br><br>MAX. LEGAL ARTICULATED<br>HGV SWEPT PATHS AT<br>PROPOSED SITE ACCESS | Scale<br>1:250 @ A3                   | By<br>CAD          | Rev | Description | Date | By | Drawing No.       |
|                                                                                                                                                                                                                   |                                                               |                                                                                           | Date<br>05.06.18                      | Checked<br>JRB     | -   | -           | -    | -  | SCP/18111/ATRSK01 |
|                                                                                                                                                                                                                   |                                                               |                                                                                           | Approved/<br>Unapproved<br>UNAPPROVED | Status<br>PLANNING | -   | -           | -    | -  | Revision          |
|                                                                                                                                                                                                                   |                                                               |                                                                                           |                                       |                    | -   | -           | -    | -  | -                 |



|                                                                                                                                                                                                                 |                                                               |                                                                                  |                                       |                    |     |             |      |    |                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|----------------------------------------------------------------------------------|---------------------------------------|--------------------|-----|-------------|------|----|-------------------|
| <div><div>SCP</div><div>Transportation Planning : Infrastructure Design</div><div>31 Southampton Row, London, WC1B 5HJ, Tel 020 3376 6660<br/>www.scptransport.co.uk, Email info@scptransport.co.uk</div></div> | Project Title<br><br>NEW LIDL, WREXHAM POLICE<br>STATION SITE | Drawing Title<br><br>MAX. LEGAL ARTICULATED<br>HGV SWEEP PATHS AT<br>LOADING BAY | Scale<br>1:250 @ A3                   | By<br>CAD          | Rev | Description | Date | By | Drawing No.       |
|                                                                                                                                                                                                                 |                                                               |                                                                                  | Date<br>05.06.18                      | Checked<br>JRB     | -   | -           | -    | -  | SCP/18111/ATRSK02 |
|                                                                                                                                                                                                                 |                                                               |                                                                                  | Approved/<br>Unapproved<br>UNAPPROVED | Status<br>PLANNING | -   | -           | -    | -  | Revision          |
|                                                                                                                                                                                                                 |                                                               |                                                                                  |                                       |                    | -   | -           | -    | -  | -                 |



SCP

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|                                       |                                                      |                                |                 |     |             |      |    |                   |
|---------------------------------------|------------------------------------------------------|--------------------------------|-----------------|-----|-------------|------|----|-------------------|
| Project Title                         | Drawing Title                                        | Scale                          | By              | Rev | Description | Date | By | Drawing No.       |
| NEW LIDL, WREXHAM POLICE STATION SITE | MAX. LEGAL ARTICULATED HGV SWEEP PATHS AT DRIVE-THRU | 1:500 @ A3                     | CAD             | -   | -           | -    | -  | SCP/18111/ATRSK03 |
|                                       |                                                      | Date 05.06.18                  | Checked JRB     | -   | -           | -    | -  |                   |
|                                       |                                                      | Approved/Unapproved UNAPPROVED | Status PLANNING | -   | -           | -    | -  | Revision          |
|                                       |                                                      |                                |                 | -   | -           | -    | -  | -                 |

**S|C|P**

## **APPENDIX 4**

Calculation Reference: AUDIT-726001-170613-0618

**TRIP RATE CALCULATION SELECTION PARAMETERS:**

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

**VEHICLES**Selected regions and areas:

|           |                      |        |
|-----------|----------------------|--------|
| <b>05</b> | <b>EAST MIDLANDS</b> |        |
|           | LN LINCOLNSHIRE      | 1 days |
|           | NR NORTHAMPTONSHIRE  | 1 days |
|           | NT NOTTINGHAMSHIRE   | 1 days |
| <b>06</b> | <b>WEST MIDLANDS</b> |        |
|           | WM WEST MIDLANDS     | 2 days |
|           | WO WORCESTERSHIRE    | 1 days |

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

**Secondary 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: Retail floor area  
 Actual Range: 1341 to 1424 (units: sqm)  
 Range Selected by User: 600 to 1424 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/16 to 19/07/16

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

Selected survey days:

|           |        |
|-----------|--------|
| Tuesday   | 4 days |
| Wednesday | 1 days |
| Friday    | 1 days |

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

Selected survey types:

|                       |        |
|-----------------------|--------|
| Manual count          | 6 days |
| Directional ATC Count | 0 days |

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

Selected Locations:

|                                          |   |
|------------------------------------------|---|
| Edge of Town Centre                      | 2 |
| Edge of Town                             | 2 |
| Neighbourhood Centre (PPS6 Local Centre) | 2 |

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

Selected Location Sub Categories:

|                  |   |
|------------------|---|
| Industrial Zone  | 1 |
| Residential Zone | 1 |
| Retail Zone      | 1 |
| Built-Up Zone    | 1 |
| High Street      | 1 |
| No Sub Category  | 1 |

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

**Secondary Filtering selection:**Use Class:

|    |        |
|----|--------|
| A1 | 6 days |
|----|--------|

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

Population within 1 mile:

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

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

Population within 5 miles:

|                    |        |
|--------------------|--------|
| 25,001 to 50,000   | 1 days |
| 50,001 to 75,000   | 1 days |
| 75,001 to 100,000  | 1 days |
| 250,001 to 500,000 | 1 days |
| 500,001 or More    | 2 days |

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

Car ownership within 5 miles:

|            |        |
|------------|--------|
| 0.6 to 1.0 | 2 days |
| 1.1 to 1.5 | 4 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 | 6 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:

|     |        |
|-----|--------|
| Yes | 1 days |
| No  | 5 days |

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

PTAL Rating:

|                 |        |
|-----------------|--------|
| No PTAL Present | 6 days |
|-----------------|--------|

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

LIST OF SITES relevant to selection parameters

|          |                                          |             |                         |
|----------|------------------------------------------|-------------|-------------------------|
| <b>1</b> | <b>LN-01-C-01</b>                        | <b>LIDL</b> | <b>LINCOLNSHIRE</b>     |
|          | RICHMOND DRIVE                           |             |                         |
|          | SKEGNESS                                 |             |                         |
|          | Edge of Town Centre                      |             |                         |
|          | Built-Up Zone                            |             |                         |
|          | Total Retail floor area:                 | 1424 sqm    |                         |
|          | Survey date: TUESDAY                     | 19/07/16    | Survey Type: MANUAL     |
| <b>2</b> | <b>NR-01-C-02</b>                        | <b>LIDL</b> | <b>NORTHAMPTONSHIRE</b> |
|          | NEWTON ROAD                              |             |                         |
|          | RUSHDEN                                  |             |                         |
|          | Edge of Town Centre                      |             |                         |
|          | Residential Zone                         |             |                         |
|          | Total Retail floor area:                 | 1424 sqm    |                         |
|          | Survey date: TUESDAY                     | 19/07/16    | Survey Type: MANUAL     |
| <b>3</b> | <b>NT-01-C-01</b>                        | <b>LIDL</b> | <b>NOTTINGHAMSHIRE</b>  |
|          | CHAPEL LANE                              |             |                         |
|          | BINGHAM                                  |             |                         |
|          | Edge of Town                             |             |                         |
|          | Industrial Zone                          |             |                         |
|          | Total Retail floor area:                 | 1424 sqm    |                         |
|          | Survey date: FRIDAY                      | 15/07/16    | Survey Type: MANUAL     |
| <b>4</b> | <b>WM-01-C-01</b>                        | <b>LIDL</b> | <b>WEST MIDLANDS</b>    |
|          | MACKADOWN LANE                           |             |                         |
|          | KITT'S GREEN                             |             |                         |
|          | BIRMINGHAM                               |             |                         |
|          | Neighbourhood Centre (PPS6 Local Centre) |             |                         |
|          | No Sub Category                          |             |                         |
|          | Total Retail floor area:                 | 1341 sqm    |                         |
|          | Survey date: TUESDAY                     | 12/07/16    | Survey Type: MANUAL     |
| <b>5</b> | <b>WM-01-C-02</b>                        | <b>LIDL</b> | <b>WEST MIDLANDS</b>    |
|          | HIGH STREET                              |             |                         |
|          | GUNS VILLAGE                             |             |                         |
|          | WEST BROMWICH                            |             |                         |
|          | Neighbourhood Centre (PPS6 Local Centre) |             |                         |
|          | High Street                              |             |                         |
|          | Total Retail floor area:                 | 1341 sqm    |                         |
|          | Survey date: TUESDAY                     | 12/07/16    | Survey Type: MANUAL     |
| <b>6</b> | <b>WO-01-C-01</b>                        | <b>LIDL</b> | <b>WORCESTERSHIRE</b>   |
|          | BLACKPOLE ROAD                           |             |                         |
|          | BRICKFIELDS                              |             |                         |
|          | WORCESTER                                |             |                         |
|          | Edge of Town                             |             |                         |
|          | Retail Zone                              |             |                         |
|          | Total Retail floor area:                 | 1424 sqm    |                         |
|          | Survey date: WEDNESDAY                   | 13/07/16    | 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

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

| Time Range    | ARRIVALS |             |              | DEPARTURES |             |              | TOTALS   |             |               |
|---------------|----------|-------------|--------------|------------|-------------|--------------|----------|-------------|---------------|
|               | No. Days | Ave. RFA    | Trip Rate    | No. Days   | Ave. RFA    | Trip Rate    | No. Days | Ave. RFA    | 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        | 1424        | 0.281        | 2          | 1424        | 0.070        | 2        | 1424        | 0.351         |
| 07:00 - 08:00 | 6        | 1396        | 0.442        | 6          | 1396        | 0.155        | 6        | 1396        | 0.597         |
| 08:00 - 09:00 | 6        | 1396        | 3.963        | 6          | 1396        | 2.507        | 6        | 1396        | 6.470         |
| 09:00 - 10:00 | 6        | 1396        | 5.347        | 6          | 1396        | 4.440        | 6        | 1396        | 9.787         |
| 10:00 - 11:00 | 6        | 1396        | 5.514        | 6          | 1396        | 4.798        | 6        | 1396        | 10.312        |
| 11:00 - 12:00 | 6        | 1396        | 6.171        | 6          | 1396        | 5.634        | 6        | 1396        | 11.805        |
| 12:00 - 13:00 | 6        | 1396        | 5.992        | 6          | 1396        | 5.896        | 6        | 1396        | 11.888        |
| 13:00 - 14:00 | 6        | 1396        | 6.302        | <b>6</b>   | <b>1396</b> | <b>7.245</b> | 6        | 1396        | 13.547        |
| 14:00 - 15:00 | <b>6</b> | <b>1396</b> | <b>6.971</b> | 6          | 1396        | 6.481        | 6        | 1396        | 13.452        |
| 15:00 - 16:00 | 6        | 1396        | 6.971        | 6          | 1396        | 6.815        | 6        | 1396        | 13.786        |
| 16:00 - 17:00 | 6        | 1396        | 6.565        | 6          | 1396        | 7.245        | <b>6</b> | <b>1396</b> | <b>13.810</b> |
| 17:00 - 18:00 | 6        | 1396        | 6.493        | 6          | 1396        | 6.517        | 6        | 1396        | 13.010        |
| 18:00 - 19:00 | 6        | 1396        | 5.801        | 6          | 1396        | 6.278        | 6        | 1396        | 12.079        |
| 19:00 - 20:00 | 6        | 1396        | 4.476        | 6          | 1396        | 5.121        | 6        | 1396        | 9.597         |
| 20:00 - 21:00 | 6        | 1396        | 3.103        | 6          | 1396        | 4.070        | 6        | 1396        | 7.173         |
| 21:00 - 22:00 | 6        | 1396        | 1.086        | 6          | 1396        | 1.862        | 6        | 1396        | 2.948         |
| 22:00 - 23:00 | 6        | 1396        | 0.024        | 6          | 1396        | 0.442        | 6        | 1396        | 0.466         |
| 23:00 - 24:00 |          |             |              |            |             |              |          |             |               |
| Total Rates:  |          |             | 75.502       |            |             | 75.576       |          |             | 151.078       |

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

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

**Parameter summary**

|                                               |                          |
|-----------------------------------------------|--------------------------|
| Trip rate parameter range selected:           | 1341 - 1424 (units: sqm) |
| Survey date range:                            | 01/01/16 - 19/07/16      |
| Number of weekdays (Monday-Friday):           | 6                        |
| Number of Saturdays:                          | 0                        |
| Number of Sundays:                            | 0                        |
| Surveys automatically removed from selection: | 0                        |
| Surveys manually removed from selection:      | 0                        |

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

Calculation Reference: AUDIT-726001-170613-0600

**TRIP RATE CALCULATION SELECTION PARAMETERS:**

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

**VEHICLES**Selected regions and areas:

|           |                      |        |
|-----------|----------------------|--------|
| <b>05</b> | <b>EAST MIDLANDS</b> |        |
|           | LN LINCOLNSHIRE      | 1 days |
|           | NR NORTHAMPTONSHIRE  | 1 days |
|           | NT NOTTINGHAMSHIRE   | 1 days |
| <b>06</b> | <b>WEST MIDLANDS</b> |        |
|           | WM WEST MIDLANDS     | 2 days |
|           | WO WORCESTERSHIRE    | 1 days |

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

**Secondary 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: Retail floor area  
 Actual Range: 1341 to 1424 (units: sqm)  
 Range Selected by User: 600 to 1424 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/16 to 19/07/16

*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 6 days

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

Selected survey types:

Manual count 6 days  
 Directional ATC Count 0 days

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

Selected Locations:

Edge of Town Centre 2  
 Edge of Town 2  
 Neighbourhood Centre (PPS6 Local Centre) 2

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

Selected Location Sub Categories:

Industrial Zone 1  
 Residential Zone 1  
 Retail Zone 1  
 Built-Up Zone 1  
 High Street 1  
 No Sub Category 1

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

**Secondary Filtering selection:**Use Class:

|    |        |
|----|--------|
| A1 | 6 days |
|----|--------|

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

Population within 1 mile:

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

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

Population within 5 miles:

|                    |        |
|--------------------|--------|
| 25,001 to 50,000   | 1 days |
| 50,001 to 75,000   | 1 days |
| 75,001 to 100,000  | 1 days |
| 250,001 to 500,000 | 1 days |
| 500,001 or More    | 2 days |

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

Car ownership within 5 miles:

|            |        |
|------------|--------|
| 0.6 to 1.0 | 2 days |
| 1.1 to 1.5 | 4 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 | 6 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:

|     |        |
|-----|--------|
| Yes | 1 days |
| No  | 5 days |

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

PTAL Rating:

|                 |        |
|-----------------|--------|
| No PTAL Present | 6 days |
|-----------------|--------|

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

LIST OF SITES relevant to selection parameters

|          |                                          |             |                         |
|----------|------------------------------------------|-------------|-------------------------|
| <b>1</b> | <b>LN-01-C-01</b>                        | <b>LIDL</b> | <b>LINCOLNSHIRE</b>     |
|          | RICHMOND DRIVE                           |             |                         |
|          | SKEGNESS                                 |             |                         |
|          | Edge of Town Centre                      |             |                         |
|          | Built-Up Zone                            |             |                         |
|          | Total Retail floor area:                 | 1424 sqm    |                         |
|          | Survey date: SATURDAY                    | 16/07/16    | Survey Type: MANUAL     |
| <b>2</b> | <b>NR-01-C-02</b>                        | <b>LIDL</b> | <b>NORTHAMPTONSHIRE</b> |
|          | NEWTON ROAD                              |             |                         |
|          | RUSHDEN                                  |             |                         |
|          | Edge of Town Centre                      |             |                         |
|          | Residential Zone                         |             |                         |
|          | Total Retail floor area:                 | 1424 sqm    |                         |
|          | Survey date: SATURDAY                    | 16/07/16    | Survey Type: MANUAL     |
| <b>3</b> | <b>NT-01-C-01</b>                        | <b>LIDL</b> | <b>NOTTINGHAMSHIRE</b>  |
|          | CHAPEL LANE                              |             |                         |
|          | BINGHAM                                  |             |                         |
|          | Edge of Town                             |             |                         |
|          | Industrial Zone                          |             |                         |
|          | Total Retail floor area:                 | 1424 sqm    |                         |
|          | Survey date: SATURDAY                    | 16/07/16    | Survey Type: MANUAL     |
| <b>4</b> | <b>WM-01-C-01</b>                        | <b>LIDL</b> | <b>WEST MIDLANDS</b>    |
|          | MACKADOWN LANE                           |             |                         |
|          | KITT'S GREEN                             |             |                         |
|          | BIRMINGHAM                               |             |                         |
|          | Neighbourhood Centre (PPS6 Local Centre) |             |                         |
|          | No Sub Category                          |             |                         |
|          | Total Retail floor area:                 | 1341 sqm    |                         |
|          | Survey date: SATURDAY                    | 09/07/16    | Survey Type: MANUAL     |
| <b>5</b> | <b>WM-01-C-02</b>                        | <b>LIDL</b> | <b>WEST MIDLANDS</b>    |
|          | HIGH STREET                              |             |                         |
|          | GUNS VILLAGE                             |             |                         |
|          | WEST BROMWICH                            |             |                         |
|          | Neighbourhood Centre (PPS6 Local Centre) |             |                         |
|          | High Street                              |             |                         |
|          | Total Retail floor area:                 | 1341 sqm    |                         |
|          | Survey date: SATURDAY                    | 09/07/16    | Survey Type: MANUAL     |
| <b>6</b> | <b>WO-01-C-01</b>                        | <b>LIDL</b> | <b>WORCESTERSHIRE</b>   |
|          | BLACKPOLE ROAD                           |             |                         |
|          | BRICKFIELDS                              |             |                         |
|          | WORCESTER                                |             |                         |
|          | Edge of Town                             |             |                         |
|          | Retail Zone                              |             |                         |
|          | Total Retail floor area:                 | 1424 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

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

| Time Range    | ARRIVALS |             |               | DEPARTURES |             |               | TOTALS   |             |               |
|---------------|----------|-------------|---------------|------------|-------------|---------------|----------|-------------|---------------|
|               | No. Days | Ave. RFA    | Trip Rate     | No. Days   | Ave. RFA    | Trip Rate     | No. Days | Ave. RFA    | 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        | 1424        | 0.386         | 2          | 1424        | 0.140         | 2        | 1424        | 0.526         |
| 07:00 - 08:00 | 6        | 1396        | 0.752         | 6          | 1396        | 0.179         | 6        | 1396        | 0.931         |
| 08:00 - 09:00 | 6        | 1396        | 4.595         | 6          | 1396        | 3.032         | 6        | 1396        | 7.627         |
| 09:00 - 10:00 | 6        | 1396        | 6.063         | 6          | 1396        | 5.682         | 6        | 1396        | 11.745        |
| 10:00 - 11:00 | 6        | 1396        | 9.298         | 6          | 1396        | 8.152         | 6        | 1396        | 17.450        |
| 11:00 - 12:00 | <b>6</b> | <b>1396</b> | <b>11.041</b> | 6          | 1396        | 10.098        | 6        | 1396        | 21.139        |
| 12:00 - 13:00 | 6        | 1396        | 10.611        | <b>6</b>   | <b>1396</b> | <b>11.447</b> | <b>6</b> | <b>1396</b> | <b>22.058</b> |
| 13:00 - 14:00 | 6        | 1396        | 10.468        | 6          | 1396        | 9.847         | 6        | 1396        | 20.315        |
| 14:00 - 15:00 | 6        | 1396        | 9.644         | 6          | 1396        | 9.298         | 6        | 1396        | 18.942        |
| 15:00 - 16:00 | 6        | 1396        | 9.585         | 6          | 1396        | 10.516        | 6        | 1396        | 20.101        |
| 16:00 - 17:00 | 6        | 1396        | 9.095         | 6          | 1396        | 9.429         | 6        | 1396        | 18.524        |
| 17:00 - 18:00 | 6        | 1396        | 7.329         | 6          | 1396        | 7.126         | 6        | 1396        | 14.455        |
| 18:00 - 19:00 | 6        | 1396        | 5.443         | 6          | 1396        | 6.672         | 6        | 1396        | 12.115        |
| 19:00 - 20:00 | 6        | 1396        | 3.533         | 6          | 1396        | 4.524         | 6        | 1396        | 8.057         |
| 20:00 - 21:00 | 6        | 1396        | 2.483         | 6          | 1396        | 2.841         | 6        | 1396        | 5.324         |
| 21:00 - 22:00 | 6        | 1396        | 1.158         | 6          | 1396        | 1.743         | 6        | 1396        | 2.901         |
| 22:00 - 23:00 | 6        | 1396        | 0.107         | 6          | 1396        | 0.501         | 6        | 1396        | 0.608         |
| 23:00 - 24:00 |          |             |               |            |             |               |          |             |               |
| Total Rates:  |          |             | 101.591       |            |             | 101.227       |          |             | 202.818       |

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

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

**Parameter summary**

Trip rate parameter range selected: 1341 - 1424 (units: sqm)  
 Survey date range: 01/01/16 - 19/07/16  
 Number of weekdays (Monday-Friday): 0  
 Number of Saturdays: 6  
 Number of Sundays: 0  
 Surveys automatically removed from selection: 0  
 Surveys manually removed from selection: 0

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

Filtering Summary

|                                                |                                    |                                            |
|------------------------------------------------|------------------------------------|--------------------------------------------|
| Land Use                                       | 06/D                               | HOTEL, FOOD & DRINK/FAST FOOD - DRIVE THRO |
| Selected Trip Rate Calculation Parameter Range | 123-500 sqm GFA                    |                                            |
| Actual Trip Rate Calculation Parameter Range   | 225-480 sqm GFA                    |                                            |
| Date Range                                     | Minimum: 01/01/10                  | Maximum: 19/09/17                          |
| Days of the week selected                      | Tuesday                            | 3                                          |
|                                                | Wednesday                          | 3                                          |
|                                                | Thursday                           | 1                                          |
|                                                | Friday                             | 2                                          |
| Main Location Types selected                   | Edge of Town Centre                | 3                                          |
|                                                | Suburban Area (PPS6 Out of Centre) | 2                                          |
|                                                | Edge of Town                       | 4                                          |
| Population < 1 Mile ranges selected            | 5,001 to 10,000                    | 4                                          |
|                                                | 15,001 to 20,000                   | 2                                          |
|                                                | 20,001 to 25,000                   | 2                                          |
|                                                | 25,001 to 50,000                   | 1                                          |
| Population < 5 Mile ranges selected            | 5,001 to 25,000                    | 2                                          |
|                                                | 25,001 to 50,000                   | 1                                          |
|                                                | 75,001 to 100,000                  | 2                                          |
|                                                | 100,001 to 125,000                 | 2                                          |
|                                                | 125,001 to 250,000                 | 2                                          |
| Car Ownership < 5 Mile ranges selected         | 0.6 to 1.0                         | 3                                          |
|                                                | 1.1 to 1.5                         | 6                                          |
| PTAL Rating                                    | No PTAL Present                    | 8                                          |
|                                                | 3 Moderate                         | 1                                          |

Calculation Reference: AUDIT-726002-180521-0530

**TRIP RATE CALCULATION SELECTION PARAMETERS:**

Land Use : 06 - HOTEL, FOOD & DRINK  
 Category : D - FAST FOOD - DRIVE THROUGH

**VEHICLES**Selected regions and areas:

|           |                                     |        |
|-----------|-------------------------------------|--------|
| <b>01</b> | <b>GREATER LONDON</b>               |        |
|           | HO HOUNSLOW                         | 1 days |
| <b>02</b> | <b>SOUTH EAST</b>                   |        |
|           | HC HAMPSHIRE                        | 1 days |
|           | SO SLOUGH                           | 1 days |
| <b>04</b> | <b>EAST ANGLIA</b>                  |        |
|           | CA CAMBRIDGESHIRE                   | 1 days |
| <b>10</b> | <b>WALES</b>                        |        |
|           | CO CONWY                            | 1 days |
| <b>11</b> | <b>SCOTLAND</b>                     |        |
|           | FI FIFE                             | 1 days |
| <b>12</b> | <b>CONNAUGHT</b>                    |        |
|           | CS SLIGO                            | 1 days |
| <b>16</b> | <b>ULSTER (REPUBLIC OF IRELAND)</b> |        |
|           | DN DONEGAL                          | 1 days |
| <b>17</b> | <b>ULSTER (NORTHERN IRELAND)</b>    |        |
|           | DE DERRY                            | 1 days |

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

**Secondary 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: 225 to 480 (units: sqm)  
 Range Selected by User: 123 to 500 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 19/09/17

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

Selected survey days:

|           |        |
|-----------|--------|
| Tuesday   | 3 days |
| Wednesday | 3 days |
| Thursday  | 1 days |
| Friday    | 2 days |

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

Selected survey types:

|                       |        |
|-----------------------|--------|
| Manual count          | 9 days |
| Directional ATC Count | 0 days |

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

Selected Locations:

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

|                  |   |
|------------------|---|
| Development Zone | 2 |
| Residential Zone | 3 |
| Retail Zone      | 1 |
| Built-Up Zone    | 2 |
| Out of Town      | 1 |

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

## Secondary Filtering selection:

### Use Class:

|    |        |
|----|--------|
| A3 | 2 days |
| A5 | 6 days |
| C3 | 1 days |

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

### Population within 1 mile:

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

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

### Car ownership within 5 miles:

|            |        |
|------------|--------|
| 0.6 to 1.0 | 3 days |
| 1.1 to 1.5 | 6 days |

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

### Travel Plan:

|    |        |
|----|--------|
| No | 9 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 | 8 days |
| 3 Moderate      | 1 days |

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

LIST OF SITES relevant to selection parameters

|                     |                                    |                      |           |
|---------------------|------------------------------------|----------------------|-----------|
| Site(1):            | CA-06-D-02                         | Gross floor area:    | 435 sqm   |
| Development Name:   | MCDONALD'S                         | Parking spaces:      | 38        |
| Location:           | CAMBRIDGE                          | Number of Employees: |           |
| Postcode:           | CB5 8WL                            | Survey Date:         | 19/09/17  |
| Main Location Type: | Suburban Area (PPS6 Out of Centre) | Survey Day:          | Tuesday   |
| Sub-Location Type:  | Residential Zone                   |                      |           |
| PTAL:               | n/a                                |                      |           |
| Site(2):            | CO-06-D-01                         | Gross floor area:    | 410 sqm   |
| Development Name:   | MCDONALD'S                         | Parking spaces:      | 31        |
| Location:           | ABERGELE                           | Number of Employees: | 21        |
| Postcode:           | LL22 7HZ                           | Survey Date:         | 21/10/11  |
| Main Location Type: | Edge of Town                       | Survey Day:          | Friday    |
| Sub-Location Type:  | Out of Town                        |                      |           |
| PTAL:               | n/a                                |                      |           |
| Site(3):            | CS-06-D-01                         | Gross floor area:    | 450 sqm   |
| Development Name:   | MCDONALD'S                         | Parking spaces:      | 12        |
| Location:           | SLIGO                              | Number of Employees: | 39        |
| Postcode:           |                                    | Survey Date:         | 21/09/10  |
| Main Location Type: | Edge of Town                       | Survey Day:          | Tuesday   |
| Sub-Location Type:  | Retail Zone                        |                      |           |
| PTAL:               | n/a                                |                      |           |
| Site(4):            | DE-06-D-01                         | Gross floor area:    | 240 sqm   |
| Development Name:   | KFC                                | Parking spaces:      | 20        |
| Location:           | LONDONDERRY                        | Number of Employees: | 18        |
| Postcode:           | BT48 7PB                           | Survey Date:         | 21/06/12  |
| Main Location Type: | Suburban Area (PPS6 Out of Centre) | Survey Day:          | Thursday  |
| Sub-Location Type:  | Development Zone                   |                      |           |
| PTAL:               | n/a                                |                      |           |
| Site(5):            | DN-06-D-01                         | Gross floor area:    | 225 sqm   |
| Development Name:   | KFC                                | Parking spaces:      | 26        |
| Location:           | LETTERKENNY                        | Number of Employees: | 15        |
| Postcode:           |                                    | Survey Date:         | 30/11/11  |
| Main Location Type: | Edge of Town Centre                | Survey Day:          | Wednesday |
| Sub-Location Type:  | Residential Zone                   |                      |           |
| PTAL:               | n/a                                |                      |           |
| Site(6):            | FI-06-D-02                         | Gross floor area:    | 275 sqm   |
| Development Name:   | KFC                                | Parking spaces:      | 42        |
| Location:           | DUNFERMLINE                        | Number of Employees: | 38        |
| Postcode:           | KY11 8EX                           | Survey Date:         | 22/03/16  |
| Main Location Type: | Edge of Town                       | Survey Day:          | Tuesday   |
| Sub-Location Type:  | Development Zone                   |                      |           |
| PTAL:               | n/a                                |                      |           |
| Site(7):            | HC-06-D-02                         | Gross floor area:    | 465 sqm   |
| Development Name:   | BURGER KING                        | Parking spaces:      | 32        |
| Location:           | ALDERSHOT                          | Number of Employees: | 41        |
| Postcode:           | GU11 1SD                           | Survey Date:         | 20/10/10  |
| Main Location Type: | Edge of Town Centre                | Survey Day:          | Wednesday |
| Sub-Location Type:  | Built-Up Zone                      |                      |           |
| PTAL:               | n/a                                |                      |           |
| Site(8):            | HO-06-D-01                         | Gross floor area:    | 378 sqm   |
| Development Name:   | MCDONALD'S                         | Parking spaces:      | 25        |
| Location:           | BRENTFORD                          | Number of Employees: | 19        |
| Postcode:           | TW8 0JS                            | Survey Date:         | 07/12/12  |
| Main Location Type: | Edge of Town Centre                | Survey Day:          | Friday    |
| Sub-Location Type:  | Built-Up Zone                      |                      |           |
| PTAL:               | 3 Moderate                         |                      |           |
| Site(9):            | SO-06-D-01                         | Gross floor area:    | 480 sqm   |
| Development Name:   | MCDONALD'S                         | Parking spaces:      | 40        |
| Location:           | SLOUGH                             | Number of Employees: | 25        |
| Postcode:           | SL1 2JD                            | Survey Date:         | 21/11/12  |
| Main Location Type: | Edge of Town                       | Survey Day:          | Wednesday |
| Sub-Location Type:  | Residential Zone                   |                      |           |
| PTAL:               | n/a                                |                      |           |

