RPS

FORMER ST CYRES LOWER SCHOOL SITE MURCH ROAD DINAS POWYS

TRANSPORT ASSESSMENT

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TRANSPORT ASSESSMENT

9 August 2017

Our Ref: MAL/AN/adf/JNY8501-02a

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CONTENTS

1 INTRODUCTION

Background

1.1 RPS has been commissioned by Barratt Homes South Wales to provide a Transport Assessment (TA), Transport Implementation Strategy (TIS), and Travel Plan (TP) in accordance with TAN 18, in relation to the proposed residential development comprising 220 dwellings and 3 hectare Community and Recreation Use Zone, on land at the former St Cyres Lower School site in Murch Road, Dinas Powys (CF64 4RF). The school is currently non-operational.

1.2 A description of the scheme proposal is contained within Section 4 of this report. In brief the proposals incorporate the redevelopment of the site and surrounding land to include 220 dwellings. The residential development will consist of a proportion of affordable housing (40%). The proposals also include the 3 hectare community area, for which outline planning permission is being sought.

1.3 The proposed Masterplan is attached at **Appendix A**.

1.4 The site is a located 5.3 miles from Cardiff and 4.6 miles from Barry; the site is accessible from the adopted public highway of Murch Crescent / Murch Road. The previous school on the site is now closed and is considered brownfield land. The site is bound to the north by an existing suburban housing estate and to the south and east by agricultural land and woodland.

1.5 The site is 12.05 hectares in size and lies within the Council's Adopted Local Development Plan Allocation Area of 13.30 hectares, this consists of the 12.05 hectares council development area for mixed use development including residential, community and recreational uses, 0.90 hectare third party land site, and 0.35 hectare (1,115sqm) site for a Medical centre of which planning permission has already been obtained (planning ref: 2014/00178/FUL) and is in operation. The Strategic Brief: A Guide for Bidders (2014) suggests that 9.05 hectares should be utilised for residential development and 3 hectares should be a community hub area.

1.6 From the current site access, Murch Road provides a route for vehicles, pedestrians and cyclists to a range of facilities located off Plas Essyllt to the south and Castle Drive to the north. It also provides a route to the Cardiff Road crossroads that links to Eastbrook station to the north-east and Dinas Powys station to the south-west. Further to the west there are additional local facilities and community areas.

1.7 **Figure 1** shows the location of the proposed development in the context of the neighbouring area.

1.8 This Transport Assessment will look at the proposed residential and community aspects of the Council's Adopted Local Development Plan Allocation Area and will analyse opportunities to enhance walking and cycling provision surrounding the site to tie in with existing walking and cycling facilities as well as assessing the impact the proposed development will have on the local transport network and propose mitigation measures to reduce any potential impact.

1.9 The scope of this Transport Assessment has been discussed with Vale of Glamorgan Council. A copy of the scoping responses received is included within **Appendix B**. This has included the agreement of the extent and times of traffic surveys, method of trip generation and committed developments to be included.

Report Structure

1.10 This Transport Assessment Report considers the transport issues in the area of the site and identifies the likely impacts of the proposed development at the former St Cyres Lower School site in Murch Road, Dinas Powys with all modes of travel considered.

1.11 This Transport Assessment has been produced in line with Planning Policy Wales, TAN18, and the Active Travel Act and is structured as follows:

- **Section 2**: Transport Policy - Review of Local and National Planning Policies in relation to the development proposals;
- **Section 3**: Existing Conditions - Review of the existing conditions at the site and surrounding transport networks. In particular, this focuses on the accessibility of the site by non-car means and the prevalence of public transport services;
- **Section 4**: Development Proposals - Analysis of the development proposals in respect of the development itself as well as the access arrangements being promoted;
- **Section 5**: Travel Demand and Assessment of Transport Impact - Assessment of the number of trips that are likely to be generated by the proposed development with all modes of travel considered and results of the traffic capacity modelling of the local highway network;
- **Section 6**; Travel Implementation Strategy ï This sets the objectives and targets relating to managing travel demand for the development; and
- **Section 7**: Summary and Conclusions. Summary of the findings of the Transport Assessment.