TRIP RATE for Land Use 06 - HOTEL, FOOD &amp; DRINK/D - FAST FOOD - DRIVE THROUGH

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

| Time Range    | ARRIVALS |            |               | DEPARTURES |            |               | TOTALS   |            |               |
|---------------|----------|------------|---------------|------------|------------|---------------|----------|------------|---------------|
|               | No. Days | Ave. GFA   | Trip Rate     | No. Days   | Ave. GFA   | Trip Rate     | No. Days | Ave. GFA   | Trip Rate     |
| 00:00 - 01:00 |          |            |               |            |            |               |          |            |               |
| 01:00 - 02:00 |          |            |               |            |            |               |          |            |               |
| 02:00 - 03:00 |          |            |               |            |            |               |          |            |               |
| 03:00 - 04:00 |          |            |               |            |            |               |          |            |               |
| 04:00 - 05:00 |          |            |               |            |            |               |          |            |               |
| 05:00 - 06:00 | 2        | 429        | 0.583         | 2          | 429        | 0.000         | 2        | 429        | 0.583         |
| 06:00 - 07:00 | 3        | 423        | 3.076         | 3          | 423        | 2.129         | 3        | 423        | 5.205         |
| 07:00 - 08:00 | 5        | 386        | 6.224         | 5          | 386        | 4.979         | 5        | 386        | 11.203        |
| 08:00 - 09:00 | 7        | 406        | 6.578         | 7          | 406        | 6.120         | 7        | 406        | 12.698        |
| 09:00 - 10:00 | 7        | 406        | 5.452         | 7          | 406        | 5.733         | 7        | 406        | 11.185        |
| 10:00 - 11:00 | 9        | 373        | 5.092         | 9          | 373        | 4.854         | 9        | 373        | 9.946         |
| 11:00 - 12:00 | 9        | 373        | 7.236         | 9          | 373        | 6.760         | 9        | 373        | 13.996        |
| 12:00 - 13:00 | <b>9</b> | <b>373</b> | <b>12.329</b> | 9          | 373        | 10.899        | 9        | 373        | 23.228        |
| 13:00 - 14:00 | 9        | 373        | 11.108        | <b>9</b>   | <b>373</b> | <b>12.597</b> | <b>9</b> | <b>373</b> | <b>23.705</b> |
| 14:00 - 15:00 | 9        | 373        | 8.368         | 9          | 373        | 9.172         | 9        | 373        | 17.540        |
| 15:00 - 16:00 | 9        | 373        | 8.636         | 9          | 373        | 8.041         | 9        | 373        | 16.677        |
| 16:00 - 17:00 | 9        | 373        | 9.500         | 9          | 373        | 9.529         | 9        | 373        | 19.029        |
| 17:00 - 18:00 | 9        | 373        | 9.440         | 9          | 373        | 9.261         | 9        | 373        | 18.701        |
| 18:00 - 19:00 | 9        | 373        | 10.423        | 9          | 373        | 10.542        | 9        | 373        | 20.965        |
| 19:00 - 20:00 | 9        | 373        | 9.053         | 9          | 373        | 10.006        | 9        | 373        | 19.059        |
| 20:00 - 21:00 | 9        | 373        | 5.509         | 9          | 373        | 5.837         | 9        | 373        | 11.346        |
| 21:00 - 22:00 | 9        | 373        | 4.527         | 9          | 373        | 4.497         | 9        | 373        | 9.024         |
| 22:00 - 23:00 | 7        | 385        | 2.372         | 7          | 385        | 3.039         | 7        | 385        | 5.411         |
| 23:00 - 24:00 | 5        | 403        | 0.099         | 5          | 403        | 0.994         | 5        | 403        | 1.093         |
| Total Rates:  |          |            | 125.605       |            |            |               | 124.989  | 250.594    |               |

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

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

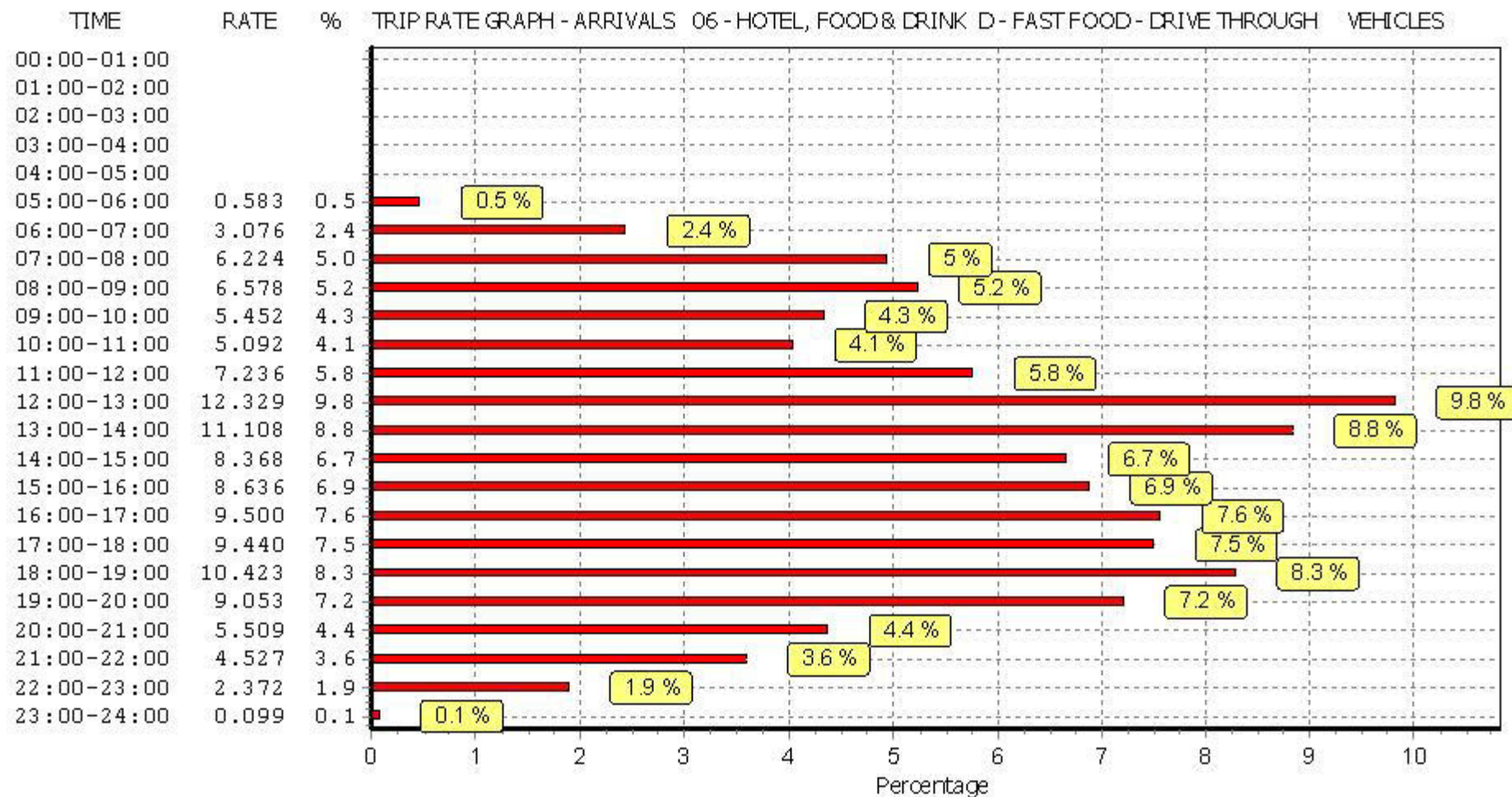
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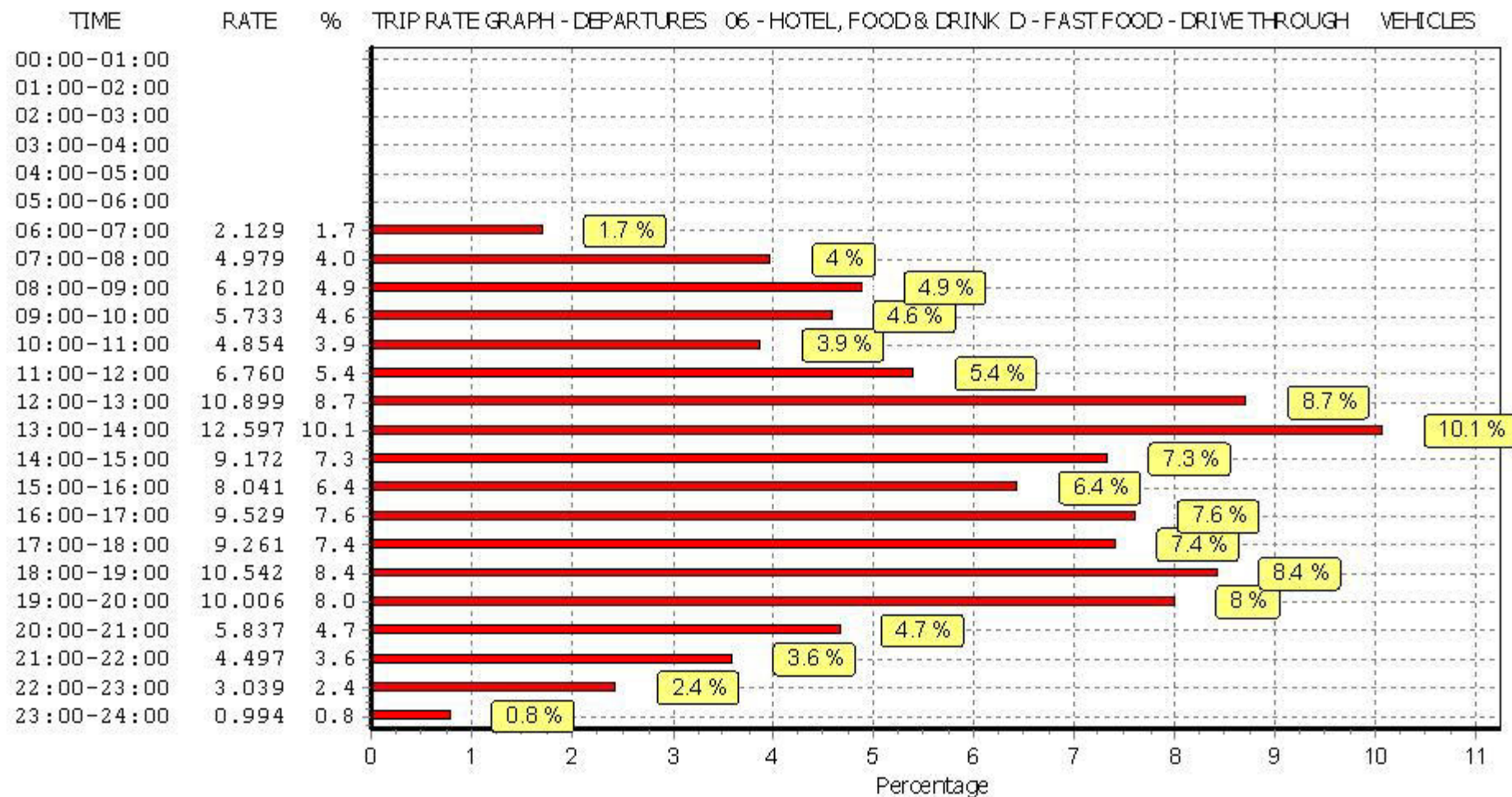
#### Parameter summary

|                                               |                        |
|-----------------------------------------------|------------------------|
| Trip rate parameter range selected:           | 225 - 480 (units: sqm) |
| Survey date range:                            | 01/01/10 - 19/09/17    |
| Number of weekdays (Monday-Friday):           | 9                      |
| Number of Saturdays:                          | 0                      |
| Number of Sundays:                            | 0                      |
| Surveys automatically removed from selection: | 1                      |
| Surveys manually removed from selection:      | 0                      |

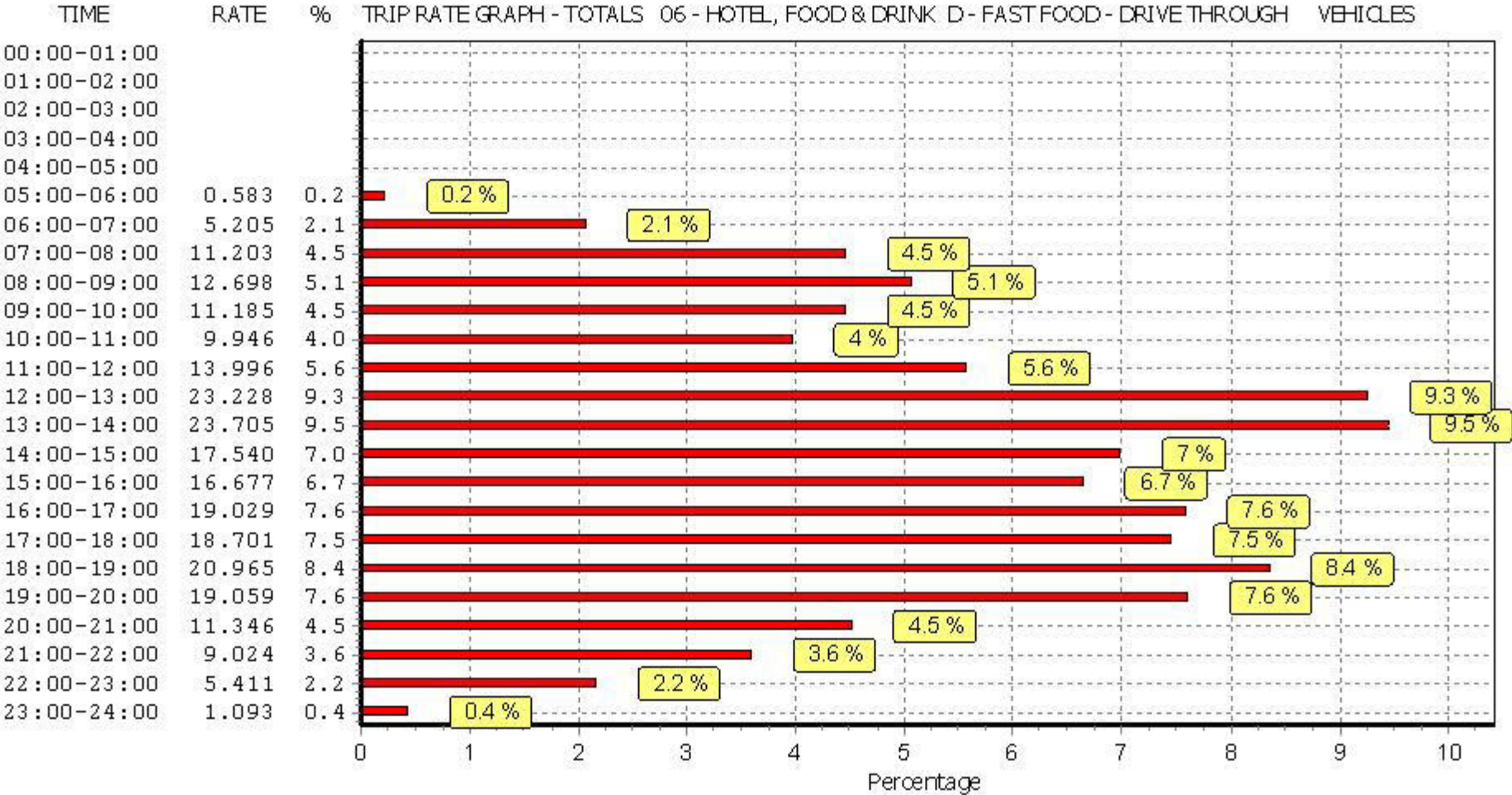
*This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



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



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TRIP RATE for Land Use 06 - HOTEL, FOOD &amp; DRINK/D - FAST FOOD - DRIVE THROUGH

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

| Time Range    | ARRIVALS |            |              | DEPARTURES |            |              | TOTALS   |            |              |
|---------------|----------|------------|--------------|------------|------------|--------------|----------|------------|--------------|
|               | No. Days | Ave. GFA   | Trip Rate    | No. Days   | Ave. GFA   | Trip Rate    | No. Days | Ave. GFA   | Trip Rate    |
| 00:00 - 01:00 |          |            |              |            |            |              |          |            |              |
| 01:00 - 02:00 |          |            |              |            |            |              |          |            |              |
| 02:00 - 03:00 |          |            |              |            |            |              |          |            |              |
| 03:00 - 04:00 |          |            |              |            |            |              |          |            |              |
| 04:00 - 05:00 |          |            |              |            |            |              |          |            |              |
| 05:00 - 06:00 | 2        | 429        | 0.000        | 2          | 429        | 0.000        | 2        | 429        | 0.000        |
| 06:00 - 07:00 | 3        | 423        | 0.000        | 3          | 423        | 0.000        | 3        | 423        | 0.000        |
| 07:00 - 08:00 | 5        | 386        | 0.000        | 5          | 386        | 0.000        | 5        | 386        | 0.000        |
| 08:00 - 09:00 | 7        | 406        | 0.000        | 7          | 406        | 0.000        | 7        | 406        | 0.000        |
| 09:00 - 10:00 | 7        | 406        | 0.000        | 7          | 406        | 0.000        | 7        | 406        | 0.000        |
| 10:00 - 11:00 | 9        | 373        | 0.030        | 9          | 373        | 0.030        | 9        | 373        | 0.060        |
| 11:00 - 12:00 | 9        | 373        | 0.030        | 9          | 373        | 0.000        | 9        | 373        | 0.030        |
| 12:00 - 13:00 | 9        | 373        | 0.060        | 9          | 373        | 0.060        | 9        | 373        | 0.120        |
| 13:00 - 14:00 | <b>9</b> | <b>373</b> | <b>0.089</b> | <b>9</b>   | <b>373</b> | <b>0.119</b> | <b>9</b> | <b>373</b> | <b>0.208</b> |
| 14:00 - 15:00 | 9        | 373        | 0.000        | 9          | 373        | 0.000        | 9        | 373        | 0.000        |
| 15:00 - 16:00 | 9        | 373        | 0.000        | 9          | 373        | 0.000        | 9        | 373        | 0.000        |
| 16:00 - 17:00 | 9        | 373        | 0.000        | 9          | 373        | 0.000        | 9        | 373        | 0.000        |
| 17:00 - 18:00 | 9        | 373        | 0.000        | 9          | 373        | 0.000        | 9        | 373        | 0.000        |
| 18:00 - 19:00 | 9        | 373        | 0.000        | 9          | 373        | 0.000        | 9        | 373        | 0.000        |
| 19:00 - 20:00 | 9        | 373        | 0.000        | 9          | 373        | 0.000        | 9        | 373        | 0.000        |
| 20:00 - 21:00 | 9        | 373        | 0.000        | 9          | 373        | 0.000        | 9        | 373        | 0.000        |
| 21:00 - 22:00 | 9        | 373        | 0.000        | 9          | 373        | 0.000        | 9        | 373        | 0.000        |
| 22:00 - 23:00 | 7        | 385        | 0.000        | 7          | 385        | 0.000        | 7        | 385        | 0.000        |
| 23:00 - 24:00 | 5        | 403        | 0.000        | 5          | 403        | 0.000        | 5        | 403        | 0.000        |
| Total Rates:  |          |            | 0.209        |            |            | 0.209        |          |            | 0.418        |

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

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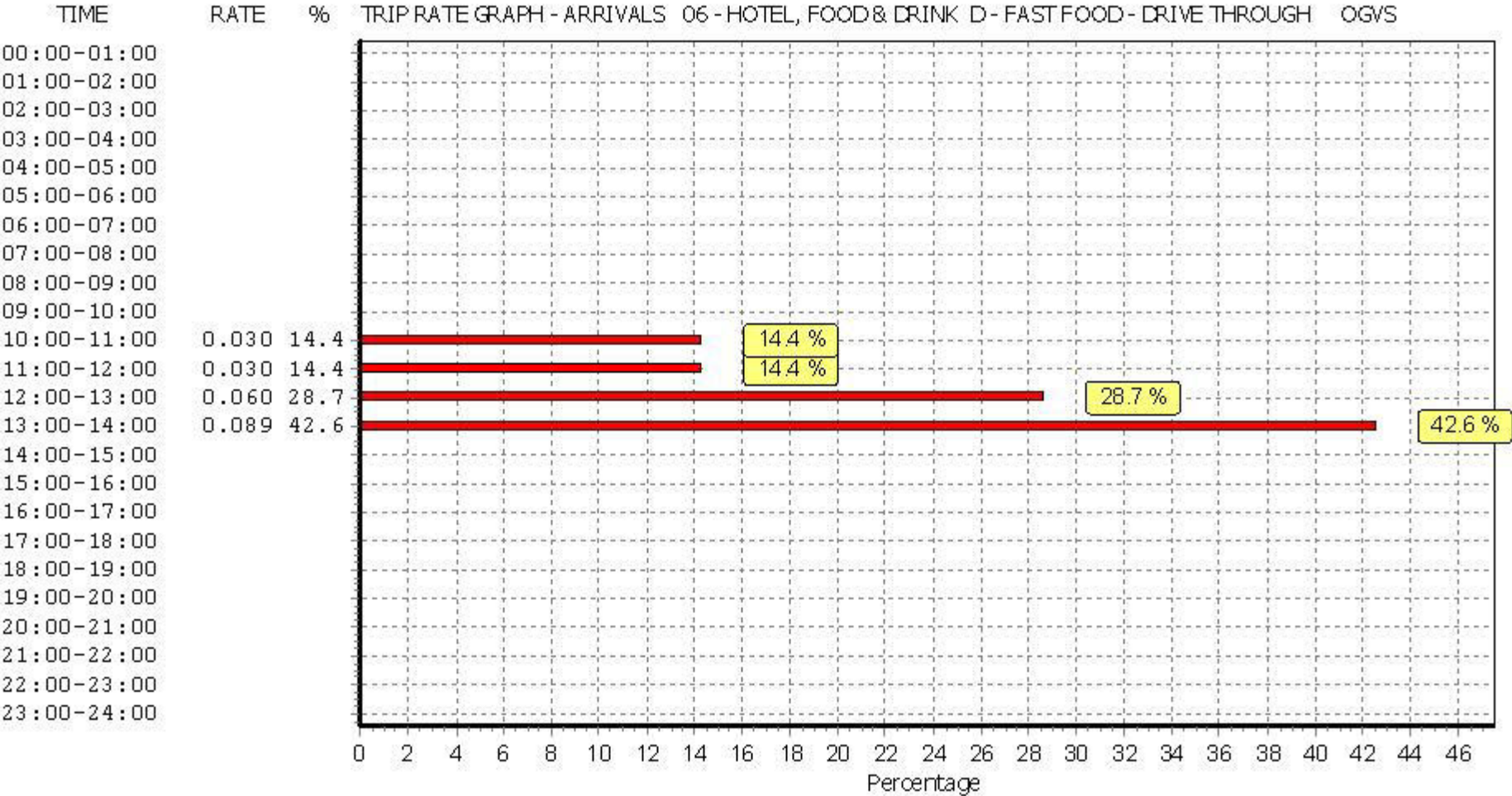
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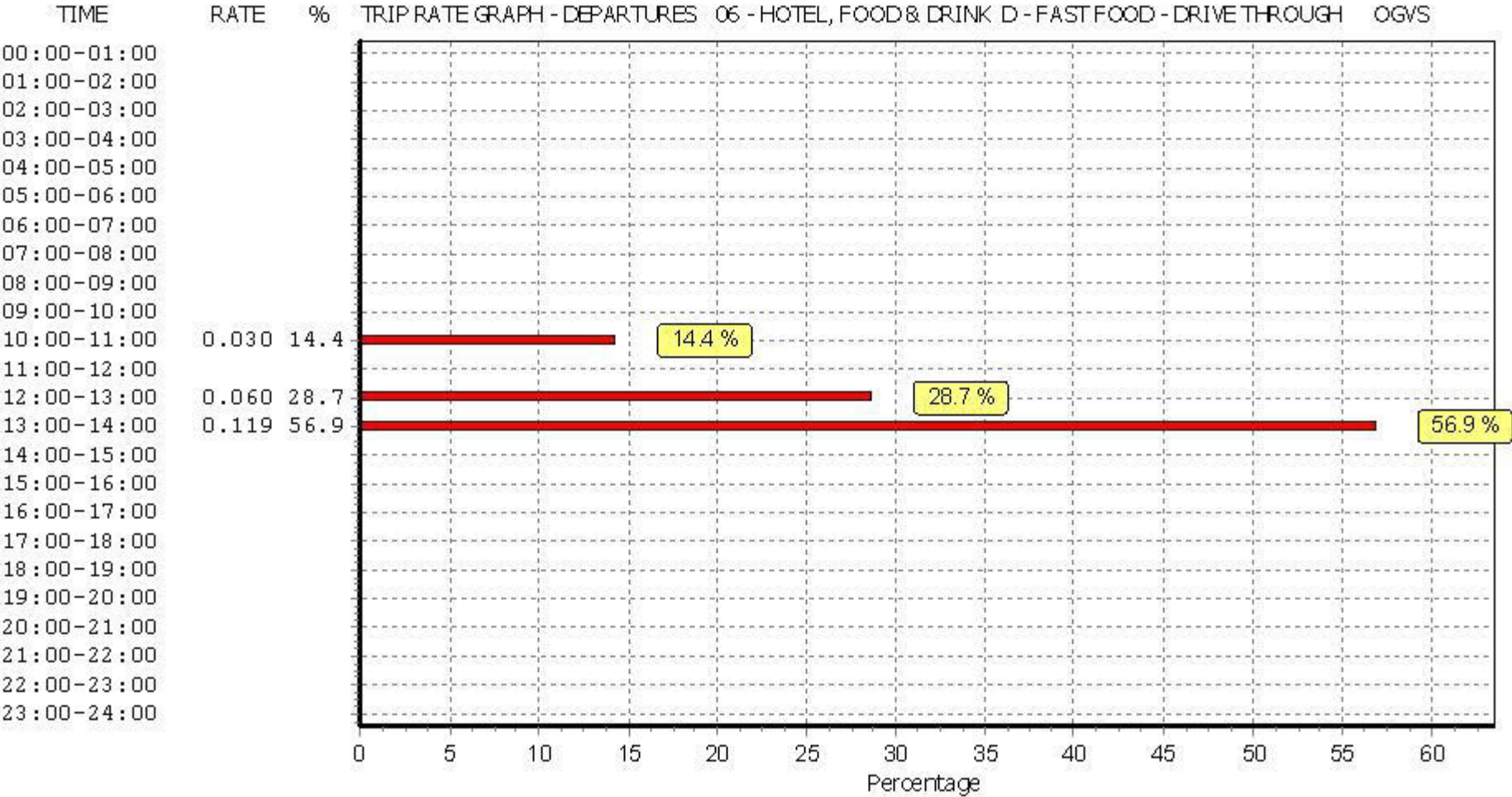
#### Parameter summary

|                                               |                        |
|-----------------------------------------------|------------------------|
| Trip rate parameter range selected:           | 225 - 480 (units: sqm) |
| Survey date range:                            | 01/01/10 - 19/09/17    |
| Number of weekdays (Monday-Friday):           | 9                      |
| Number of Saturdays:                          | 0                      |
| Number of Sundays:                            | 0                      |
| Surveys automatically removed from selection: | 1                      |
| Surveys manually removed from selection:      | 0                      |

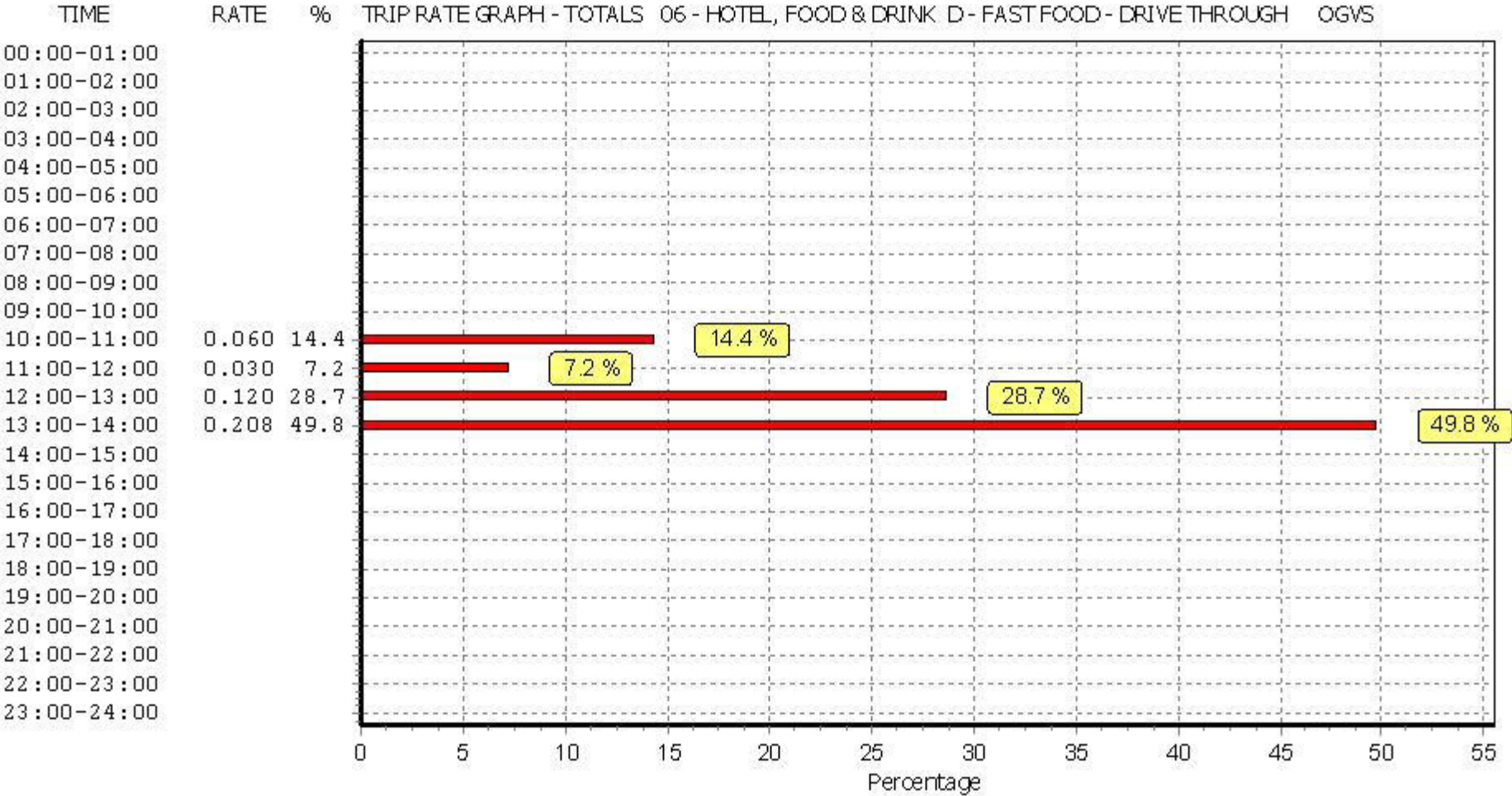
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TRIP RATE for Land Use 06 - HOTEL, FOOD &amp; DRINK/D - FAST FOOD - DRIVE THROUGH

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

| Time Range    | ARRIVALS |            |              | DEPARTURES |            |              | TOTALS   |            |              |
|---------------|----------|------------|--------------|------------|------------|--------------|----------|------------|--------------|
|               | No. Days | Ave. GFA   | Trip Rate    | No. Days   | Ave. GFA   | Trip Rate    | No. Days | Ave. GFA   | Trip Rate    |
| 00:00 - 01:00 |          |            |              |            |            |              |          |            |              |
| 01:00 - 02:00 |          |            |              |            |            |              |          |            |              |
| 02:00 - 03:00 |          |            |              |            |            |              |          |            |              |
| 03:00 - 04:00 |          |            |              |            |            |              |          |            |              |
| 04:00 - 05:00 |          |            |              |            |            |              |          |            |              |
| 05:00 - 06:00 | 2        | 429        | 0.000        | 2          | 429        | 0.000        | 2        | 429        | 0.000        |
| 06:00 - 07:00 | 3        | 423        | 0.000        | 3          | 423        | 0.000        | 3        | 423        | 0.000        |
| 07:00 - 08:00 | 5        | 386        | 0.000        | 5          | 386        | 0.000        | 5        | 386        | 0.000        |
| 08:00 - 09:00 | 7        | 406        | 0.000        | 7          | 406        | 0.000        | 7        | 406        | 0.000        |
| 09:00 - 10:00 | 7        | 406        | 0.000        | 7          | 406        | 0.000        | 7        | 406        | 0.000        |
| 10:00 - 11:00 | <b>9</b> | <b>373</b> | <b>0.030</b> | <b>9</b>   | <b>373</b> | <b>0.030</b> | <b>9</b> | <b>373</b> | <b>0.060</b> |
| 11:00 - 12:00 | 9        | 373        | 0.000        | 9          | 373        | 0.000        | 9        | 373        | 0.000        |
| 12:00 - 13:00 | 9        | 373        | 0.000        | 9          | 373        | 0.000        | 9        | 373        | 0.000        |
| 13:00 - 14:00 | 9        | 373        | 0.000        | 9          | 373        | 0.000        | 9        | 373        | 0.000        |
| 14:00 - 15:00 | 9        | 373        | 0.030        | 9          | 373        | 0.000        | 9        | 373        | 0.030        |
| 15:00 - 16:00 | 9        | 373        | 0.000        | 9          | 373        | 0.030        | 9        | 373        | 0.030        |
| 16:00 - 17:00 | 9        | 373        | 0.030        | 9          | 373        | 0.030        | 9        | 373        | 0.060        |
| 17:00 - 18:00 | 9        | 373        | 0.000        | 9          | 373        | 0.000        | 9        | 373        | 0.000        |
| 18:00 - 19:00 | 9        | 373        | 0.000        | 9          | 373        | 0.000        | 9        | 373        | 0.000        |
| 19:00 - 20:00 | 9        | 373        | 0.000        | 9          | 373        | 0.000        | 9        | 373        | 0.000        |
| 20:00 - 21:00 | 9        | 373        | 0.000        | 9          | 373        | 0.000        | 9        | 373        | 0.000        |
| 21:00 - 22:00 | 9        | 373        | 0.000        | 9          | 373        | 0.000        | 9        | 373        | 0.000        |
| 22:00 - 23:00 | 7        | 385        | 0.000        | 7          | 385        | 0.000        | 7        | 385        | 0.000        |
| 23:00 - 24:00 | 5        | 403        | 0.000        | 5          | 403        | 0.000        | 5        | 403        | 0.000        |
| Total Rates:  |          |            | 0.090        |            |            | 0.090        |          |            | 0.180        |

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

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

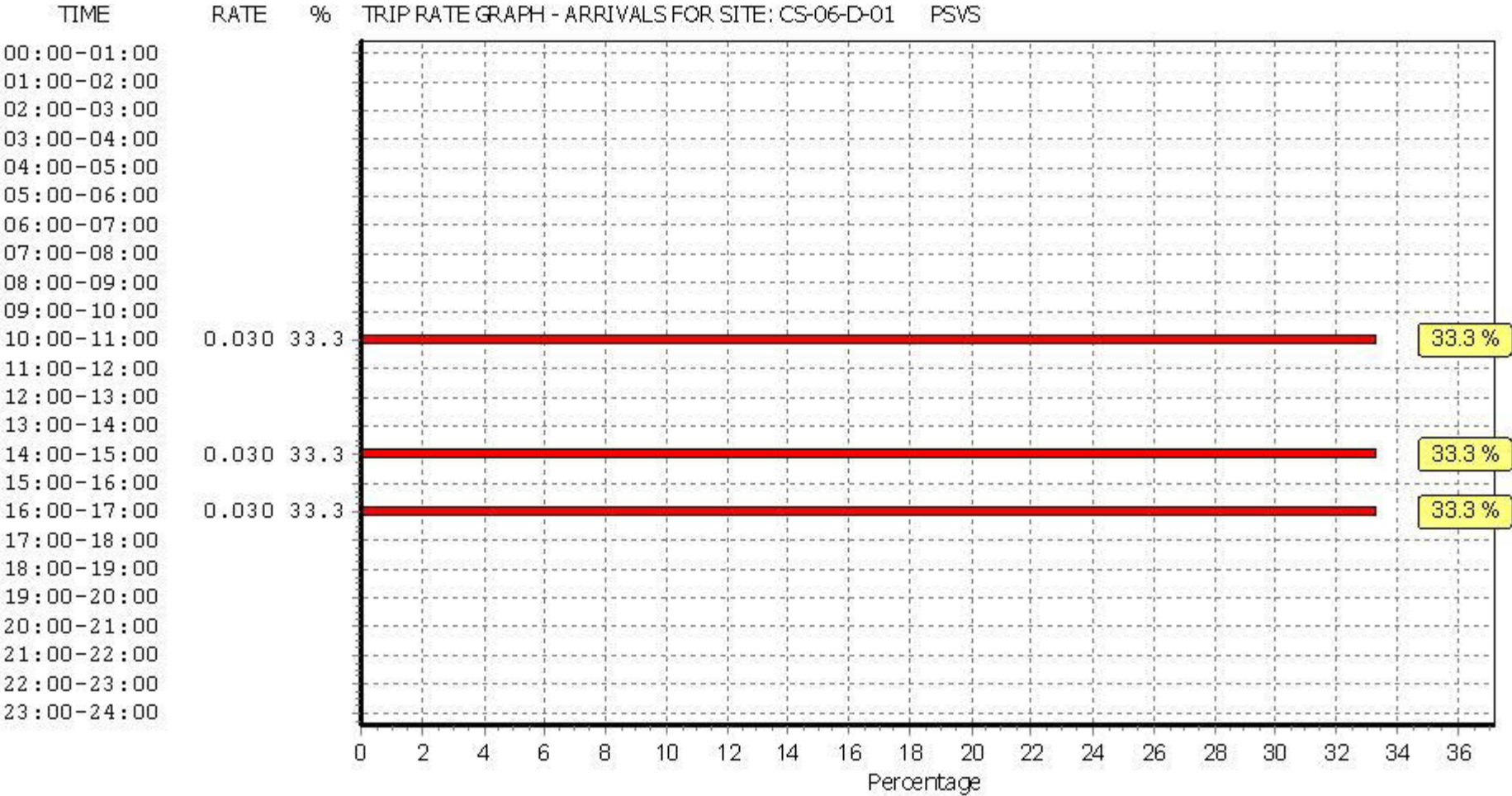
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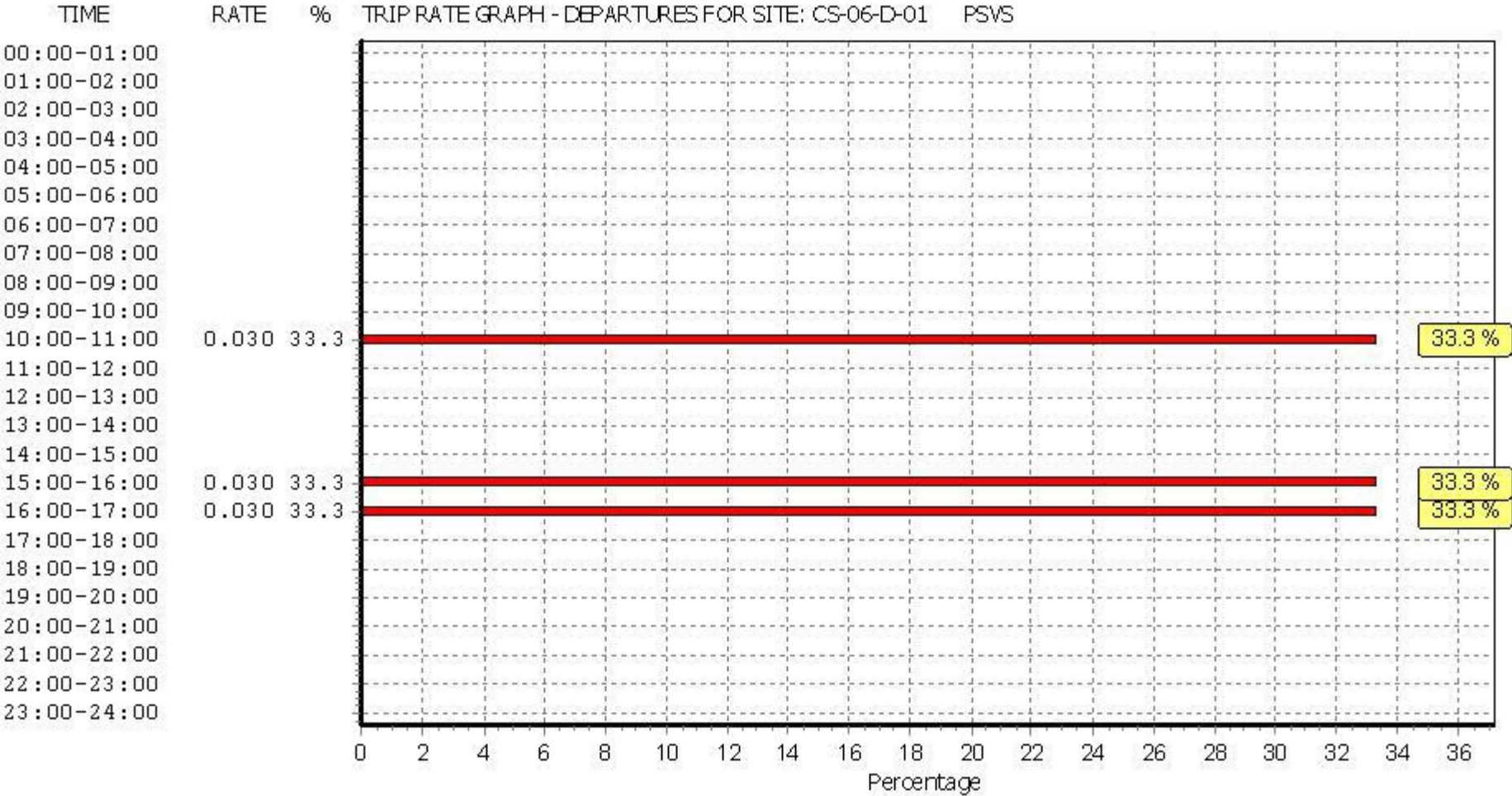
#### Parameter summary

|                                               |                        |
|-----------------------------------------------|------------------------|
| Trip rate parameter range selected:           | 225 - 480 (units: sqm) |
| Survey date range:                            | 01/01/10 - 19/09/17    |
| Number of weekdays (Monday-Friday):           | 9                      |
| Number of Saturdays:                          | 0                      |
| Number of Sundays:                            | 0                      |
| Surveys automatically removed from selection: | 1                      |
| Surveys manually removed from selection:      | 0                      |

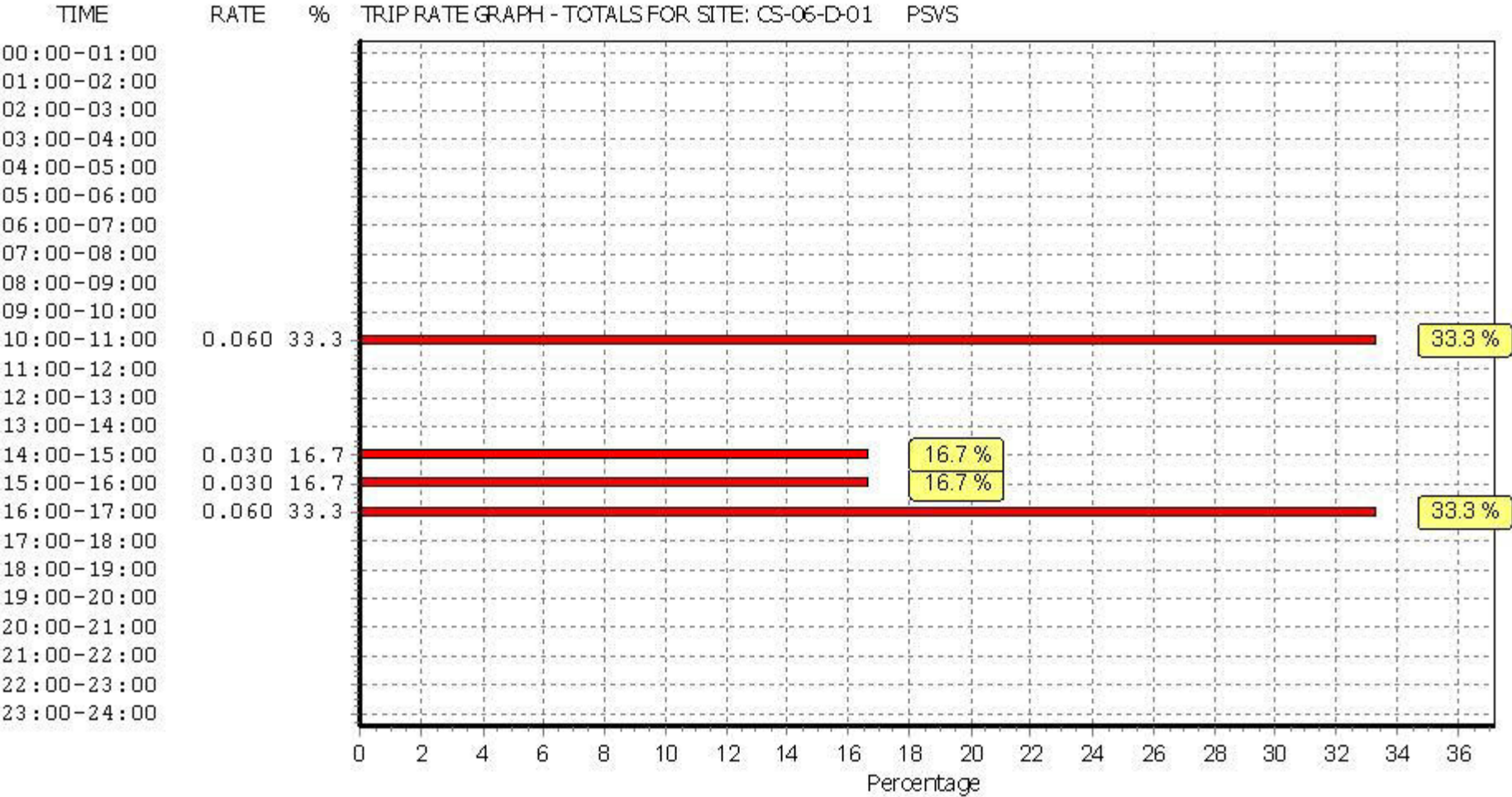
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*This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period,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



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TRIP RATE for Land Use 06 - HOTEL, FOOD &amp; DRINK/D - FAST FOOD - DRIVE THROUGH

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

| Time Range    | ARRIVALS |            |              | DEPARTURES |            |              | TOTALS   |            |              |
|---------------|----------|------------|--------------|------------|------------|--------------|----------|------------|--------------|
|               | No. Days | Ave. GFA   | Trip Rate    | No. Days   | Ave. GFA   | Trip Rate    | No. Days | Ave. GFA   | Trip Rate    |
| 00:00 - 01:00 |          |            |              |            |            |              |          |            |              |
| 01:00 - 02:00 |          |            |              |            |            |              |          |            |              |
| 02:00 - 03:00 |          |            |              |            |            |              |          |            |              |
| 03:00 - 04:00 |          |            |              |            |            |              |          |            |              |
| 04:00 - 05:00 |          |            |              |            |            |              |          |            |              |
| 05:00 - 06:00 | 2        | 429        | 0.000        | 2          | 429        | 0.000        | 2        | 429        | 0.000        |
| 06:00 - 07:00 | 3        | 423        | 0.000        | 3          | 423        | 0.000        | 3        | 423        | 0.000        |
| 07:00 - 08:00 | 5        | 386        | 0.207        | 5          | 386        | 0.104        | 5        | 386        | 0.311        |
| 08:00 - 09:00 | 7        | 406        | 0.246        | 7          | 406        | 0.317        | 7        | 406        | 0.563        |
| 09:00 - 10:00 | 7        | 406        | 0.106        | 7          | 406        | 0.106        | 7        | 406        | 0.212        |
| 10:00 - 11:00 | 9        | 373        | 0.060        | 9          | 373        | 0.060        | 9        | 373        | 0.120        |
| 11:00 - 12:00 | 9        | 373        | 0.000        | 9          | 373        | 0.000        | 9        | 373        | 0.000        |
| 12:00 - 13:00 | 9        | 373        | 0.030        | 9          | 373        | 0.030        | 9        | 373        | 0.060        |
| 13:00 - 14:00 | 9        | 373        | 0.000        | 9          | 373        | 0.000        | 9        | 373        | 0.000        |
| 14:00 - 15:00 | 9        | 373        | 0.060        | 9          | 373        | 0.060        | 9        | 373        | 0.120        |
| 15:00 - 16:00 | 9        | 373        | 0.298        | 9          | 373        | 0.298        | 9        | 373        | 0.596        |
| 16:00 - 17:00 | <b>9</b> | <b>373</b> | <b>0.417</b> | <b>9</b>   | <b>373</b> | <b>0.417</b> | <b>9</b> | <b>373</b> | <b>0.834</b> |
| 17:00 - 18:00 | 9        | 373        | 0.060        | 9          | 373        | 0.060        | 9        | 373        | 0.120        |
| 18:00 - 19:00 | 9        | 373        | 0.030        | 9          | 373        | 0.000        | 9        | 373        | 0.030        |
| 19:00 - 20:00 | 9        | 373        | 0.000        | 9          | 373        | 0.030        | 9        | 373        | 0.030        |
| 20:00 - 21:00 | 9        | 373        | 0.089        | 9          | 373        | 0.060        | 9        | 373        | 0.149        |
| 21:00 - 22:00 | 9        | 373        | 0.000        | 9          | 373        | 0.000        | 9        | 373        | 0.000        |
| 22:00 - 23:00 | 7        | 385        | 0.000        | 7          | 385        | 0.000        | 7        | 385        | 0.000        |
| 23:00 - 24:00 | 5        | 403        | 0.000        | 5          | 403        | 0.050        | 5        | 403        | 0.050        |
| Total Rates:  |          |            | 1.603        |            |            | 1.592        |          |            | 3.195        |