2 POLICY AND GUIDANCE

Introduction

2.1 This section provides a review of national and local transport policy documentation to ensure that the proposals are consistent with current policy. The following documents have been agreed with the Vale of Glamorgan Council as the appropriate framework against which the development will be considered:

- Planning Policy Wales (Edition 9 November 2016);
- TAN18;
- Wales Spatial Plan (2008);
- Wales Transport Strategy ï One Wales ï Connecting the Nation (2008);
- Sustainable Development Scheme One Wales: One Planet (May 2009);
- Active Travel (Wales) Act (2013);
- Vale of Glamorgan Local Transport Plan (2015 ï 2030);
- Vale of Glamorgan Local Development Plan (LDP) (Adopted June 2017); and
- Vale of Glamorgan Supplementary Planning Guidance ï Car Parking Standards (2015).

National Policy

Planning Policy Wales: Chapter 8 Transport

2.2 Planning Policy Wales sets out the land planning policies for the Welsh Assembly Government. It is supplemented by a series of Technical Advice Notes. Each chapter of the document details the main policy objectives and principles which deal with particular subjects. Chapter 8 sets out what the Welsh Government aims to do in terms of Transport within Wales. It is aiming to extend choice in transport and support sustainable development to help tackle climate change.

2.3 Planning Policy Wales states that land use planning can help to achieve the Welsh Governmentôs objectives for transport through reducing the need to travel, especially by private car, by locating development where there is good access by public transport, walking and cycling.

2.4 Paragraph 8.7.2 states:

> **"Transport Assessments (TA) are an important mechanism for setting out the scale of anticipated impacts on the proposed development, or redevelopment, is likely to have. They assist in helping to anticipate the impact of development so that they can be understood and catered for."**

2.5 The TA should provide the basis for negotiation on scheme details as well as including the level of parking, and measures to improve public transport access, walking and cycling.

2.6 Para 8.1.1 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."**

2.7 Examples of how these aims could be met are given:

> **"Ensuring that development is accessible by means other than the private car will help to meet the Welsh Government's objectives for social inclusion. Encouraging cycling and walking will contribute to the aim of improving the levels of health in Wales."**

2.8 Paragraph 8.1.4 of Chapter 8 of Planning Policy Wales states that:

> **"The Welsh Government supports a *transport hierarchy* in relation to new development that establishes priorities in such a way that, wherever possible, they are accessible in the first instance by walking and cycling, then by public transport and then finally by private motor vehicles.**
>
> **Careful consideration needs to be given to the allocation of new sites which are likely to generate significant levels of movement in Local Development Plans to ensure that access provisions which promote walking and cycling, as well as by public transport are included from the outset."**

2.9 Key themes run throughout Chapter 8 of Planning Policy Wales: promoting walking, cycling and public transport; reducing the need to travel by private car; and improving accessibility both to local facilities and services and for disabled and less mobile people.

Planning Policy Wales: Technical Advice Note (TAN) 18

2.10 Planning Policy Wales Technical Advice Note (TAN) 18: Transport encourages the use of sustainable modes of travel over private car trips. TAN 18 states that TANs:

> **"May be material to decisions on individual planning applications and will be taken into account by the Assembly Government and Planning Inspectors where relevant to the determination of called-in planning applications and appeals."**

2.11 TAN 18 promotes the integration between land use planning and transport and:

> **"Securing the provision of transport infrastructure and services, which improve accessibility, build a stronger economy, improve road safety and foster more sustainable communities."**

2.12 In order to achieve the Welsh Assembly Government's Environmental Strategy, TAN 18 sets out the following sustainable transport policy objectives which are relevant to the development site:

- **"Promoting resource and travel efficient settlement patterns;**
- **ensuring new development is located where there is, or will be, good access by public transport, walking and cycling thereby minimising the need for travel and fostering social inclusion;**
- **managing parking provision;**
- **ensuring new development… include appropriate provision for pedestrians… cycling, public transport and traffic management and parking/servicing;**
- **encouraging the location of development near other related uses to encourage multi-purpose trips;**
- **promoting cycling and walking;**
- **supporting the provision of high quality, inclusive public transport;**
- **… encouraging good quality design of streets that provide a safe public realm and a distinct sense of place; and**
- **ensuring that transport infrastructure or service improvements necessary to serve the new development allow existing transport networks to continue to perform their intended functions."**