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

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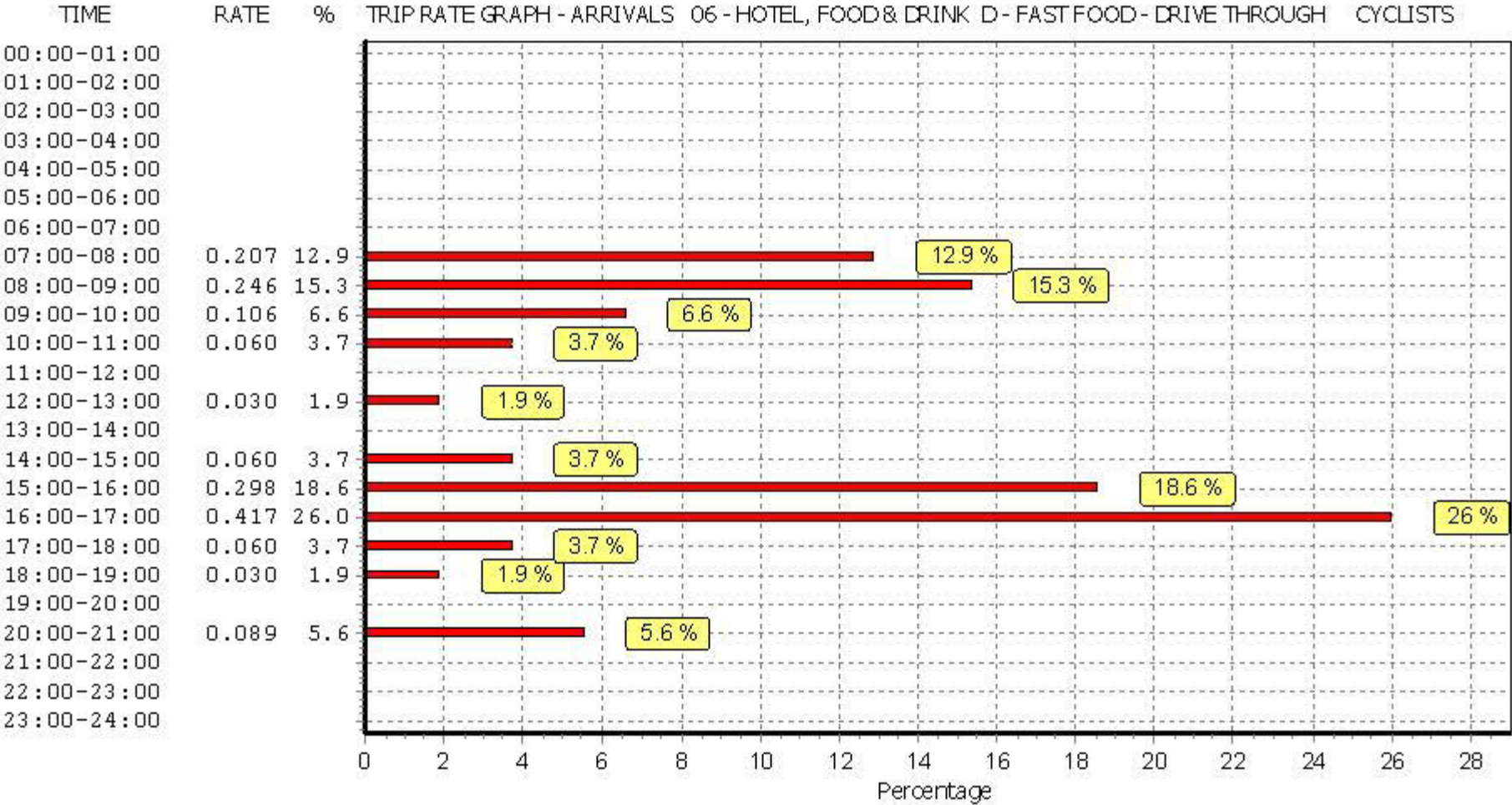
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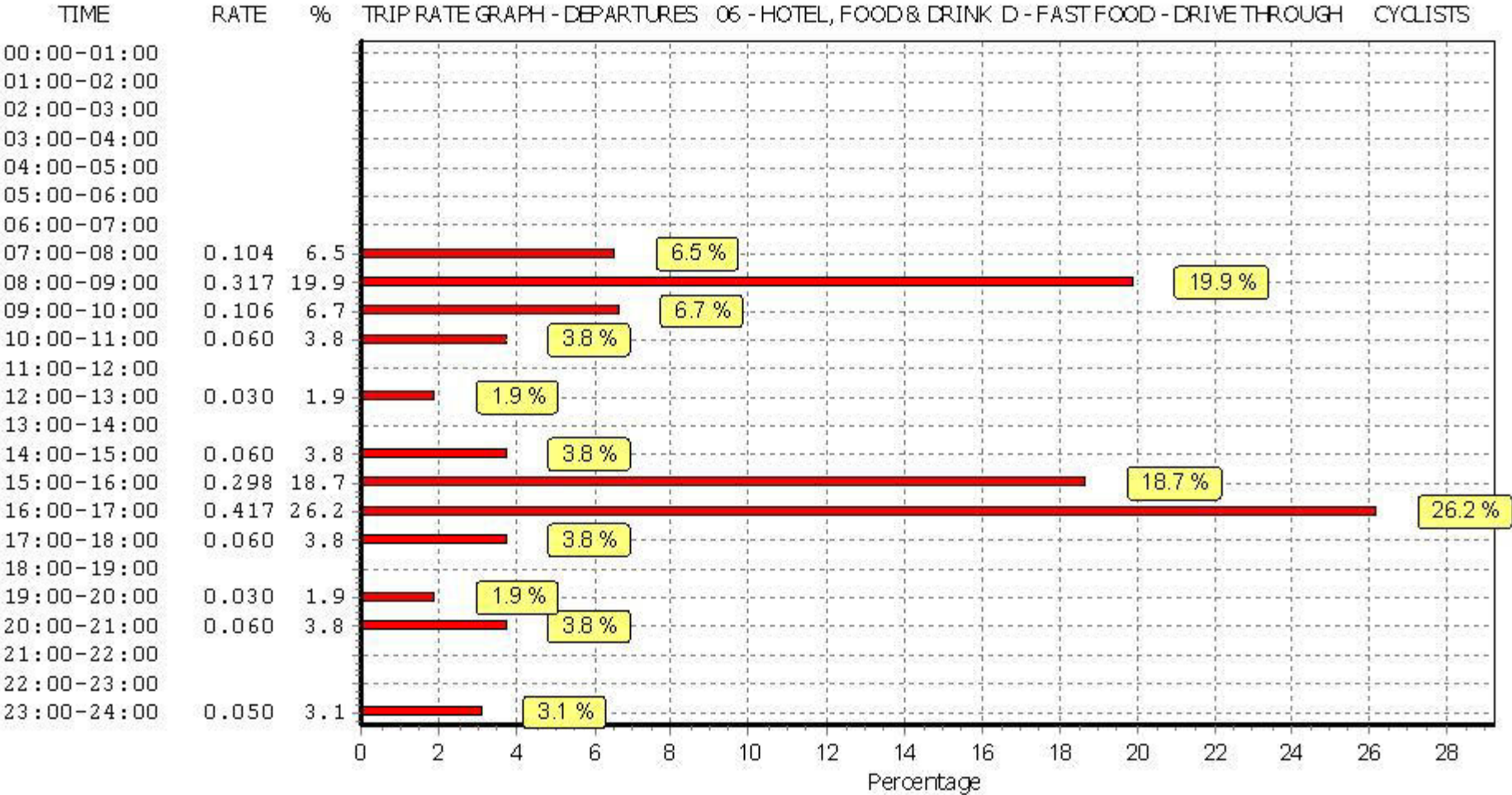
#### Parameter summary

|                                               |                        |
|-----------------------------------------------|------------------------|
| Trip rate parameter range selected:           | 225 - 480 (units: sqm) |
| Survey date range:                            | 01/01/10 - 19/09/17    |
| Number of weekdays (Monday-Friday):           | 9                      |
| Number of Saturdays:                          | 0                      |
| Number of Sundays:                            | 0                      |
| Surveys automatically removed from selection: | 1                      |
| Surveys manually removed from selection:      | 0                      |

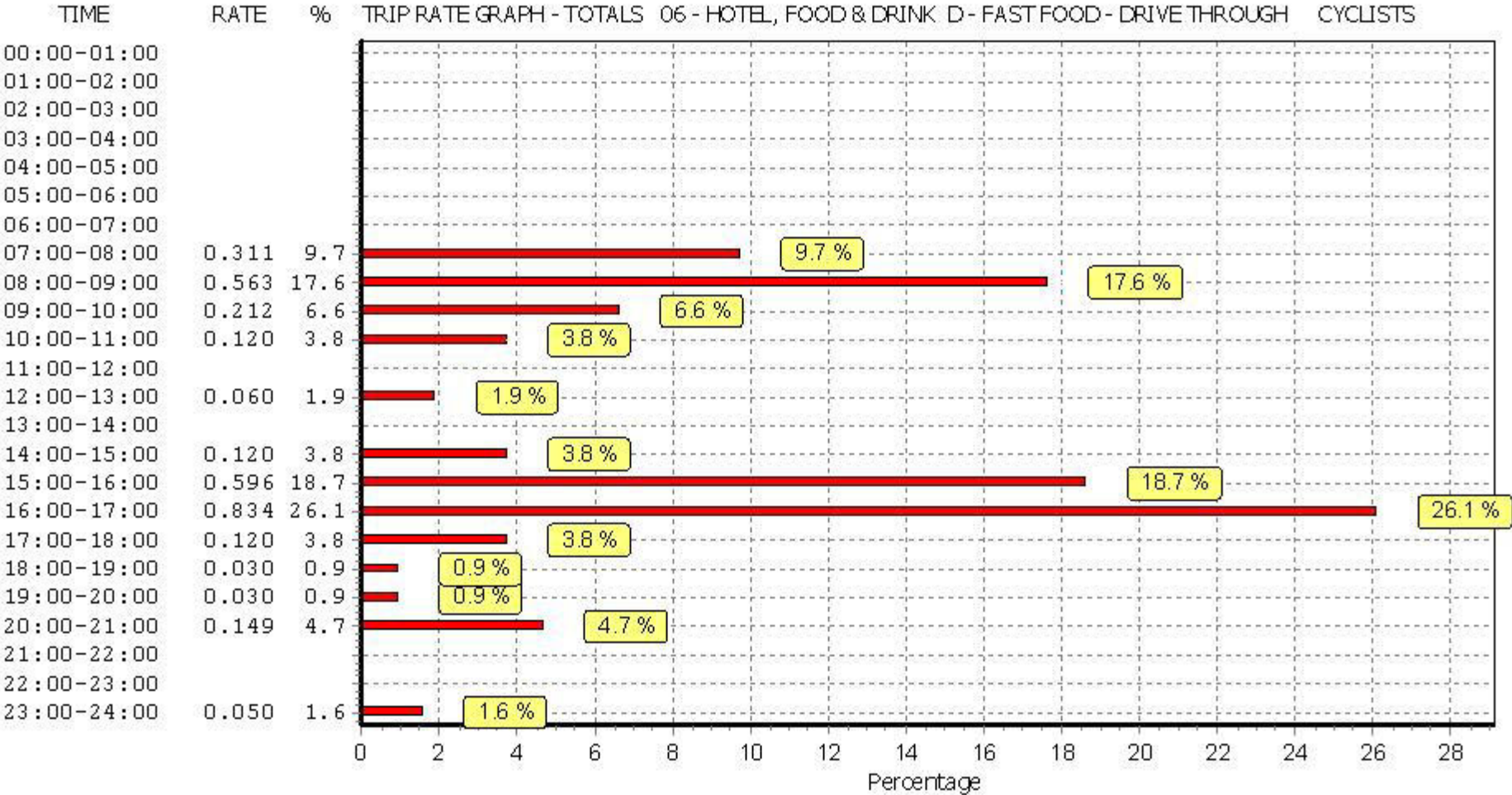
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SCP Transportation Planning 31 Southampton Row London

Licence No: 726002

Filtering Summary

|                                                |                                          |                                            |
|------------------------------------------------|------------------------------------------|--------------------------------------------|
| Land Use                                       | 06/D                                     | HOTEL, FOOD & DRINK/FAST FOOD - DRIVE THRO |
| Selected Trip Rate Calculation Parameter Range | 182-500 sqm GFA                          |                                            |
| Actual Trip Rate Calculation Parameter Range   | 317-425 sqm GFA                          |                                            |
| Date Range                                     | Minimum: 01/01/10                        | Maximum: 19/09/17                          |
| Days of the week selected                      | Saturday                                 | 4                                          |
| Main Location Types selected                   | Edge of Town                             | 2                                          |
|                                                | Neighbourhood Centre (PPS6 Local Centre) | 1                                          |
|                                                | Free Standing (PPS6 Out of Town)         | 1                                          |
| Population < 1 Mile ranges selected            | 1,000 or Less                            | 1                                          |
|                                                | 10,001 to 15,000                         | 2                                          |
|                                                | 25,001 to 50,000                         | 1                                          |
| Population < 5 Mile ranges selected            | 25,001 to 50,000                         | 1                                          |
|                                                | 100,001 to 125,000                       | 1                                          |
|                                                | 125,001 to 250,000                       | 1                                          |
|                                                | 500,001 or More                          | 1                                          |
| Car Ownership < 5 Mile ranges selected         | 0.6 to 1.0                               | 2                                          |
|                                                | 1.1 to 1.5                               | 2                                          |
| PTAL Rating                                    | No PTAL Present                          | 4                                          |

Calculation Reference: AUDIT-726002-180521-0534

**TRIP RATE CALCULATION SELECTION PARAMETERS:**

Land Use : 06 - HOTEL, FOOD & DRINK  
 Category : D - FAST FOOD - DRIVE THROUGH

**VEHICLES**Selected regions and areas:

|           |                   |        |
|-----------|-------------------|--------|
| <b>02</b> | <b>SOUTH EAST</b> |        |
|           | EX ESSEX          | 1 days |
| <b>09</b> | <b>NORTH</b>      |        |
|           | TW TYNE & WEAR    | 1 days |
| <b>10</b> | <b>WALES</b>      |        |
|           | CE CEREDIGION     | 1 days |
|           | NW NEWPORT        | 1 days |

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

**Secondary 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: 317 to 425 (units: sqm)  
 Range Selected by User: 182 to 500 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 19/09/17

*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 4 days

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

Selected survey types:

Manual count 4 days  
 Directional ATC Count 0 days

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

Selected Locations:

Edge of Town 2  
 Neighbourhood Centre (PPS6 Local Centre) 1  
 Free Standing (PPS6 Out of Town) 1

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

Selected Location Sub Categories:

Retail Zone 2  
 Built-Up Zone 1  
 Out of Town 1

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

**Secondary Filtering selection:**Use Class:

A3 2 days  
 A5 2 days

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

**Secondary Filtering selection (Cont.):**

Population within 1 mile:

|                  |        |
|------------------|--------|
| 1,000 or Less    | 1 days |
| 10,001 to 15,000 | 2 days |
| 25,001 to 50,000 | 1 days |

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

Population within 5 miles:

|                    |        |
|--------------------|--------|
| 25,001 to 50,000   | 1 days |
| 100,001 to 125,000 | 1 days |
| 125,001 to 250,000 | 1 days |
| 500,001 or More    | 1 days |

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

Car ownership within 5 miles:

|            |        |
|------------|--------|
| 0.6 to 1.0 | 2 days |
| 1.1 to 1.5 | 2 days |

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

Travel Plan:

|    |        |
|----|--------|
| No | 4 days |
|----|--------|

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

PTAL Rating:

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

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

LIST OF SITES relevant to selection parameters

|                     |                                          |                      |          |
|---------------------|------------------------------------------|----------------------|----------|
| Site(1):            | CE-06-D-01                               | Gross floor area:    | 350 sqm  |
| Development Name:   | MCDONALD'S                               | Parking spaces:      | 46       |
| Location:           | ABERYSTWYTH                              | Number of Employees: | 87       |
| Postcode:           | SY23 3TL                                 | Survey Date:         | 09/05/15 |
| Main Location Type: | Edge of Town                             | Survey Day:          | Saturday |
| Sub-Location Type:  | Retail Zone                              |                      |          |
| PTAL:               | n/a                                      |                      |          |
| Site(2):            | EX-06-D-01                               | Gross floor area:    | 425 sqm  |
| Development Name:   | MCDONALD'S                               | Parking spaces:      | 71       |
| Location:           | HARLOW                                   | Number of Employees: | 81       |
| Postcode:           | CM17 9LH                                 | Survey Date:         | 09/07/16 |
| Main Location Type: | Free Standing (PPS6 Out of Town)         | Survey Day:          | Saturday |
| Sub-Location Type:  | Out of Town                              |                      |          |
| PTAL:               | n/a                                      |                      |          |
| Site(3):            | NW-06-D-01                               | Gross floor area:    | 341 sqm  |
| Development Name:   | KFC                                      | Parking spaces:      | 48       |
| Location:           | NEWPORT                                  | Number of Employees: | 36       |
| Postcode:           | NP19 4QT                                 | Survey Date:         | 16/10/10 |
| Main Location Type: | Edge of Town                             | Survey Day:          | Saturday |
| Sub-Location Type:  | Retail Zone                              |                      |          |
| PTAL:               | n/a                                      |                      |          |
| Site(4):            | TW-06-D-01                               | Gross floor area:    | 317 sqm  |
| Development Name:   | KFC                                      | Parking spaces:      | 27       |
| Location:           | NEWCASTLE                                | Number of Employees: | 40       |
| Postcode:           | NE6 1LL                                  | Survey Date:         | 14/11/15 |
| Main Location Type: | Neighbourhood Centre (PPS6 Local Centre) | Survey Day:          | Saturday |
| Sub-Location Type:  | Built-Up Zone                            |                      |          |
| PTAL:               | n/a                                      |                      |          |

SCP Transportation Planning 31 Southampton Row London

Licence No: 726002

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/D - FAST FOOD - DRIVE THROUGH

# VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

| Time Range    | ARRIVALS |          |           | DEPARTURES |          |           | TOTALS   |          |           |
|---------------|----------|----------|-----------|------------|----------|-----------|----------|----------|-----------|
|               | No. Days | Ave. GFA | Trip Rate | No. Days   | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00 - 01:00 |          |          |           |            |          |           |          |          |           |
| 01:00 - 02:00 |          |          |           |            |          |           |          |          |           |
| 02:00 - 03:00 |          |          |           |            |          |           |          |          |           |
| 03:00 - 04:00 |          |          |           |            |          |           |          |          |           |
| 04:00 - 05:00 |          |          |           |            |          |           |          |          |           |
| 05:00 - 06:00 | 1        | 350      | 1.429     | 1          | 350      | 0.857     | 1        | 350      | 2.286     |
| 06:00 - 07:00 | 2        | 388      | 10.581    | 2          | 388      | 8.387     | 2        | 388      | 18.968    |
| 07:00 - 08:00 | 3        | 364      | 12.912    | 3          | 364      | 11.722    | 3        | 364      | 24.634    |
| 08:00 - 09:00 | 4        | 358      | 12.840    | 4          | 358      | 12.073    | 4        | 358      | 24.913    |
| 09:00 - 10:00 | 4        | 358      | 17.237    | 4          | 358      | 16.190    | 4        | 358      | 33.427    |
| 10:00 - 11:00 | 4        | 358      | 17.446    | 4          | 358      | 17.027    | 4        | 358      | 34.473    |
| 11:00 - 12:00 | 4        | 358      | 20.447    | 4          | 358      | 18.004    | 4        | 358      | 38.451    |
| 12:00 - 13:00 | 4        | 358      | 30.147    | 4          | 358      | 27.355    | 4        | 358      | 57.502    |
| 13:00 - 14:00 | 4        | 358      | 30.077    | 4          | 358      | 31.542    | 4        | 358      | 61.619    |
| 14:00 - 15:00 | 4        | 358      | 28.332    | 4          | 358      | 27.913    | 4        | 358      | 56.245    |
| 15:00 - 16:00 | 4        | 358      | 24.006    | 4          | 358      | 25.960    | 4        | 358      | 49.966    |
| 16:00 - 17:00 | 4        | 358      | 20.656    | 4          | 358      | 21.842    | 4        | 358      | 42.498    |
| 17:00 - 18:00 | 4        | 358      | 20.516    | 4          | 358      | 20.237    | 4        | 358      | 40.753    |
| 18:00 - 19:00 | 4        | 358      | 23.936    | 4          | 358      | 23.029    | 4        | 358      | 46.965    |
| 19:00 - 20:00 | 4        | 358      | 20.796    | 4          | 358      | 22.191    | 4        | 358      | 42.987    |
| 20:00 - 21:00 | 4        | 358      | 13.608    | 4          | 358      | 15.911    | 4        | 358      | 29.519    |
| 21:00 - 22:00 | 4        | 358      | 11.863    | 4          | 358      | 11.724    | 4        | 358      | 23.587    |
| 22:00 - 23:00 | 3        | 336      | 6.746     | 3          | 336      | 8.036     | 3        | 336      | 14.782    |
| 23:00 - 24:00 | 2        | 334      | 6.597     | 2          | 334      | 7.946     | 2        | 334      | 14.543    |
| Total Rates:  |          |          | 330.172   |            |          | 327.946   |          |          | 658.118   |

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

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

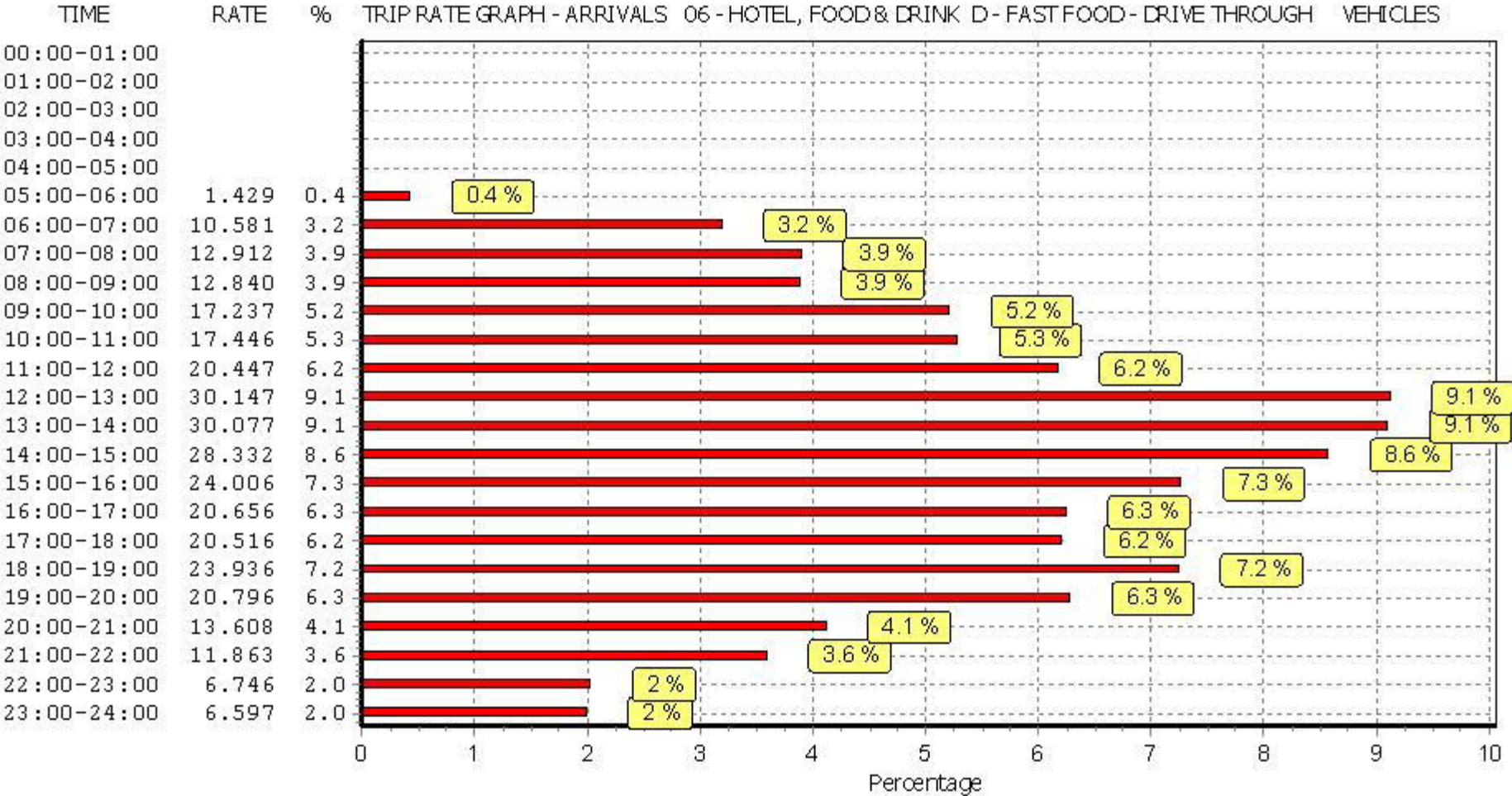
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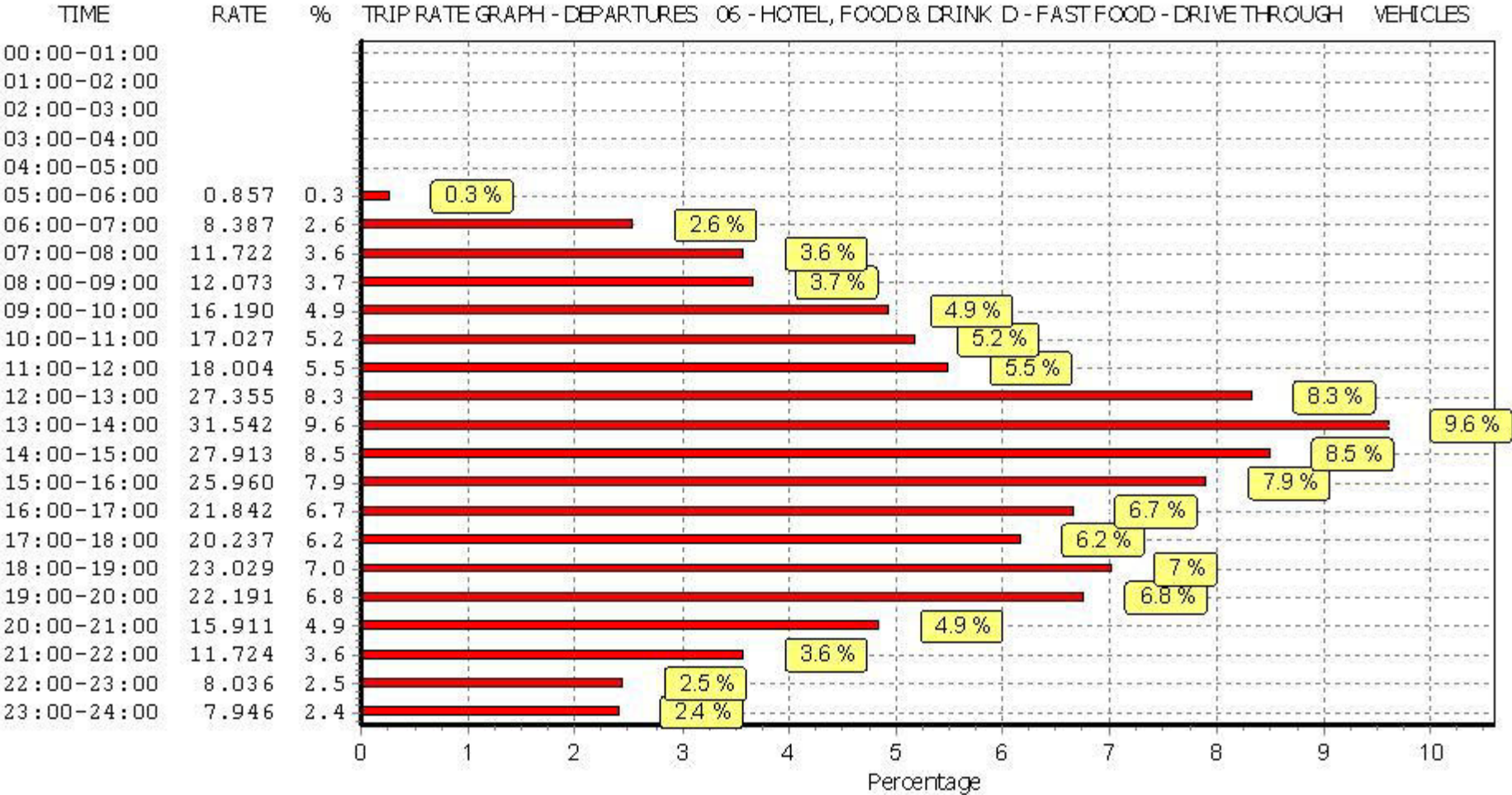
#### Parameter summary

|                                               |                        |
|-----------------------------------------------|------------------------|
| Trip rate parameter range selected:           | 317 - 425 (units: sqm) |
| Survey date range:                            | 01/01/10 - 19/09/17    |
| Number of weekdays (Monday-Friday):           | 0                      |
| Number of Saturdays:                          | 4                      |
| Number of Sundays:                            | 0                      |
| Surveys automatically removed from selection: | 0                      |
| Surveys manually removed from selection:      | 0                      |

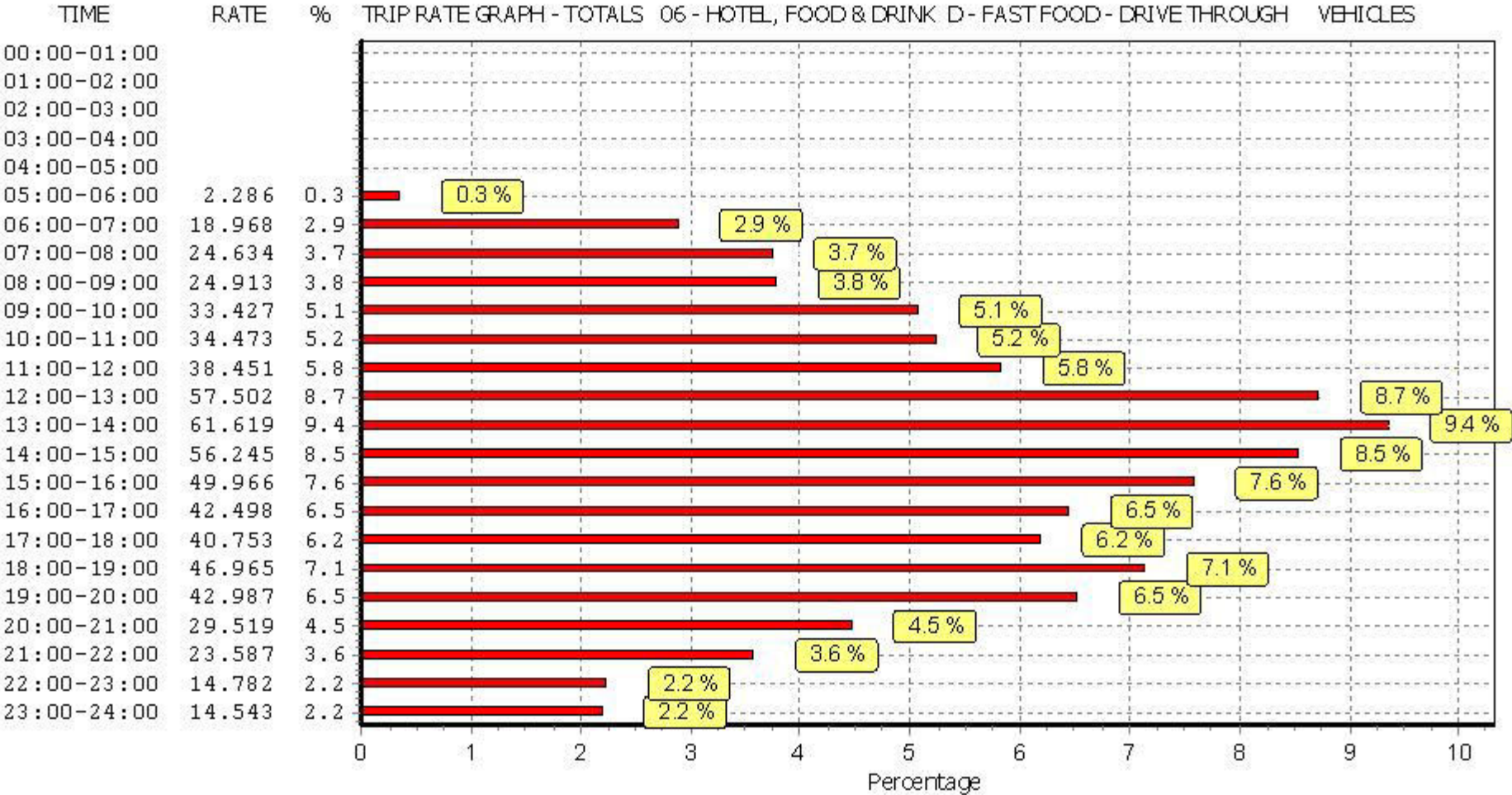
*This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



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



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



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TRIP RATE for Land Use 06 - HOTEL, FOOD &amp; DRINK/D - FAST FOOD - DRIVE THROUGH

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

| Time Range    | ARRIVALS |            |              | DEPARTURES |            |              | TOTALS   |            |              |
|---------------|----------|------------|--------------|------------|------------|--------------|----------|------------|--------------|
|               | No. Days | Ave. GFA   | Trip Rate    | No. Days   | Ave. GFA   | Trip Rate    | No. Days | Ave. GFA   | Trip Rate    |
| 00:00 - 01:00 |          |            |              |            |            |              |          |            |              |
| 01:00 - 02:00 |          |            |              |            |            |              |          |            |              |
| 02:00 - 03:00 |          |            |              |            |            |              |          |            |              |
| 03:00 - 04:00 |          |            |              |            |            |              |          |            |              |
| 04:00 - 05:00 |          |            |              |            |            |              |          |            |              |
| 05:00 - 06:00 | 1        | 350        | 0.000        | 1          | 350        | 0.000        | 1        | 350        | 0.000        |
| 06:00 - 07:00 | 2        | 388        | 0.000        | 2          | 388        | 0.000        | 2        | 388        | 0.000        |
| 07:00 - 08:00 | 3        | 364        | 0.092        | 3          | 364        | 0.092        | 3        | 364        | 0.184        |
| 08:00 - 09:00 | 4        | 358        | 0.070        | 4          | 358        | 0.070        | 4        | 358        | 0.140        |
| 09:00 - 10:00 | 4        | 358        | 0.000        | 4          | 358        | 0.000        | 4        | 358        | 0.000        |
| 10:00 - 11:00 | 4        | 358        | 0.070        | 4          | 358        | 0.000        | 4        | 358        | 0.070        |
| 11:00 - 12:00 | 4        | 358        | 0.070        | 4          | 358        | 0.070        | 4        | 358        | 0.140        |
| 12:00 - 13:00 | 4        | 358        | 0.070        | 4          | 358        | 0.140        | 4        | 358        | 0.210        |
| 13:00 - 14:00 | 4        | 358        | 0.209        | 4          | 358        | 0.209        | 4        | 358        | 0.418        |
| 14:00 - 15:00 | 4        | 358        | 0.349        | 4          | 358        | 0.349        | 4        | 358        | 0.698        |
| 15:00 - 16:00 | <b>4</b> | <b>358</b> | <b>0.558</b> | <b>4</b>   | <b>358</b> | <b>0.419</b> | <b>4</b> | <b>358</b> | <b>0.977</b> |
| 16:00 - 17:00 | 4        | 358        | 0.140        | 4          | 358        | 0.279        | 4        | 358        | 0.419        |
| 17:00 - 18:00 | 4        | 358        | 0.209        | 4          | 358        | 0.140        | 4        | 358        | 0.349        |
| 18:00 - 19:00 | 4        | 358        | 0.140        | 4          | 358        | 0.140        | 4        | 358        | 0.280        |
| 19:00 - 20:00 | 4        | 358        | 0.000        | 4          | 358        | 0.070        | 4        | 358        | 0.070        |
| 20:00 - 21:00 | 4        | 358        | 0.070        | 4          | 358        | 0.070        | 4        | 358        | 0.140        |
| 21:00 - 22:00 | 4        | 358        | 0.070        | 4          | 358        | 0.070        | 4        | 358        | 0.140        |
| 22:00 - 23:00 | 3        | 336        | 0.000        | 3          | 336        | 0.000        | 3        | 336        | 0.000        |
| 23:00 - 24:00 | 2        | 334        | 0.000        | 2          | 334        | 0.000        | 2        | 334        | 0.000        |
| Total Rates:  |          |            | 2.117        |            |            | 2.118        |          |            | 4.235        |

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

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

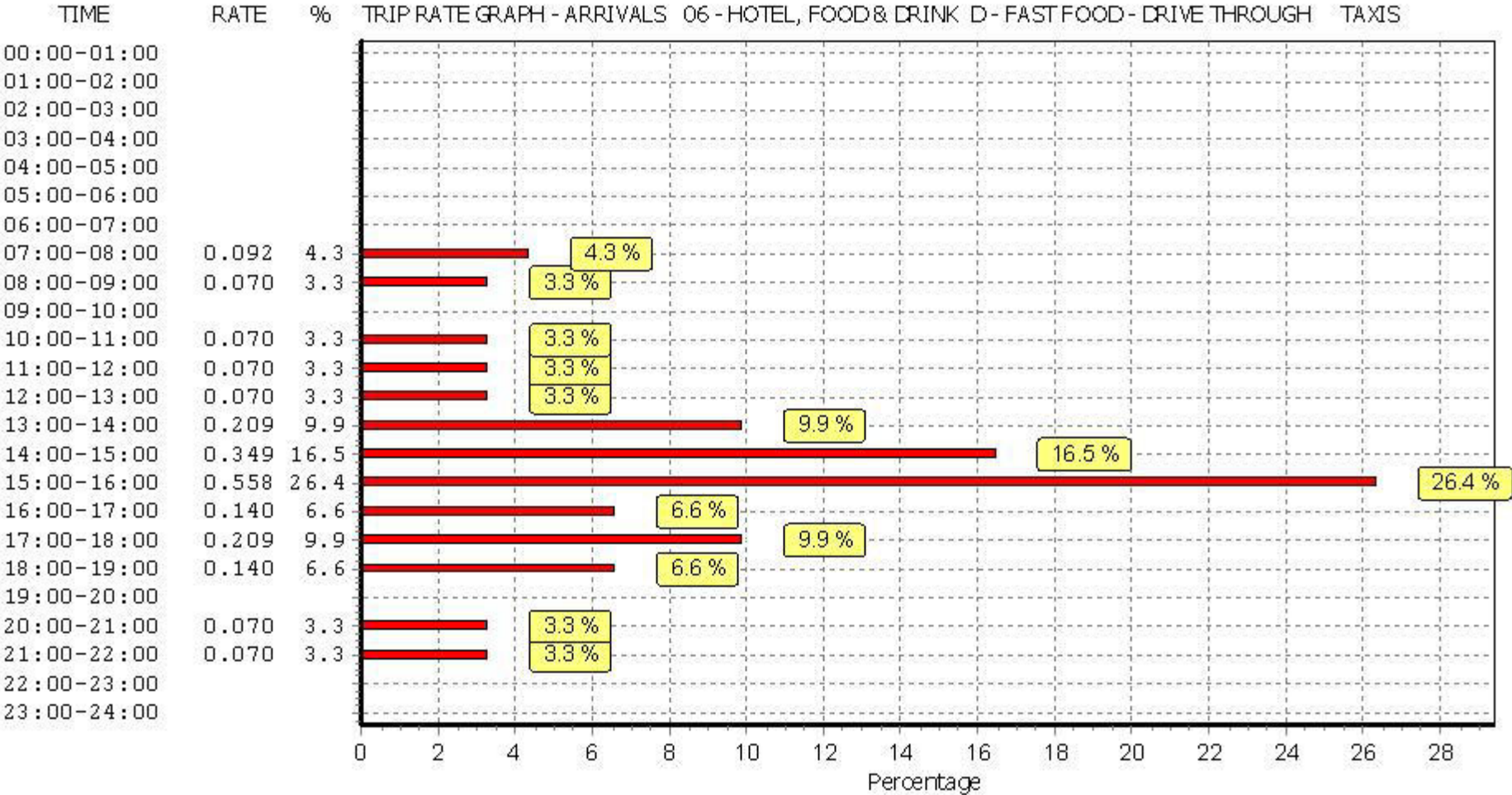
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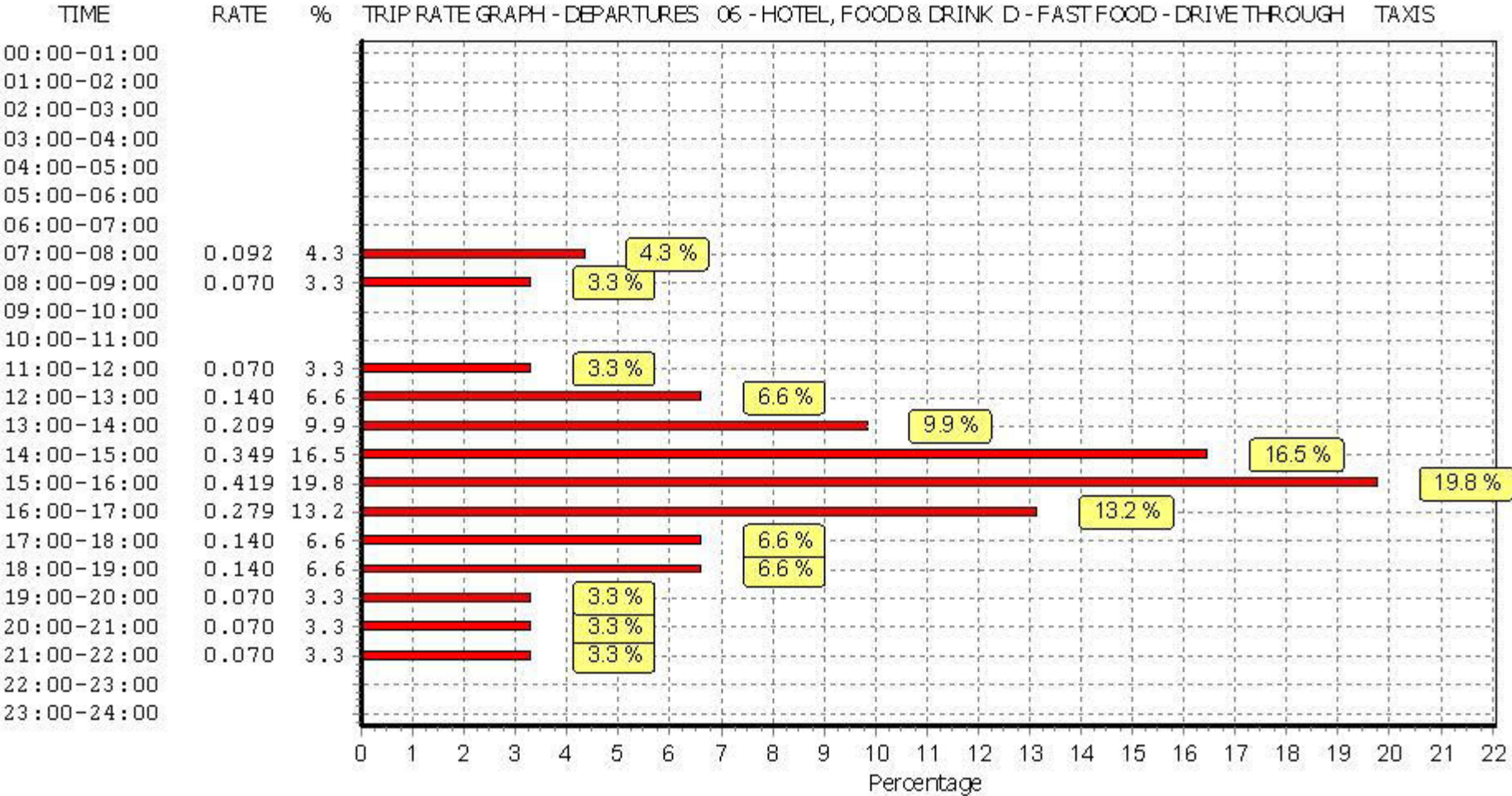
#### Parameter summary

|                                               |                        |
|-----------------------------------------------|------------------------|
| Trip rate parameter range selected:           | 317 - 425 (units: sqm) |
| Survey date range:                            | 01/01/10 - 19/09/17    |
| Number of weekdays (Monday-Friday):           | 0                      |
| Number of Saturdays:                          | 4                      |
| Number of Sundays:                            | 0                      |
| Surveys automatically removed from selection: | 0                      |
| Surveys manually removed from selection:      | 0                      |

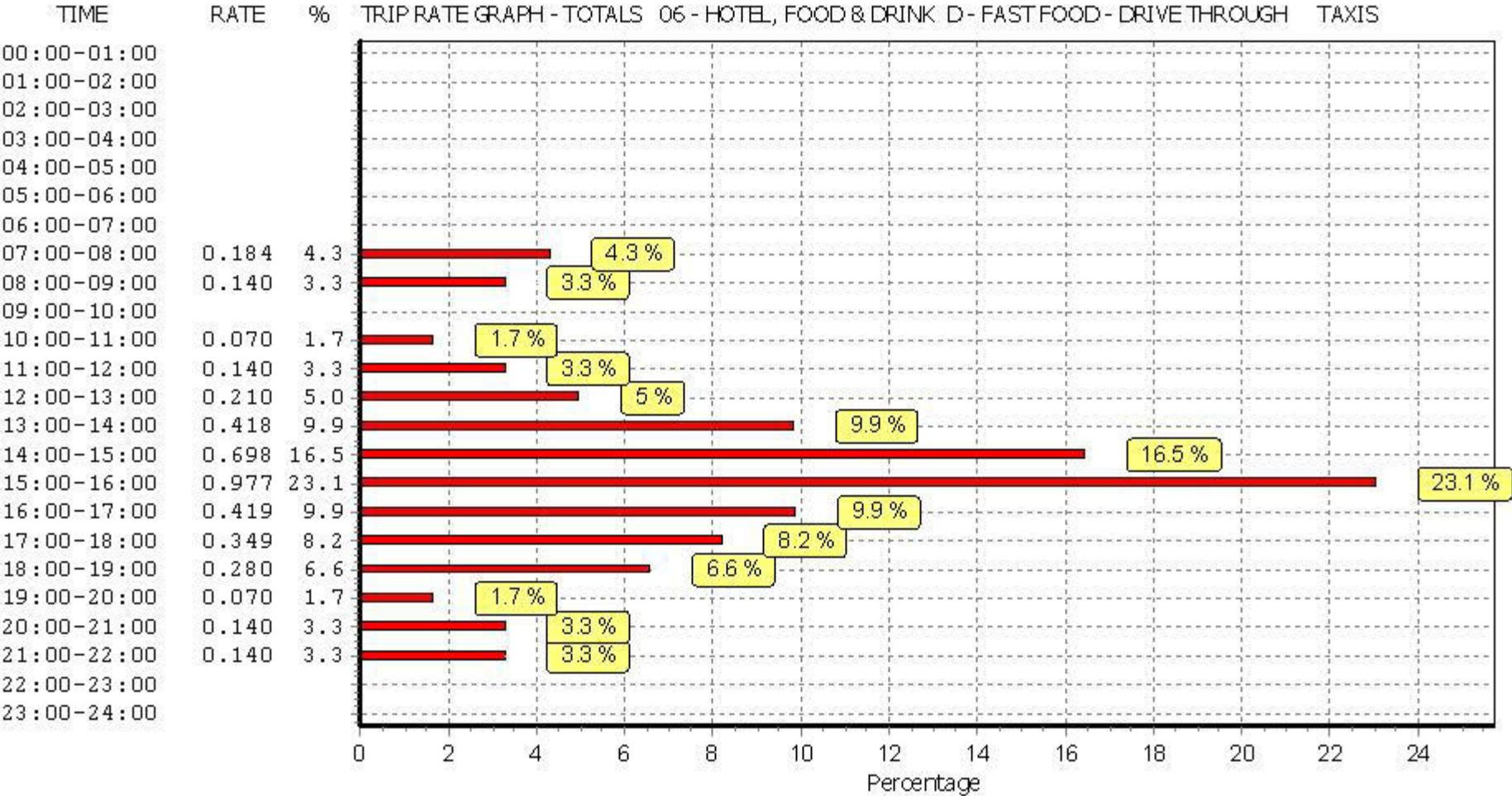
*This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



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



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TRIP RATE for Land Use 06 - HOTEL, FOOD &amp; DRINK/D - FAST FOOD - DRIVE THROUGH

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

| Time Range    | ARRIVALS |            |              | DEPARTURES |            |              | TOTALS   |            |              |
|---------------|----------|------------|--------------|------------|------------|--------------|----------|------------|--------------|
|               | No. Days | Ave. GFA   | Trip Rate    | No. Days   | Ave. GFA   | Trip Rate    | No. Days | Ave. GFA   | Trip Rate    |
| 00:00 - 01:00 |          |            |              |            |            |              |          |            |              |
| 01:00 - 02:00 |          |            |              |            |            |              |          |            |              |
| 02:00 - 03:00 |          |            |              |            |            |              |          |            |              |
| 03:00 - 04:00 |          |            |              |            |            |              |          |            |              |
| 04:00 - 05:00 |          |            |              |            |            |              |          |            |              |
| 05:00 - 06:00 | 1        | 350        | 0.000        | 1          | 350        | 0.000        | 1        | 350        | 0.000        |
| 06:00 - 07:00 | 2        | 388        | 0.129        | 2          | 388        | 0.258        | 2        | 388        | 0.387        |
| 07:00 - 08:00 | 3        | 364        | 0.183        | 3          | 364        | 0.183        | 3        | 364        | 0.366        |
| 08:00 - 09:00 | 4        | 358        | 0.209        | 4          | 358        | 0.070        | 4        | 358        | 0.279        |
| 09:00 - 10:00 | 4        | 358        | 0.140        | 4          | 358        | 0.209        | 4        | 358        | 0.349        |
| 10:00 - 11:00 | 4        | 358        | 0.209        | <b>4</b>   | <b>358</b> | <b>0.349</b> | <b>4</b> | <b>358</b> | <b>0.558</b> |
| 11:00 - 12:00 | 4        | 358        | 0.070        | 4          | 358        | 0.070        | 4        | 358        | 0.140        |
| 12:00 - 13:00 | 4        | 358        | 0.140        | 4          | 358        | 0.140        | 4        | 358        | 0.280        |
| 13:00 - 14:00 | 4        | 358        | 0.070        | 4          | 358        | 0.070        | 4        | 358        | 0.140        |
| 14:00 - 15:00 | 4        | 358        | 0.140        | 4          | 358        | 0.070        | 4        | 358        | 0.210        |
| 15:00 - 16:00 | 4        | 358        | 0.070        | 4          | 358        | 0.140        | 4        | 358        | 0.210        |
| 16:00 - 17:00 | <b>4</b> | <b>358</b> | <b>0.279</b> | 4          | 358        | 0.209        | 4        | 358        | 0.488        |
| 17:00 - 18:00 | 4        | 358        | 0.000        | 4          | 358        | 0.070        | 4        | 358        | 0.070        |
| 18:00 - 19:00 | 4        | 358        | 0.000        | 4          | 358        | 0.000        | 4        | 358        | 0.000        |
| 19:00 - 20:00 | 4        | 358        | 0.000        | 4          | 358        | 0.000        | 4        | 358        | 0.000        |
| 20:00 - 21:00 | 4        | 358        | 0.000        | 4          | 358        | 0.000        | 4        | 358        | 0.000        |
| 21:00 - 22:00 | 4        | 358        | 0.070        | 4          | 358        | 0.000        | 4        | 358        | 0.070        |
| 22:00 - 23:00 | 3        | 336        | 0.000        | 3          | 336        | 0.000        | 3        | 336        | 0.000        |
| 23:00 - 24:00 | 2        | 334        | 0.000        | 2          | 334        | 0.000        | 2        | 334        | 0.000        |
| Total Rates:  |          |            | 1.709        |            |            | 1.838        |          |            | 3.547        |

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

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

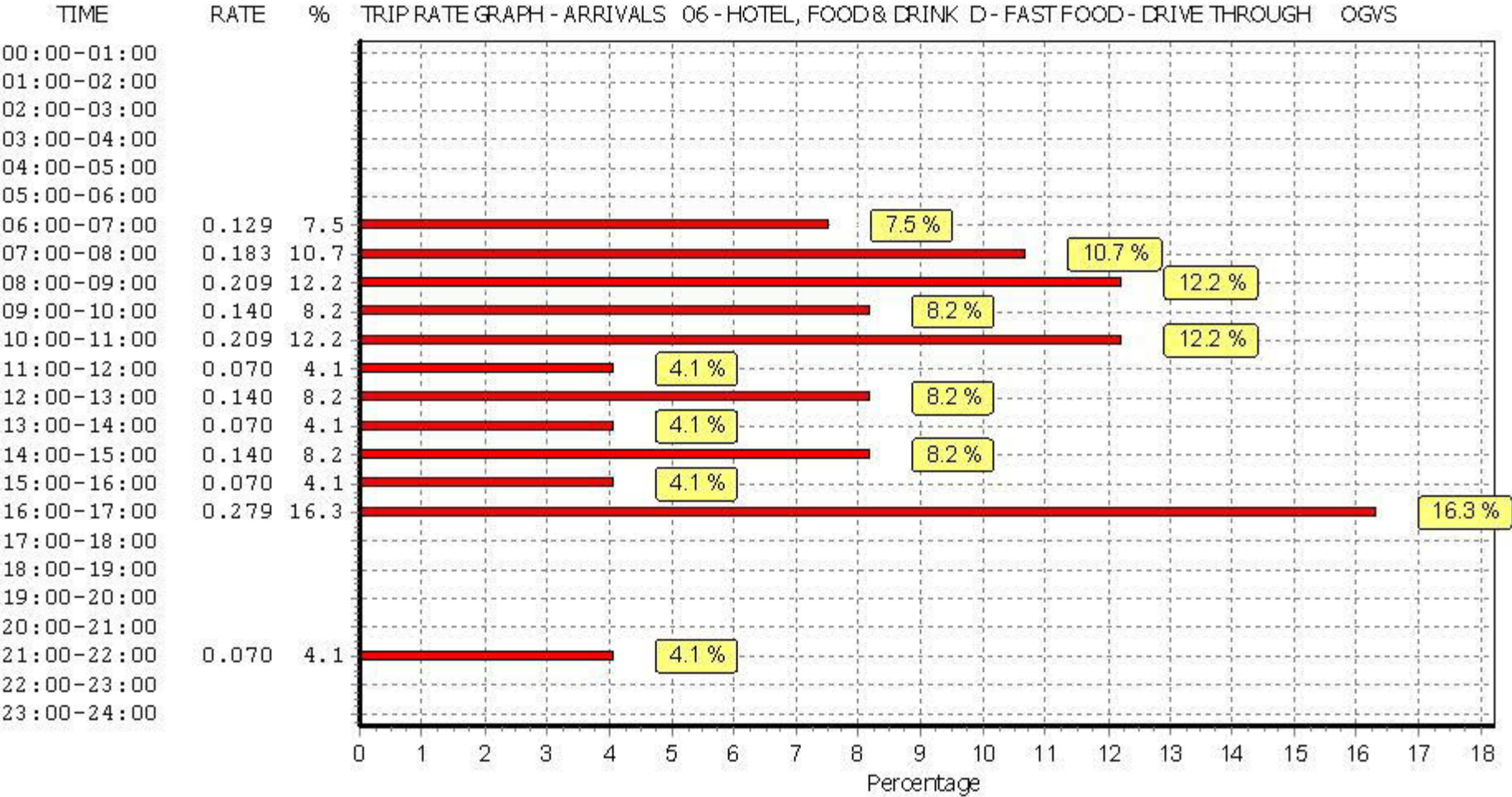
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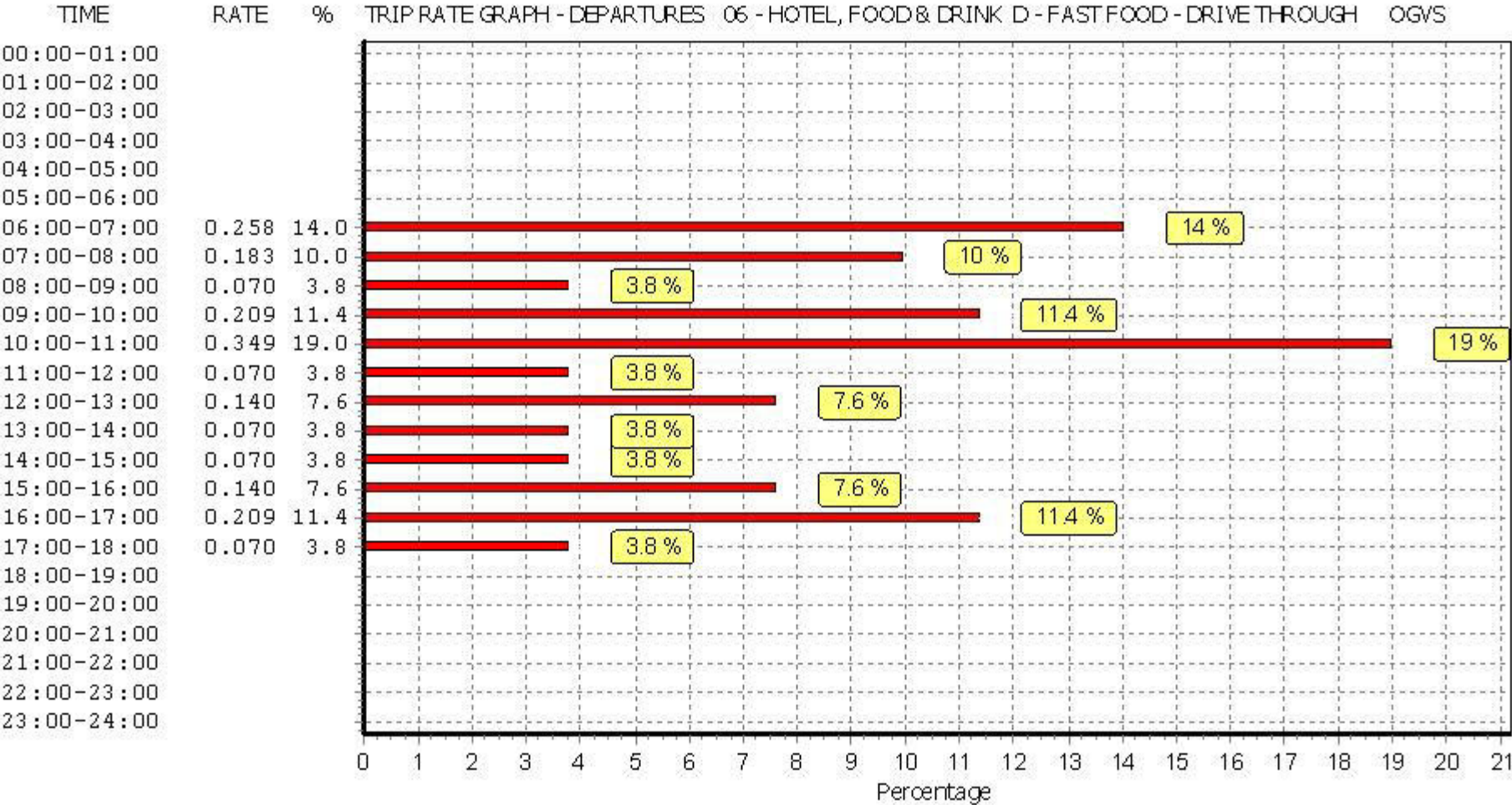
#### Parameter summary

|                                               |                        |
|-----------------------------------------------|------------------------|
| Trip rate parameter range selected:           | 317 - 425 (units: sqm) |
| Survey date range:                            | 01/01/10 - 19/09/17    |
| Number of weekdays (Monday-Friday):           | 0                      |
| Number of Saturdays:                          | 4                      |
| Number of Sundays:                            | 0                      |
| Surveys automatically removed from selection: | 0                      |
| Surveys manually removed from selection:      | 0                      |

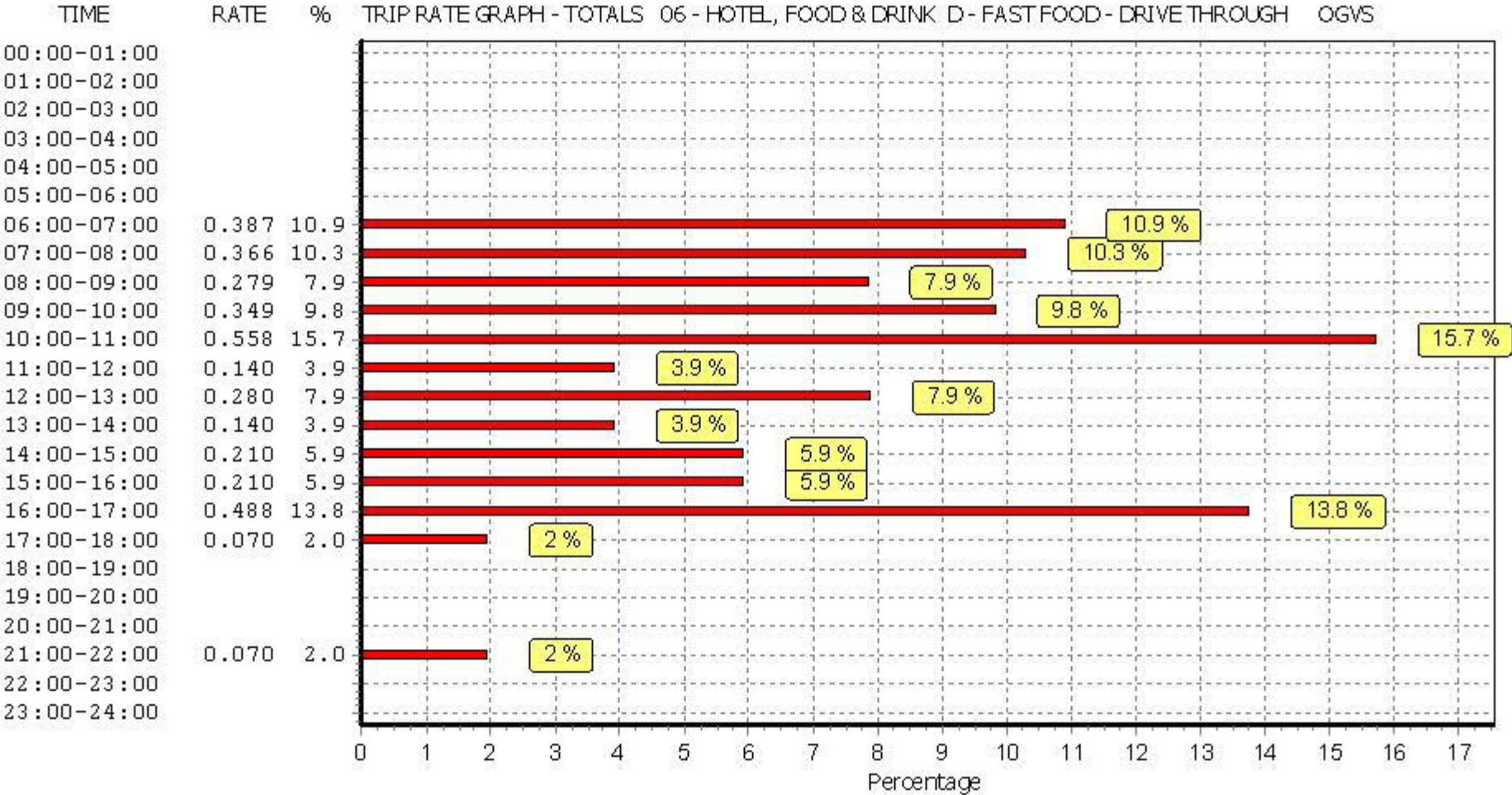
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*This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period,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



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TRIP RATE for Land Use 06 - HOTEL, FOOD &amp; DRINK/D - FAST FOOD - DRIVE THROUGH

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

| Time Range    | ARRIVALS |          |           | DEPARTURES |          |           | TOTALS   |          |           |
|---------------|----------|----------|-----------|------------|----------|-----------|----------|----------|-----------|
|               | No. Days | Ave. GFA | Trip Rate | No. Days   | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00 - 01:00 |          |          |           |            |          |           |          |          |           |
| 01:00 - 02:00 |          |          |           |            |          |           |          |          |           |
| 02:00 - 03:00 |          |          |           |            |          |           |          |          |           |
| 03:00 - 04:00 |          |          |           |            |          |           |          |          |           |
| 04:00 - 05:00 |          |          |           |            |          |           |          |          |           |
| 05:00 - 06:00 | 1        | 350      | 0.000     | 1          | 350      | 0.000     | 1        | 350      | 0.000     |
| 06:00 - 07:00 | 2        | 388      | 0.000     | 2          | 388      | 0.000     | 2        | 388      | 0.000     |
| 07:00 - 08:00 | 3        | 364      | 0.000     | 3          | 364      | 0.000     | 3        | 364      | 0.000     |
| 08:00 - 09:00 | 4        | 358      | 0.000     | 4          | 358      | 0.000     | 4        | 358      | 0.000     |
| 09:00 - 10:00 | 4        | 358      | 0.000     | 4          | 358      | 0.000     | 4        | 358      | 0.000     |
| 10:00 - 11:00 | 4        | 358      | 0.000     | 4          | 358      | 0.000     | 4        | 358      | 0.000     |
| 11:00 - 12:00 | 4        | 358      | 0.000     | 4          | 358      | 0.000     | 4        | 358      | 0.000     |
| 12:00 - 13:00 | 4        | 358      | 0.000     | 4          | 358      | 0.000     | 4        | 358      | 0.000     |
| 13:00 - 14:00 | 4        | 358      | 0.000     | 4          | 358      | 0.000     | 4        | 358      | 0.000     |
| 14:00 - 15:00 | 4        | 358      | 0.000     | 4          | 358      | 0.000     | 4        | 358      | 0.000     |
| 15:00 - 16:00 | 4        | 358      | 0.000     | 4          | 358      | 0.000     | 4        | 358      | 0.000     |
| 16:00 - 17:00 | 4        | 358      | 0.000     | 4          | 358      | 0.000     | 4        | 358      | 0.000     |
| 17:00 - 18:00 | 4        | 358      | 0.000     | 4          | 358      | 0.000     | 4        | 358      | 0.000     |
| 18:00 - 19:00 | 4        | 358      | 0.000     | 4          | 358      | 0.000     | 4        | 358      | 0.000     |
| 19:00 - 20:00 | 4        | 358      | 0.000     | 4          | 358      | 0.000     | 4        | 358      | 0.000     |
| 20:00 - 21:00 | 4        | 358      | 0.000     | 4          | 358      | 0.000     | 4        | 358      | 0.000     |
| 21:00 - 22:00 | 4        | 358      | 0.000     | 4          | 358      | 0.000     | 4        | 358      | 0.000     |
| 22:00 - 23:00 | 3        | 336      | 0.000     | 3          | 336      | 0.000     | 3        | 336      | 0.000     |
| 23:00 - 24:00 | 2        | 334      | 0.000     | 2          | 334      | 0.000     | 2        | 334      | 0.000     |
| Total Rates:  |          |          | 0.000     |            |          | 0.000     |          |          | 0.000     |

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

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

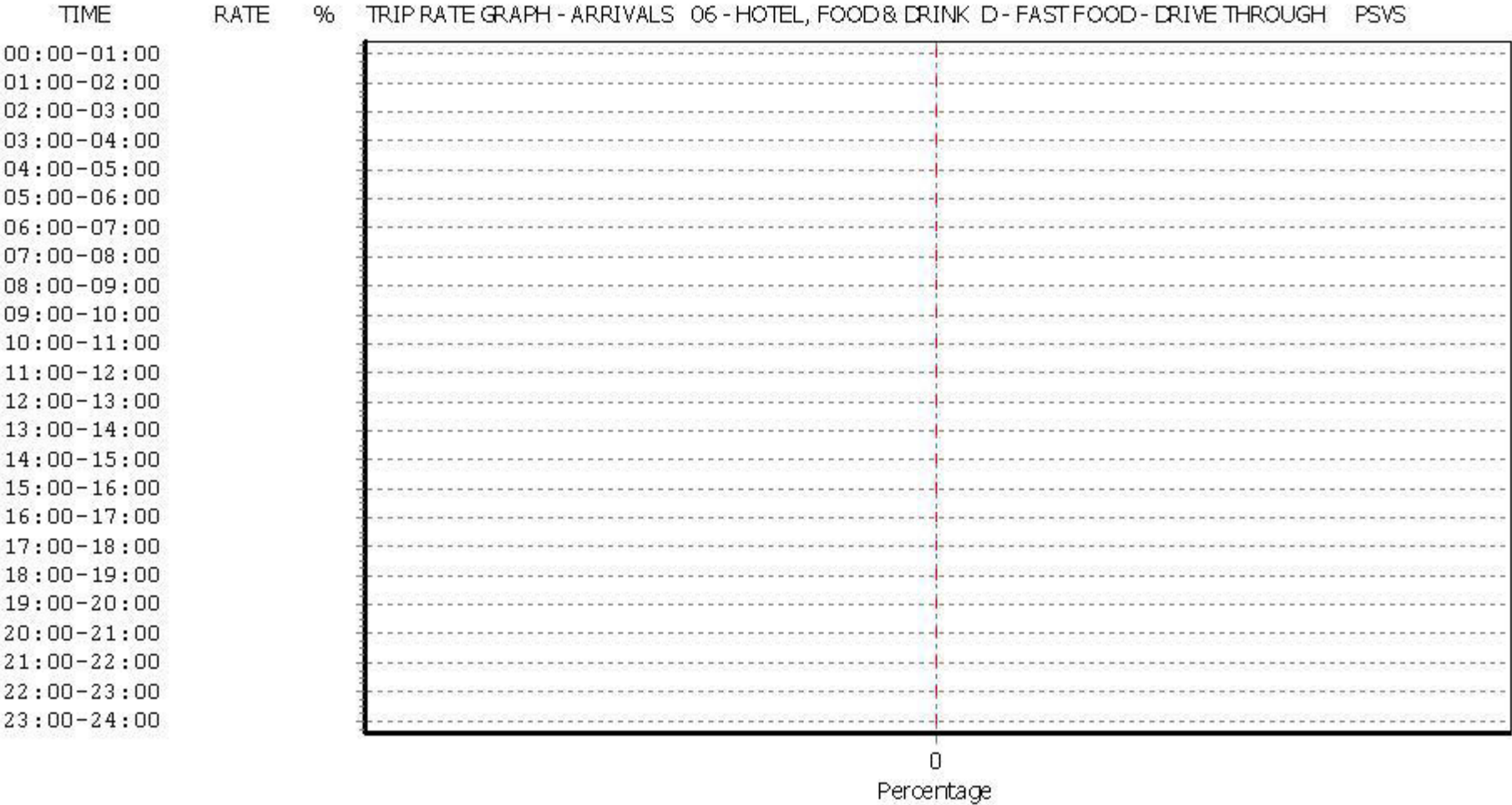
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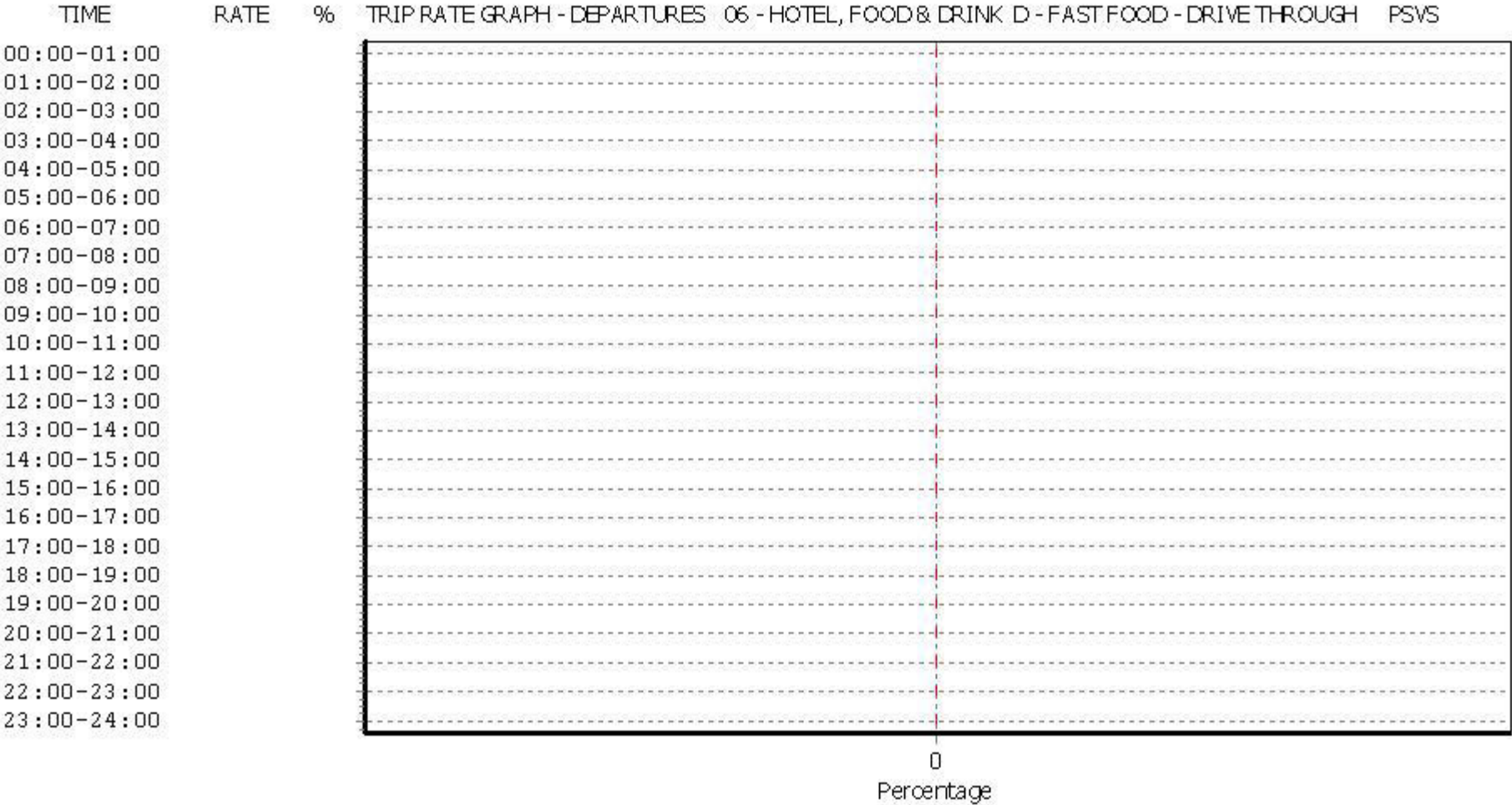
#### Parameter summary

|                                               |                        |
|-----------------------------------------------|------------------------|
| Trip rate parameter range selected:           | 317 - 425 (units: sqm) |
| Survey date range:                            | 01/01/10 - 19/09/17    |
| Number of weekdays (Monday-Friday):           | 0                      |
| Number of Saturdays:                          | 4                      |
| Number of Sundays:                            | 0                      |
| Surveys automatically removed from selection: | 0                      |
| Surveys manually removed from selection:      | 0                      |

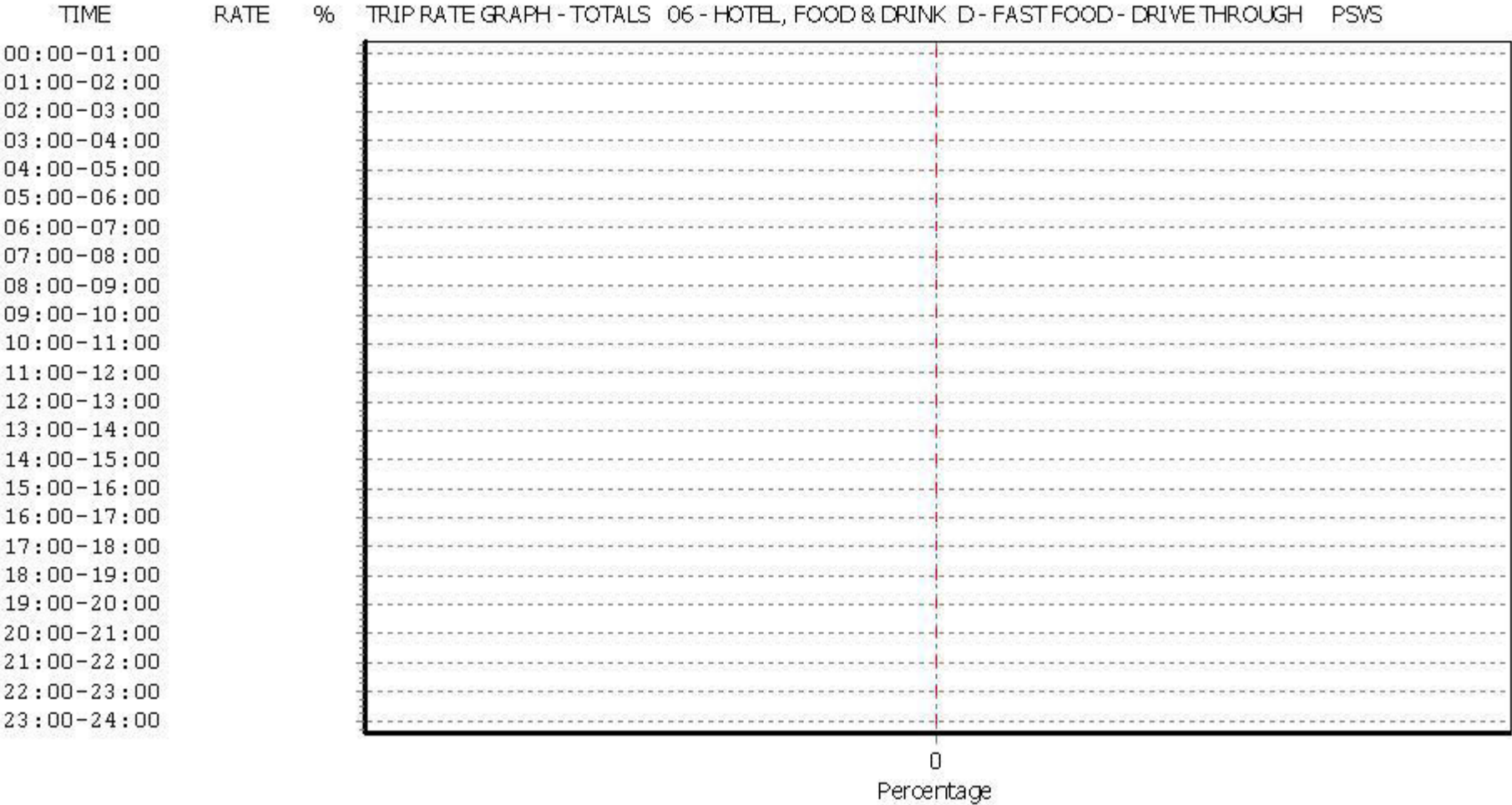
*This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



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



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



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

TRIP RATE for Land Use 06 - HOTEL, FOOD &amp; DRINK/D - FAST FOOD - DRIVE THROUGH

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

| Time Range    | ARRIVALS |            |              | DEPARTURES |            |              | TOTALS   |            |              |
|---------------|----------|------------|--------------|------------|------------|--------------|----------|------------|--------------|
|               | No. Days | Ave. GFA   | Trip Rate    | No. Days   | Ave. GFA   | Trip Rate    | No. Days | Ave. GFA   | Trip Rate    |
| 00:00 - 01:00 |          |            |              |            |            |              |          |            |              |
| 01:00 - 02:00 |          |            |              |            |            |              |          |            |              |
| 02:00 - 03:00 |          |            |              |            |            |              |          |            |              |
| 03:00 - 04:00 |          |            |              |            |            |              |          |            |              |
| 04:00 - 05:00 |          |            |              |            |            |              |          |            |              |
| 05:00 - 06:00 | 1        | 350        | 0.000        | 1          | 350        | 0.000        | 1        | 350        | 0.000        |
| 06:00 - 07:00 | 2        | 388        | 0.129        | 2          | 388        | 0.000        | 2        | 388        | 0.129        |
| 07:00 - 08:00 | 3        | 364        | 0.000        | 3          | 364        | 0.000        | 3        | 364        | 0.000        |
| 08:00 - 09:00 | 4        | 358        | 0.070        | 4          | 358        | 0.000        | 4        | 358        | 0.070        |
| 09:00 - 10:00 | 4        | 358        | 0.070        | 4          | 358        | 0.000        | 4        | 358        | 0.070        |
| 10:00 - 11:00 | 4        | 358        | 0.000        | 4          | 358        | 0.070        | 4        | 358        | 0.070        |
| 11:00 - 12:00 | 4        | 358        | 0.000        | 4          | 358        | 0.000        | 4        | 358        | 0.000        |
| 12:00 - 13:00 | 4        | 358        | 0.000        | 4          | 358        | 0.000        | 4        | 358        | 0.000        |
| 13:00 - 14:00 | 4        | 358        | 0.140        | 4          | 358        | 0.000        | 4        | 358        | 0.140        |
| 14:00 - 15:00 | <b>4</b> | <b>358</b> | <b>0.209</b> | <b>4</b>   | <b>358</b> | <b>0.349</b> | <b>4</b> | <b>358</b> | <b>0.558</b> |
| 15:00 - 16:00 | 4        | 358        | 0.000        | 4          | 358        | 0.140        | 4        | 358        | 0.140        |
| 16:00 - 17:00 | 4        | 358        | 0.140        | 4          | 358        | 0.140        | 4        | 358        | 0.280        |
| 17:00 - 18:00 | 4        | 358        | 0.000        | 4          | 358        | 0.000        | 4        | 358        | 0.000        |
| 18:00 - 19:00 | 4        | 358        | 0.070        | 4          | 358        | 0.070        | 4        | 358        | 0.140        |
| 19:00 - 20:00 | 4        | 358        | 0.000        | 4          | 358        | 0.000        | 4        | 358        | 0.000        |
| 20:00 - 21:00 | 4        | 358        | 0.070        | 4          | 358        | 0.070        | 4        | 358        | 0.140        |
| 21:00 - 22:00 | 4        | 358        | 0.000        | 4          | 358        | 0.000        | 4        | 358        | 0.000        |
| 22:00 - 23:00 | 3        | 336        | 0.000        | 3          | 336        | 0.000        | 3        | 336        | 0.000        |
| 23:00 - 24:00 | 2        | 334        | 0.000        | 2          | 334        | 0.000        | 2        | 334        | 0.000        |
| Total Rates:  |          |            | 0.898        |            |            | 0.839        |          |            | 1.737        |

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

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

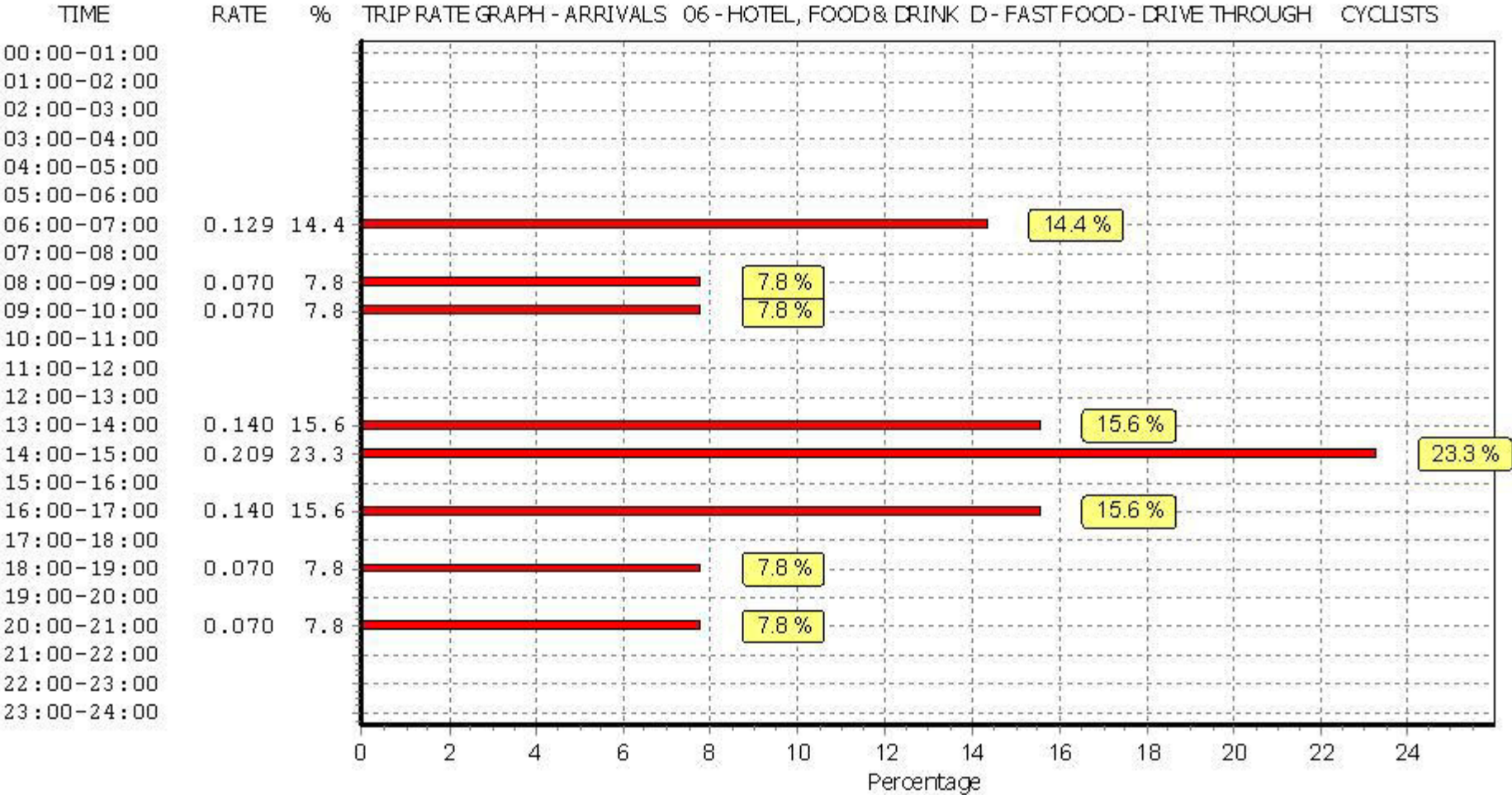
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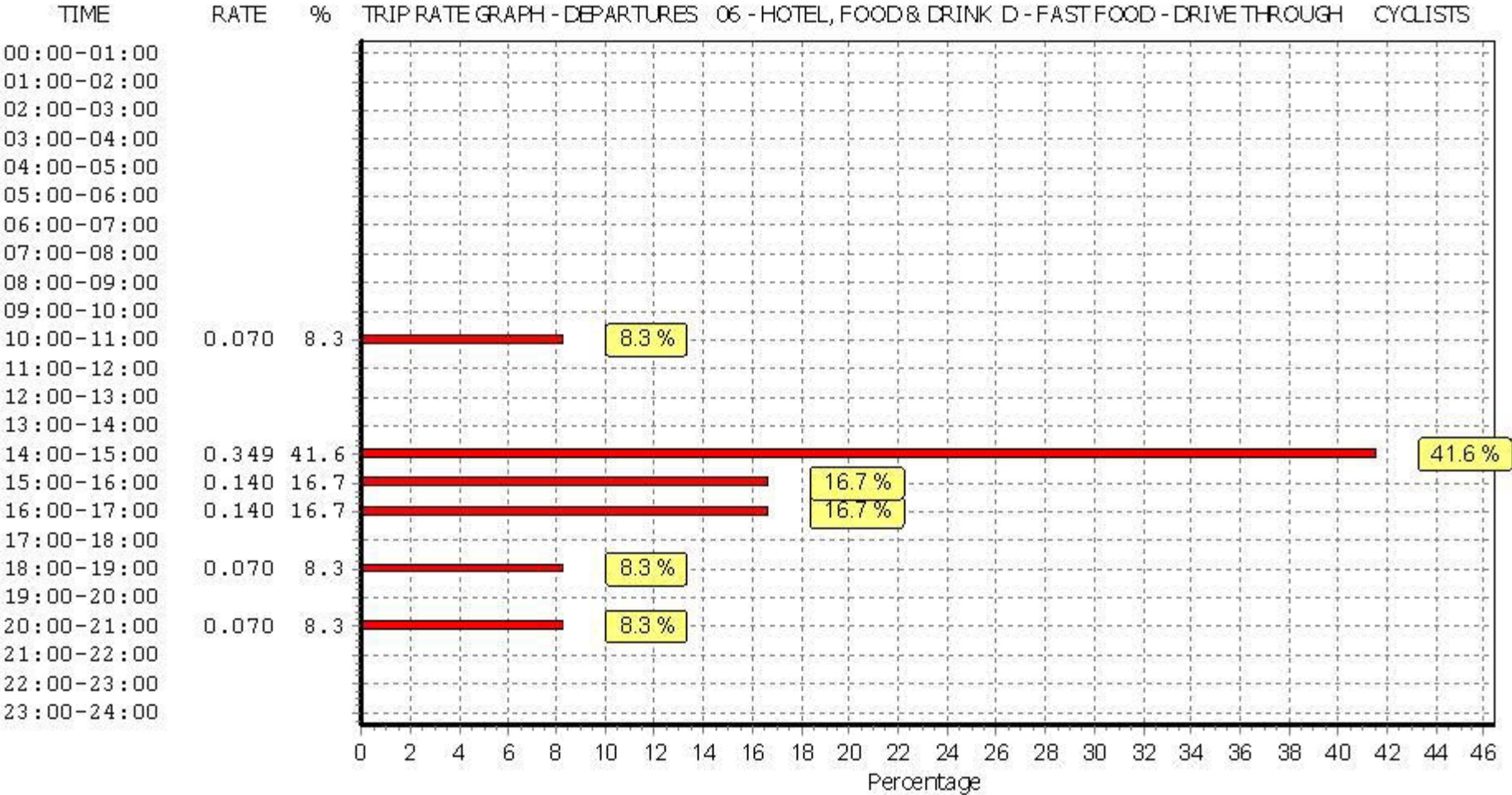
#### Parameter summary

|                                               |                        |
|-----------------------------------------------|------------------------|
| Trip rate parameter range selected:           | 317 - 425 (units: sqm) |
| Survey date range:                            | 01/01/10 - 19/09/17    |
| Number of weekdays (Monday-Friday):           | 0                      |
| Number of Saturdays:                          | 4                      |
| Number of Sundays:                            | 0                      |
| Surveys automatically removed from selection: | 0                      |
| Surveys manually removed from selection:      | 0                      |

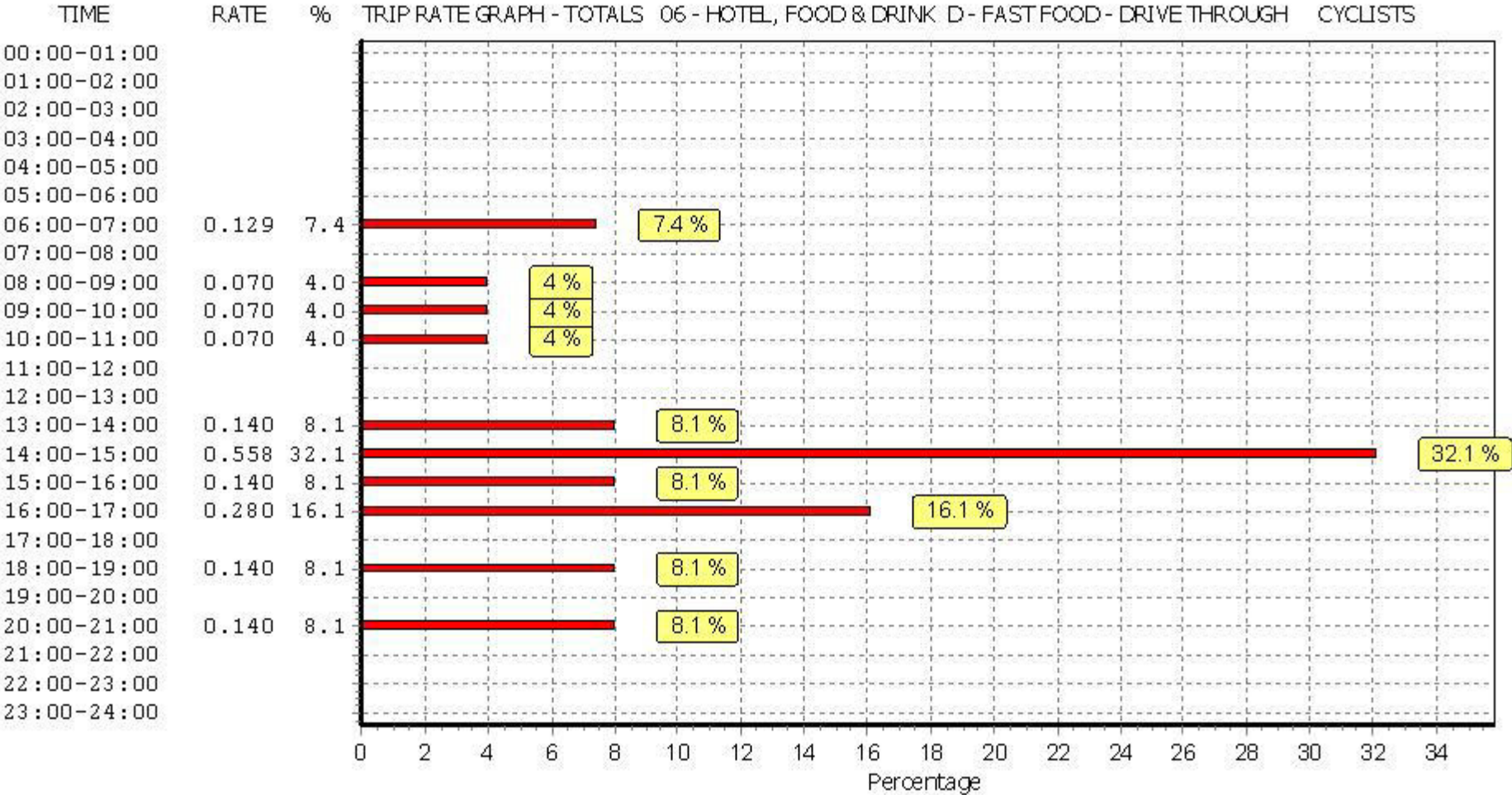
*This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



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



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

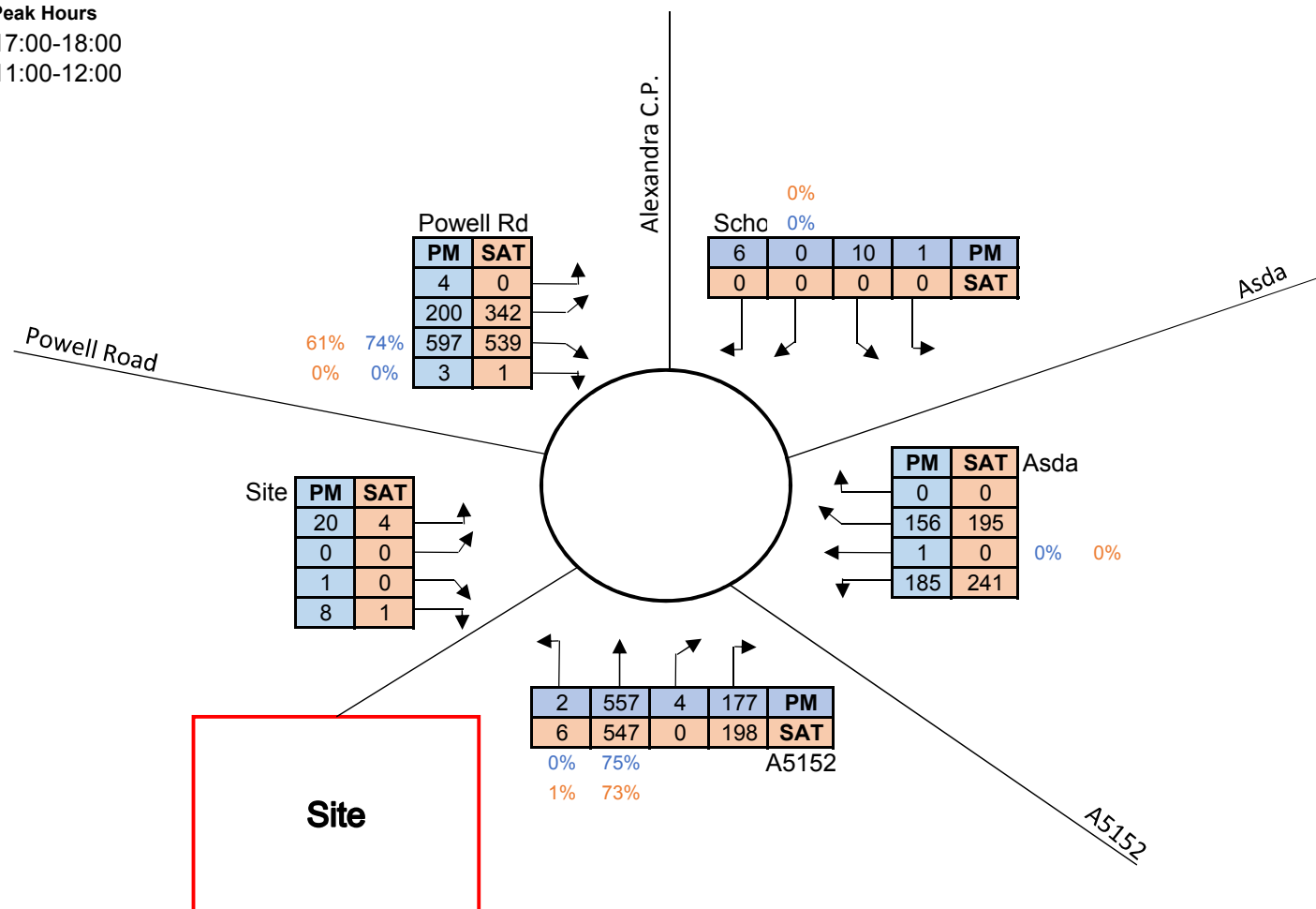


This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through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

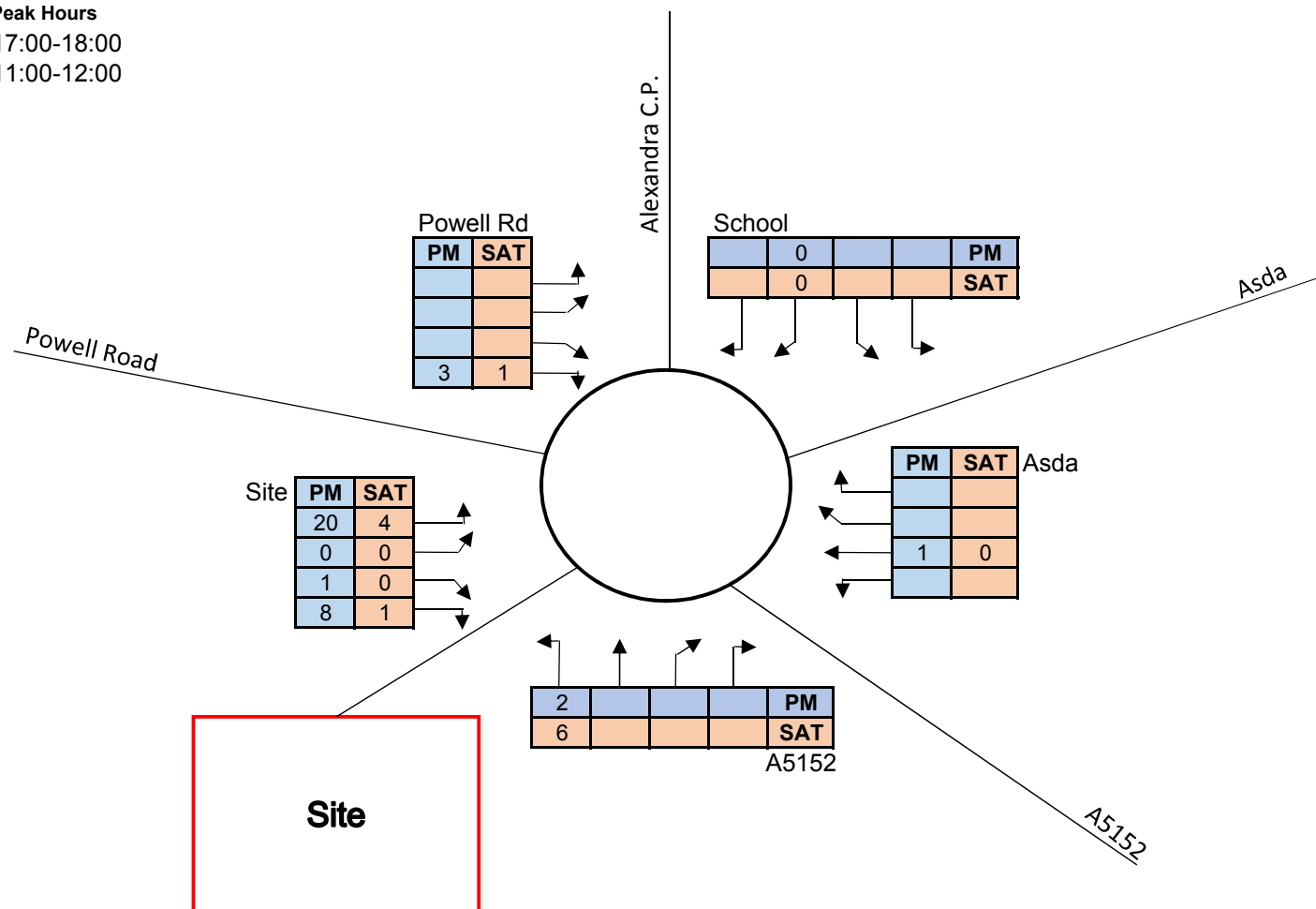
**S|C|P**

## **APPENDIX 5**

| Peak Hours |             |
|------------|-------------|
| PM         | 17:00-18:00 |
| SAT        | 11:00-12:00 |

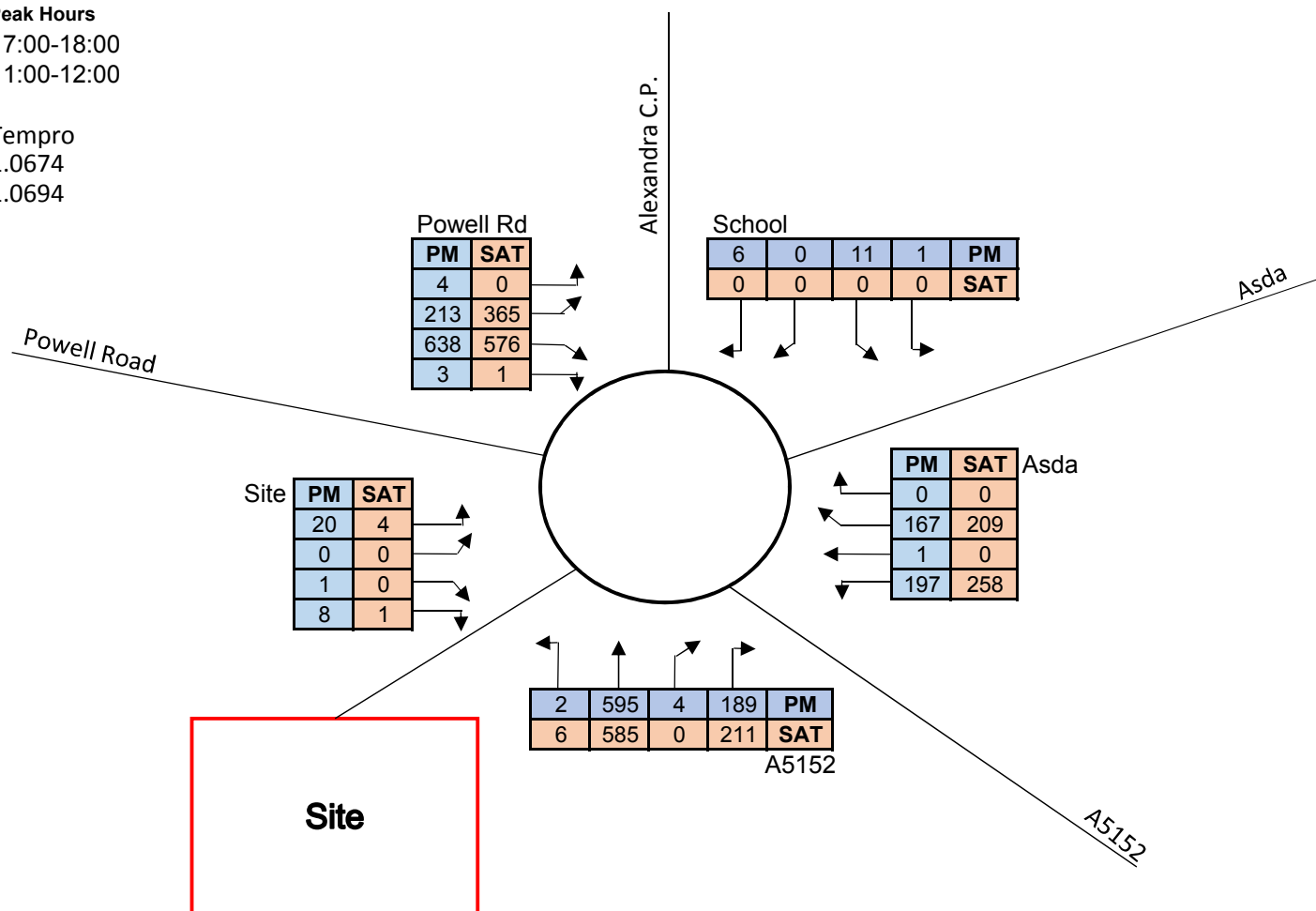


| Peak Hours |             |
|------------|-------------|
| PM         | 17:00-18:00 |
| SAT        | 11:00-12:00 |

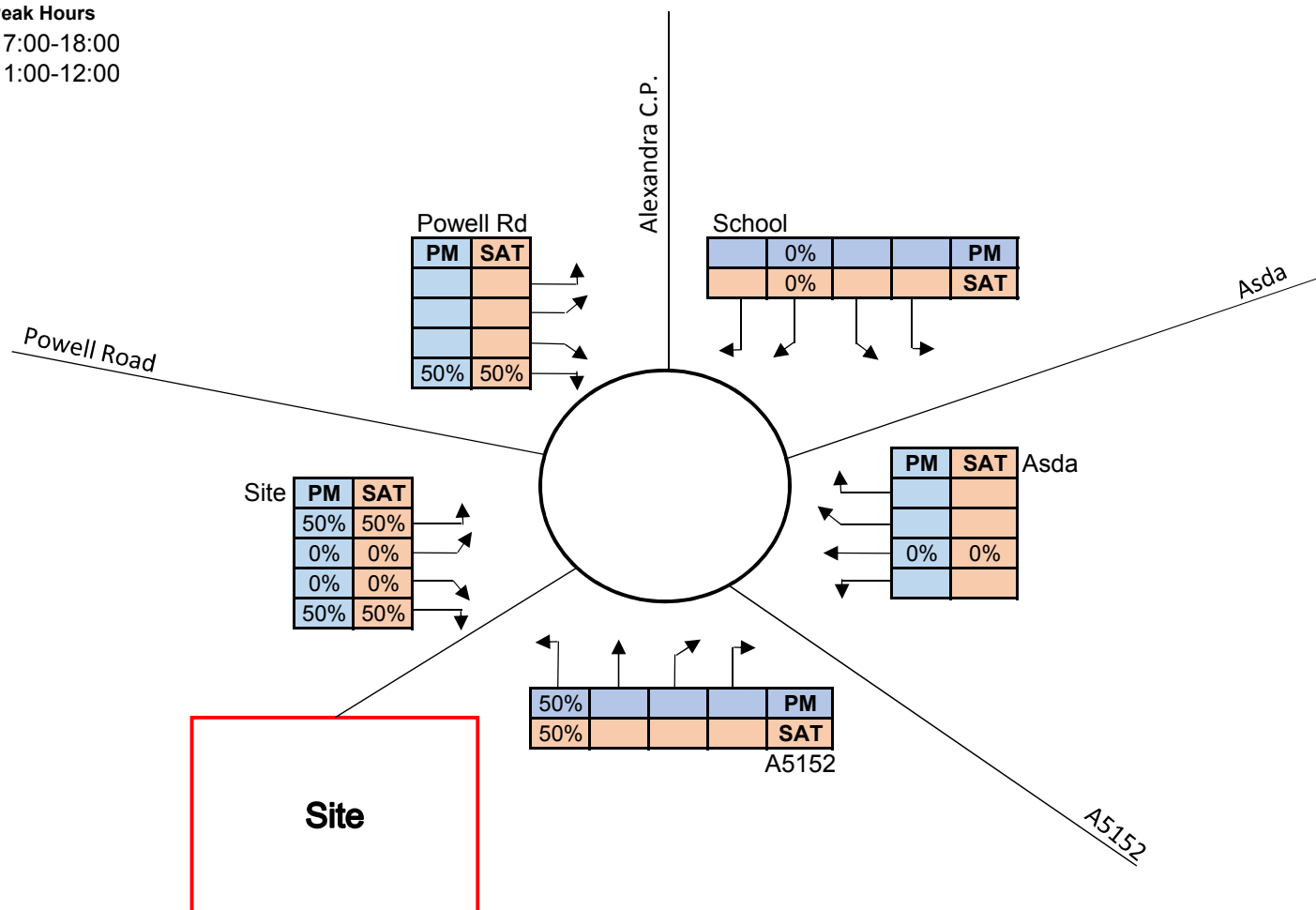


| Peak Hours |             |
|------------|-------------|
| PM         | 17:00-18:00 |
| SAT        | 11:00-12:00 |

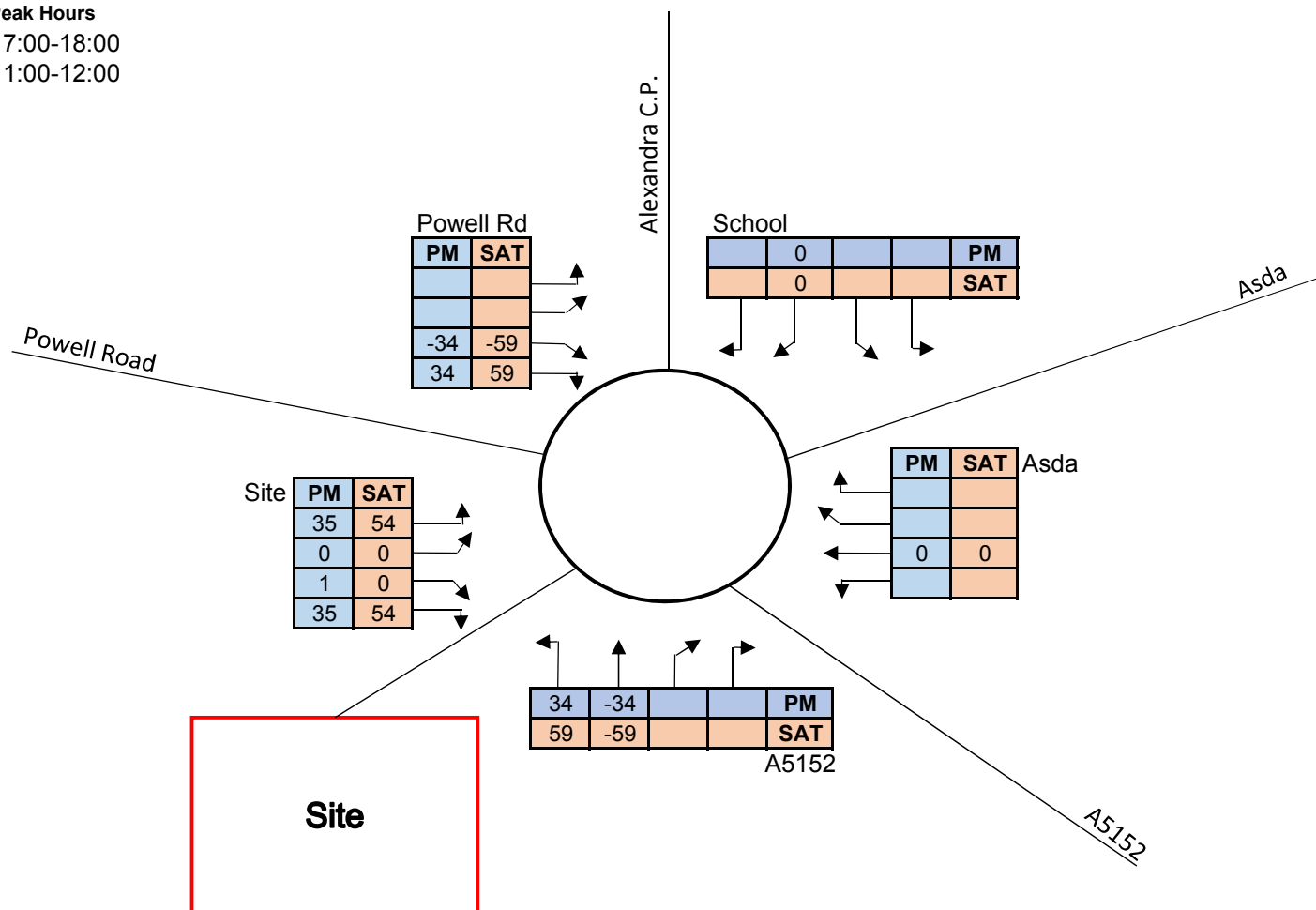
| Tempro |        |
|--------|--------|
| PM     | 1.0674 |
| SAT    | 1.0694 |



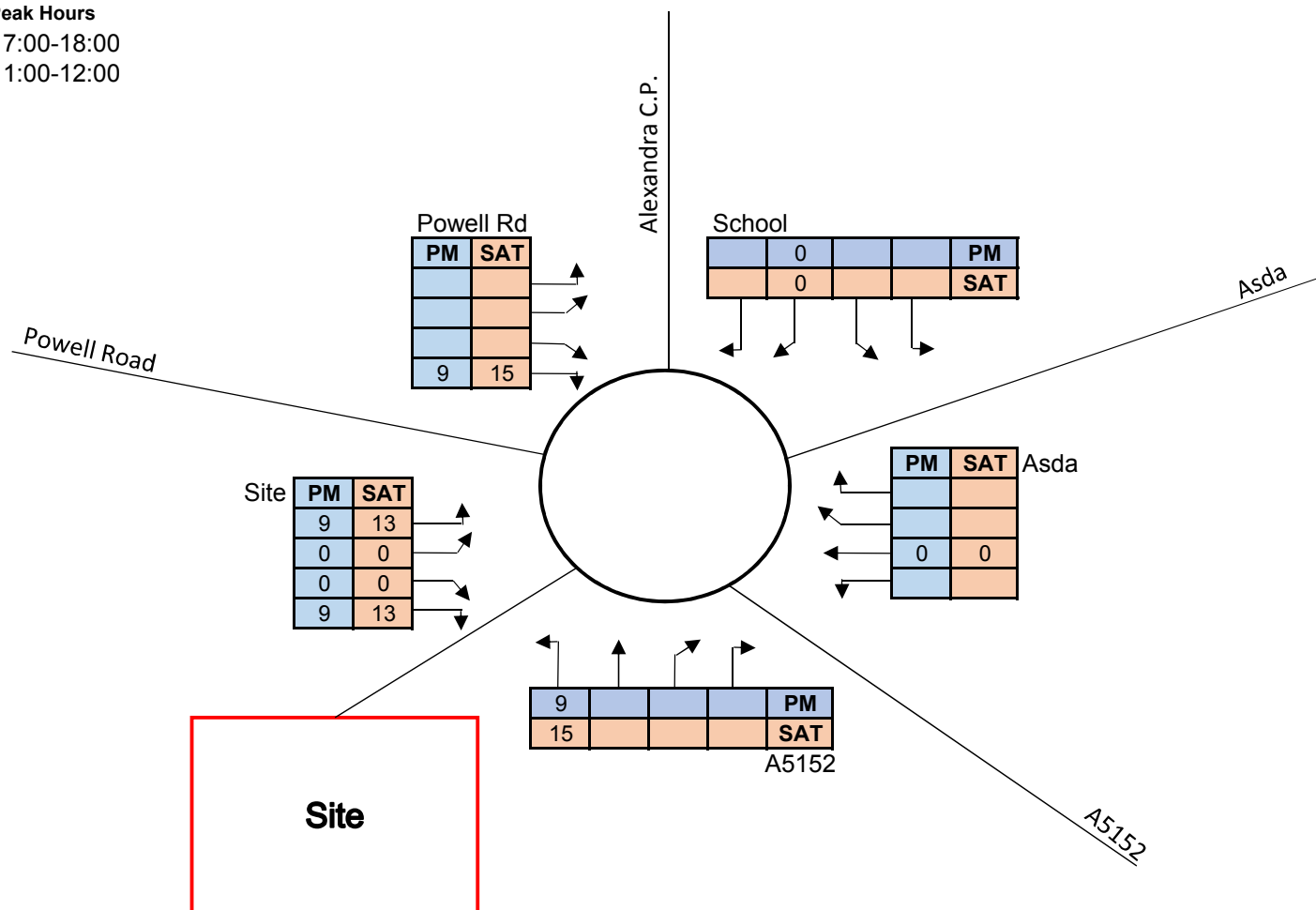
| Peak Hours |             |
|------------|-------------|
| PM         | 17:00-18:00 |
| SAT        | 11:00-12:00 |



| Peak Hours |             |
|------------|-------------|
| PM         | 17:00-18:00 |
| SAT        | 11:00-12:00 |

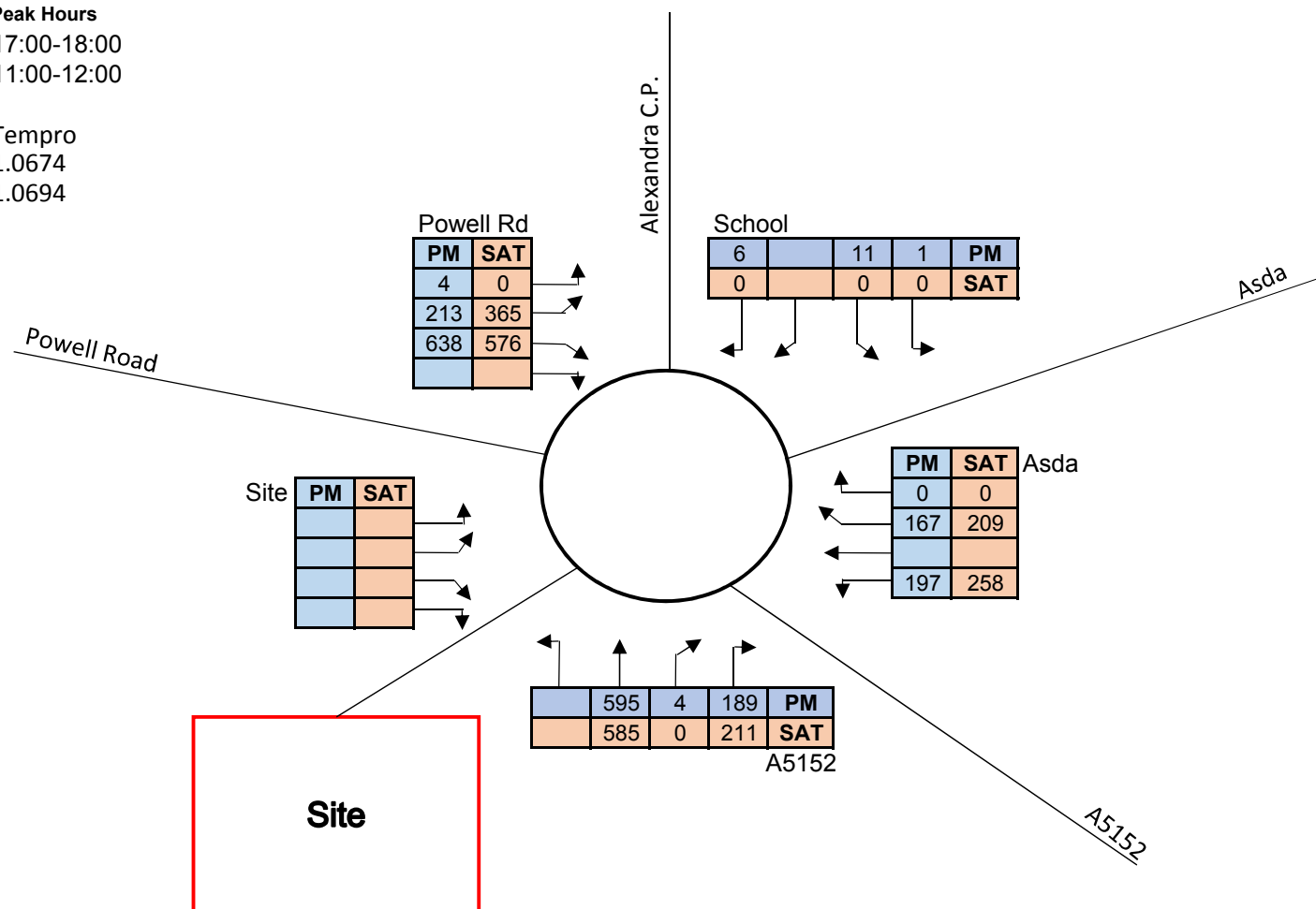


| Peak Hours |             |
|------------|-------------|
| PM         | 17:00-18:00 |
| SAT        | 11:00-12:00 |



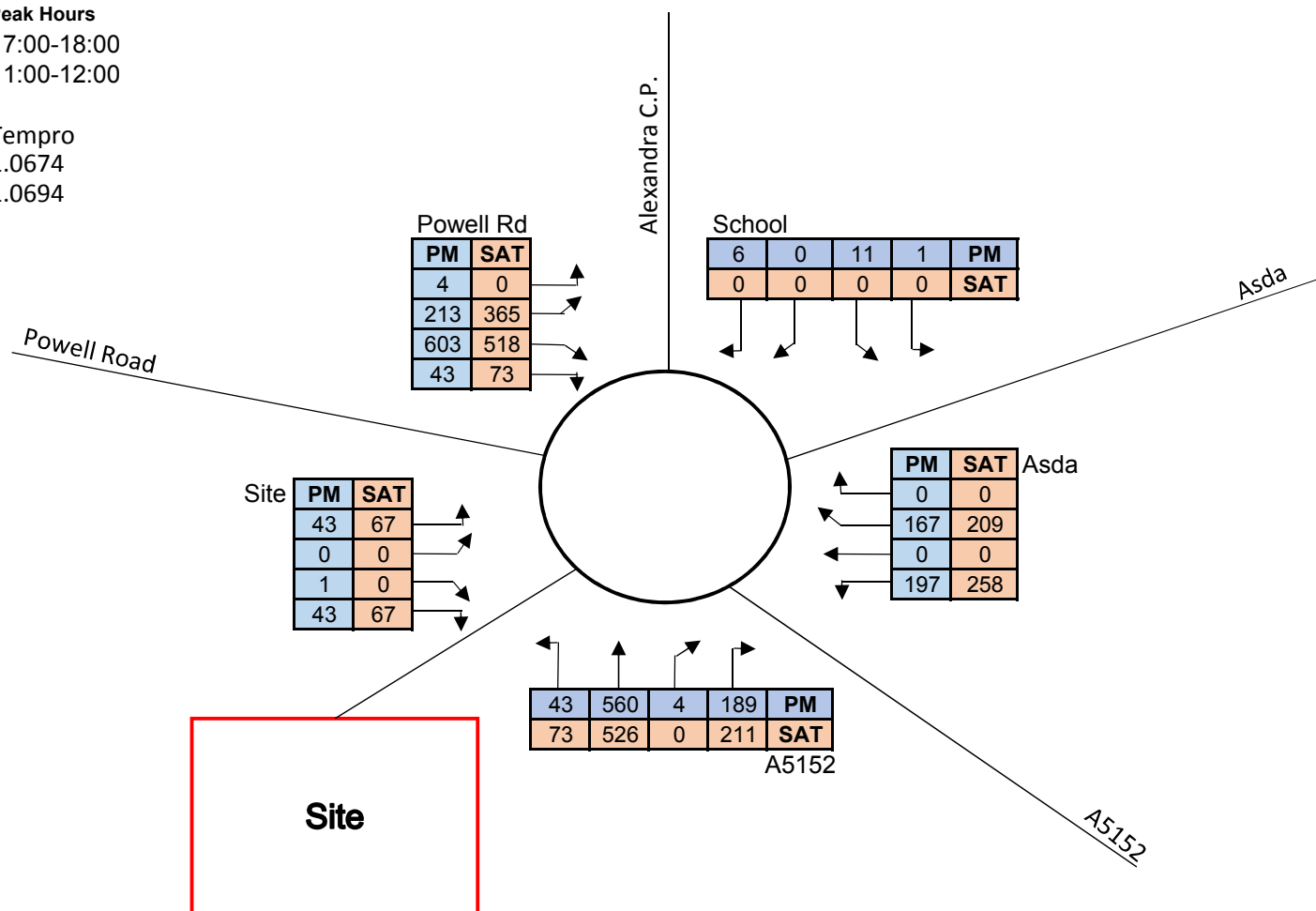
| Peak Hours |             |
|------------|-------------|
| PM         | 17:00-18:00 |
| SAT        | 11:00-12:00 |

| Tempro |        |
|--------|--------|
| PM     | 1.0674 |
| SAT    | 1.0694 |



| Peak Hours |             |
|------------|-------------|
| PM         | 17:00-18:00 |
| SAT        | 11:00-12:00 |

| Tempro |        |
|--------|--------|
| PM     | 1.0674 |
| SAT    | 1.0694 |



**S|C|P**

## **APPENDIX 6**

WEEKDAY PM 1.0674  
Wrexham 009

TEMPRO main form

data selections  
trip end selections  
trip end by time period selections  
elect time period:  
Weekday PM peak period (1600 - 1859)

Reset Selections

Results

Select data type

☒ Growth factors  
☐ Future year minus base year  
☐ Base year data  
☐ Future year data

\*Italicised results indicate that there is a lower level of confidence in data presented at the zonal level than when aggregated to higher geographical levels

Car Driver Combined Modes

| Area Description |             | All Purposes |             |
|------------------|-------------|--------------|-------------|
| Level            | Name        | Origin       | Destination |
| Region           | WALES       | 1.0408       | 1.0408      |
| County           | North Wales | 1.0361       | 1.0367      |
| Authority        | Wrexham     | 1.0426       | 1.0511      |
| W02000086        | Wrexham 009 | 1.0456       | 1.0561      |

NTM Traffic Growth Calculations

1: Select NTM Dataset:

| NTM Dataset Description | From | To   |
|-------------------------|------|------|
| NTM AF15 Dataset        | 2010 | 2040 |
| NTM AF09 Dataset        | 2003 | 2035 |
| NTM AF08 Dataset        | 2003 | 2025 |

2: Select Areas to make up the geographic region:

☒ WALES  
☒ North Wales  
☒ Wrexham  
☒ Wrexham 009 (W02000086)

3: Select area type:

☐ Urban  
☐ Rural  
☒ All

4: Select road type:

☐ Motorway  
☐ Trunk  
☐ Principal  
☐ Minor  
☒ All

5: Select which area it serves:

☒ Region  
☐ England

Calculate the adjusted local growth figure

Results

| Level     | Area        | Local Growth Figure |
|-----------|-------------|---------------------|
| Region    | WALES       | 1.0572              |
| County    | North Wales | 1.0528              |
| Authority | Wrexham     | 1.0634              |
| W02000086 | Wrexham 009 | 1.0674              |

Saturday 1.0694  
Wrexham 009

TEMPRO main form

Results

Select data type

☒ Growth factors  
☐ Future year minus base year  
☐ Base year data  
☐ Future year data

\*Italicised results indicate that there is a lower level of confidence in data presented at the zonal level than when aggregated to higher geographical levels

Car Driver Combined Modes

Area Description

| Level     | Name        | Origin | Destination |
|-----------|-------------|--------|-------------|
| Region    | WALES       | 1.0437 | 1.0437      |
| County    | North Wales | 1.0393 | 1.0393      |
| Authority | Wrexham     | 1.05   | 1.0499      |
| W02000086 | Wrexham 009 | 1.053  | 1.0526      |

NTM Traffic Growth Calculations

1: Select NTM Dataset:

| NTM Dataset Description | From | To   |
|-------------------------|------|------|
| NTM AF15 Dataset        | 2010 | 2040 |
| NTM AF09 Dataset        | 2003 | 2035 |
| NTM AF08 Dataset        | 2003 | 2025 |

2: Select Areas to make up the geographic region:

☒ WALES  
☒ North Wales  
☒ Wrexham  
☒ Wrexham 009 (W02000086)

3: Select area type:

☐ Urban  
☐ Rural  
☒ All

4: Select road type:

☐ Motorway  
☐ Trunk  
☐ Principal  
☐ Minor  
☒ All

5: Select which area it serves:

☒ Region  
☐ England

Calculate the adjusted local growth figure

Results

| Level     | Area        | Local Growth Figure |
|-----------|-------------|---------------------|
| Region    | WALES       | 1.0602              |
| County    | North Wales | 1.0557              |
| Authority | Wrexham     | 1.0665              |
| W02000086 | Wrexham 009 | 1.0694              |

**S|C|P**

## **APPENDIX 7**

| Junctions 9                                                                                                                                                      |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| ARCADY 9 - Roundabout Module                                                                                                                                     |  |  |  |
| Version: 9.0.2.5947<br>© Copyright TRL Limited, 2017                                                                                                             |  |  |  |
| For sales and distribution information, program advice and maintenance, contact TRL:<br>+44 (0)1344 770558 software@trl.co.uk www.trlsoftware.co.uk              |  |  |  |
| 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: Powell Rd A5152 Roundabout.j9

Path: \\SCP-SERVER\Projects\Job Library\2018\18111 - Lidl, Wrexham Police Station, Wrexham\Traffic Data\ARCADY

Report generation date: 10/04/2018 10:40:09

## «Base 2023 with Lidl, SAT

- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

## Summary of junction performance

|                           | PM          |           |      |     | SAT         |           |      |     |
|---------------------------|-------------|-----------|------|-----|-------------|-----------|------|-----|
|                           | Queue (PCU) | Delay (s) | RFC  | LOS | Queue (PCU) | Delay (s) | RFC  | LOS |
| Base 2018                 |             |           |      |     |             |           |      |     |
| 1 - Asda                  | 0.5         | 4.69      | 0.31 | A   | 0.7         | 4.95      | 0.37 | A   |
| 2 - A5152                 | 0.8         | 3.73      | 0.43 | A   | 0.9         | 3.86      | 0.45 | A   |
| 3 - Lidl Site             | 0.0         | 4.97      | 0.04 | A   | 0.0         | 4.97      | 0.01 | A   |
| 4 - Powell Road           | 0.7         | 2.89      | 0.39 | A   | 0.8         | 3.11      | 0.43 | A   |
| 5 - Alexandra C.P. School | 0.0         | 4.82      | 0.02 | A   | 0.0         | 0.00      | 0.00 | A   |
| Base 2023                 |             |           |      |     |             |           |      |     |
| 1 - Asda                  | 0.6         | 5.03      | 0.34 | A   | 0.8         | 5.36      | 0.41 | A   |
| 2 - A5152                 | 1.0         | 3.97      | 0.47 | A   | 1.0         | 4.14      | 0.48 | A   |
| 3 - Lidl Site             | 0.0         | 5.23      | 0.04 | A   | 0.0         | 5.25      | 0.01 | A   |
| 4 - Powell Road           | 0.8         | 3.05      | 0.42 | A   | 1.0         | 3.31      | 0.46 | A   |
| 5 - Alexandra C.P. School | 0.0         | 5.11      | 0.02 | A   | 0.0         | 0.00      | 0.00 | A   |
| Base 2023 with Lidl       |             |           |      |     |             |           |      |     |
| 1 - Asda                  | 0.6         | 5.03      | 0.34 | A   | 0.8         | 5.36      | 0.41 | A   |
| 2 - A5152                 | 1.0         | 3.97      | 0.47 | A   | 1.0         | 4.14      | 0.48 | A   |
| 3 - Lidl Site             | 0.0         | 5.23      | 0.04 | A   | 0.0         | 5.25      | 0.01 | A   |
| 4 - Powell Road           | 0.8         | 3.05      | 0.42 | A   | 1.0         | 3.31      | 0.46 | A   |
| 5 - Alexandra C.P. School | 0.0         | 5.11      | 0.02 | A   | 0.0         | 0.00      | 0.00 | A   |

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

|                    |                   |
|--------------------|-------------------|
| <b>Title</b>       | (untitled)        |
| <b>Location</b>    |                   |
| <b>Site number</b> |                   |
| <b>Date</b>        | 09/04/2018        |
| <b>Version</b>     |                   |
| <b>Status</b>      | (new file)        |
| <b>Identifier</b>  |                   |
| <b>Client</b>      |                   |
| <b>Jobnumber</b>   |                   |
| <b>Enumerator</b>  | SCP\Jeanne Watrin |
| <b>Description</b> |                   |

## Units

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

## Analysis Options

| Calculate Queue Percentiles | Calculate residual capacity | RFC Threshold | Average Delay threshold (s) | Queue threshold (PCU) |
|-----------------------------|-----------------------------|---------------|-----------------------------|-----------------------|
|                             |                             | 0.85          | 36.00                       | 20.00                 |

## Analysis Set Details

| ID | Network flow scaling factor (%) |
|----|---------------------------------|
| A1 | 100.000                         |

## Demand Set Details

| ID | Scenario name       | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|----|---------------------|------------------|----------------------|--------------------|---------------------|---------------------------|
| D6 | Base 2023 with Lidl | SAT              | ONE HOUR             | 11:00              | 12:30               | 15                        |

# Base 2023 with Lidl, SAT

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

| Junction | Name     | Junction Type       | Arm order     | Junction Delay (s) | Junction LOS |
|----------|----------|---------------------|---------------|--------------------|--------------|
| 1        | untitled | Standard Roundabout | 1, 2, 3, 4, 5 | 4.04               | A            |

### Junction Network Options

| Driving side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

## Arms

### Arms

| Arm | Name                  | Description |
|-----|-----------------------|-------------|
| 1   | Asda                  |             |
| 2   | A5152                 |             |
| 3   | Lidl Site             |             |
| 4   | Powell Road           |             |
| 5   | Alexandra C.P. School |             |

### Roundabout Geometry

| Arm                       | V - Approach road half-width (m) | E - Entry width (m) | I' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Exit only |
|---------------------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| 1 - Asda                  | 3.80                             | 6.50                | 15.0                            | 6.5                  | 13.0                              | 0.0                                |           |
| 2 - A5152                 | 6.60                             | 6.60                | 0.0                             | 6.6                  | 13.0                              | 0.0                                |           |
| 3 - Lidl Site             | 4.90                             | 4.90                | 0.0                             | 4.9                  | 13.0                              | 0.0                                |           |
| 4 - Powell Road           | 6.88                             | 8.10                | 10.0                            | 8.1                  | 13.0                              | 0.0                                |           |
| 5 - Alexandra C.P. School | 4.02                             | 6.13                | 6.5                             | 6.1                  | 13.0                              | 0.0                                |           |

### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

| Arm                       | Final slope | Final intercept (PCU/hr) |
|---------------------------|-------------|--------------------------|
| 1 - Asda                  | 0.662       | 1675                     |
| 2 - A5152                 | 0.732       | 2009                     |
| 3 - Lidl Site             | 0.593       | 1416                     |
| 4 - Powell Road           | 0.827       | 2426                     |
| 5 - Alexandra C.P. School | 0.627       | 1522                     |

The slope and intercept shown above include any corrections and adjustments.

## Traffic Demand

| Default vehicle mix | Vehicle mix source | PCU Factor for a HV (PCU) |
|---------------------|--------------------|---------------------------|
| ✓                   | HV Percentages     | 2.00                      |

## Demand overview (Traffic)

| Arm                       | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---------------------------|------------|--------------|-------------------------|--------------------|
| 1 - Asda                  |            | ✓            | 467                     | 100.000            |
| 2 - A5152                 |            | ✓            | 802                     | 100.000            |
| 3 - Lidl Site             |            | ✓            | 5                       | 100.000            |
| 4 - Powell Road           |            | ✓            | 942                     | 100.000            |
| 5 - Alexandra C.P. School |            | ✓            | 0                       | 100.000            |

## Origin-Destination Data

### Demand (PCU/hr)

|      | To                        |          |           |               |                 |                           |
|------|---------------------------|----------|-----------|---------------|-----------------|---------------------------|
|      |                           | 1 - Asda | 2 - A5152 | 3 - Lidl Site | 4 - Powell Road | 5 - Alexandra C.P. School |
| From | 1 - Asda                  | 0        | 258       | 0             | 209             | 0                         |
|      | 2 - A5152                 | 211      | 0         | 6             | 585             | 0                         |
|      | 3 - Lidl Site             | 0        | 1         | 0             | 4               | 0                         |
|      | 4 - Powell Road           | 365      | 576       | 1             | 0               | 0                         |
|      | 5 - Alexandra C.P. School | 0        | 0         | 0             | 0               | 0                         |

## Vehicle Mix

### Heavy Vehicle Percentages

|      | To                        |          |           |               |                 |                           |
|------|---------------------------|----------|-----------|---------------|-----------------|---------------------------|
|      |                           | 1 - Asda | 2 - A5152 | 3 - Lidl Site | 4 - Powell Road | 5 - Alexandra C.P. School |
| From | 1 - Asda                  | 10       | 10        | 10            | 10              | 10                        |
|      | 2 - A5152                 | 10       | 10        | 10            | 10              | 10                        |
|      | 3 - Lidl Site             | 10       | 10        | 10            | 10              | 10                        |
|      | 4 - Powell Road           | 10       | 10        | 10            | 10              | 10                        |
|      | 5 - Alexandra C.P. School | 10       | 10        | 10            | 10              | 10                        |

## Results

### Results Summary for whole modelled period

| Arm                       | Max RFC | Max delay (s) | Max Queue (PCU) | Max LOS |
|---------------------------|---------|---------------|-----------------|---------|
| 1 - Asda                  | 0.41    | 5.36          | 0.8             | A       |
| 2 - A5152                 | 0.48    | 4.14          | 1.0             | A       |
| 3 - Lidl Site             | 0.01    | 5.25          | 0.0             | A       |
| 4 - Powell Road           | 0.46    | 3.31          | 1.0             | A       |
| 5 - Alexandra C.P. School | 0.00    | 0.00          | 0.0             | A       |

### Main Results for each time segment

#### 11:00 - 11:15

| Arm                       | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | LOS |
|---------------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-----------|-----|
| 1 - Asda                  | 352                   | 434                       | 1387              | 0.253 | 350                 | 0.4             | 3.812     | A   |
| 2 - A5152                 | 604                   | 157                       | 1894              | 0.319 | 602                 | 0.5             | 3.058     | A   |
| 3 - Lidl Site             | 4                     | 754                       | 969               | 0.004 | 4                   | 0.0             | 4.104     | A   |
| 4 - Powell Road           | 709                   | 159                       | 2295              | 0.309 | 707                 | 0.5             | 2.491     | A   |
| 5 - Alexandra C.P. School | 0                     | 866                       | 978               | 0.000 | 0                   | 0.0             | 0.000     | A   |

### 11:15 - 11:30

| Arm                       | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | LOS |
|---------------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-----------|-----|
| 1 - Asda                  | 420                   | 519                       | 1331              | 0.315 | 419                 | 0.5             | 4.340     | A   |
| 2 - A5152                 | 721                   | 189                       | 1871              | 0.385 | 720                 | 0.7             | 3.438     | A   |
| 3 - Lidl Site             | 4                     | 903                       | 880               | 0.005 | 4                   | 0.0             | 4.520     | A   |
| 4 - Powell Road           | 847                   | 190                       | 2269              | 0.373 | 846                 | 0.7             | 2.782     | A   |
| 5 - Alexandra C.P. School | 0                     | 1037                      | 871               | 0.000 | 0                   | 0.0             | 0.000     | A   |

### 11:30 - 11:45

| Arm                       | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | LOS |
|---------------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-----------|-----|
| 1 - Asda                  | 514                   | 636                       | 1254              | 0.410 | 513                 | 0.8             | 5.338     | A   |
| 2 - A5152                 | 883                   | 231                       | 1840              | 0.480 | 882                 | 1.0             | 4.125     | A   |
| 3 - Lidl Site             | 6                     | 1105                      | 761               | 0.007 | 5                   | 0.0             | 5.244     | A   |
| 4 - Powell Road           | 1037                  | 233                       | 2234              | 0.464 | 1036                | 0.9             | 3.304     | A   |
| 5 - Alexandra C.P. School | 0                     | 1269                      | 725               | 0.000 | 0                   | 0.0             | 0.000     | A   |

### 11:45 - 12:00

| Arm                       | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | LOS |
|---------------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-----------|-----|
| 1 - Asda                  | 514                   | 636                       | 1253              | 0.410 | 514                 | 0.8             | 5.356     | A   |
| 2 - A5152                 | 883                   | 231                       | 1840              | 0.480 | 883                 | 1.0             | 4.136     | A   |
| 3 - Lidl Site             | 6                     | 1107                      | 760               | 0.007 | 6                   | 0.0             | 5.251     | A   |
| 4 - Powell Road           | 1037                  | 233                       | 2233              | 0.464 | 1037                | 1.0             | 3.309     | A   |
| 5 - Alexandra C.P. School | 0                     | 1271                      | 724               | 0.000 | 0                   | 0.0             | 0.000     | A   |

### 12:00 - 12:15

| Arm                       | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | LOS |
|---------------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-----------|-----|
| 1 - Asda                  | 420                   | 520                       | 1330              | 0.316 | 421                 | 0.5             | 4.360     | A   |
| 2 - A5152                 | 721                   | 189                       | 1871              | 0.385 | 722                 | 0.7             | 3.453     | A   |
| 3 - Lidl Site             | 4                     | 905                       | 879               | 0.005 | 5                   | 0.0             | 4.530     | A   |
| 4 - Powell Road           | 847                   | 191                       | 2268              | 0.373 | 848                 | 0.7             | 2.791     | A   |
| 5 - Alexandra C.P. School | 0                     | 1039                      | 870               | 0.000 | 0                   | 0.0             | 0.000     | A   |

### 12:15 - 12:30

| Arm                       | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | LOS |
|---------------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-----------|-----|
| 1 - Asda                  | 352                   | 436                       | 1386              | 0.254 | 352                 | 0.4             | 3.829     | A   |
| 2 - A5152                 | 604                   | 158                       | 1894              | 0.319 | 604                 | 0.5             | 3.075     | A   |
| 3 - Lidl Site             | 4                     | 758                       | 966               | 0.004 | 4                   | 0.0             | 4.113     | A   |
| 4 - Powell Road           | 709                   | 160                       | 2294              | 0.309 | 710                 | 0.5             | 2.502     | A   |
| 5 - Alexandra C.P. School | 0                     | 870                       | 976               | 0.000 | 0                   | 0.0             | 0.000     | A   |