2.13 Within the heading of 'Accessible Housing Development' states that settlement policies and residential allocations in development plans should, inter alia:

- **"Promote housing development at locations with good access by walking and cycling to primary and secondary schools, public transport stops, and by all modes to employment, further and higher education, services, shopping and leisure, or where such access will be provided as part of the scheme or is a firm proposal in the RTP; and**
- **Ensure that significant new housing schemes contain ancillary uses including local shops and services and, where appropriate, local employment."**

2.14 Paragraph 6.1 under the heading 'walking and cycling' states, inter alia:

> **"It is imperative that local authorities take into consideration the needs of walkers and cyclists in all development planning decisions, in line with the Assembly Government's strategy for Walking and Cycling."**

2.15 Under the heading of 'Location of Development', TAN 18 states that:

> **"the land use planning system can impact on travel patterns, by guiding the location scale, density and mix of new development and controlling changes of land use… over the medium to long**

term could significantly reduce the need to travel and ensure that efficient use is made of public transport options, walking and cycling."

2.16 TAN 18 states that local authorities should:

"seek to maximise relative accessibility… where a development proposal is assessed as having relatively poor accessibility this may be sufficient ground to refuse planning permission" and "ensure that the design and density of new residential development facilitates viable and effective bus services."

Wales Spatial Plan (Update 2008)

2.17 The Wales Spatial Plan (WSP) provides a framework for the future spatial development of Wales. It is important to the Welsh Assembly Government as it helps to deliver our priorities set out in ôOne Walesô

2.18 The Wales Spatial Plan - People, Places, Futures - was originally adopted by the National Assembly for Wales in November 2004. This Update brings the Wales Spatial Plan into line with One Wales, and gives status to the Area work which has developed over the last two years. Paragraph 10.5 of the Wales Spatial Plan states:

"The general principles for new housing growth are: it should be linked to public transport nodes, including walking and cycling networks."

2.19 Inevitably, tensions exist between social, economic and environmental objectives. The challenge facing us all is to achieve sustainable economic growth and social justice whilst protecting and enhancing the environment.

2.20 Paragraph 13.3 under the heading of óAchieving Sustainable Accessibilityôstates:

"In the context of responding to and mitigating the effects of climate change, the Wales Spatial Plan supports the development of spatially targeted responses.

These include reducing the need to travel by co-locating jobs, housing and services, for instance, and changing behaviour in favour of 'greener' modes of travel, such as car sharing, public transport, walking and cycling."

2.21 The challenges this include:

"Work within the national and regional transport planning frameworks to improve the quality and sustainability of connections between key settlements, within and between the Wales Spatial Plan Areas.

Integrate sustainable transport solutions with community and development planning to improve access to services and facilities, recognising the role of the third sector in hard-to-reach places.

While continuing to invest in the transport infrastructure and services, ensure that transport in Wales contributes to mitigating

the effects of climate change by achieving a reduction in total greenhouse gas emissions."

2.22 The Wales Spatial Plan refers to the Wales Transport Strategy ('WTS') titled 'One Wales: Connecting the Nation' and to Regional Transport Plans.

2.23 The WTS affirms the aims of the One Wales programme:

> **"To achieve a nation with access for all, where travelling between communities and accessing services, jobs and facilities in different parts of Wales is both easy and sustainable, and which will support the growth of our economy.**
>
> **A good transport system is central to achieving a vibrant economy and social justice through equality of access and greater mobility. Moreover, transport must play its part to safeguard the environment and improve the quality of life for everyone, whether or not they are travelling."**

2.24 The need for improved transport accessibility is highlighted throughout the document, including the following statement:

> **"That people are not disadvantaged by the design, accessibility and availability of facilities and services – or by poor physical access to different types of transport or by the way information is provided and communicated.**
>
> **It also means paying attention to the issue of actual and perceived safety and security on the transport system because some people are deterred from using the network by such concerns."**

2.25 The Wales Transport Strategy also highlights the importance of acting immediately to reduce greenhouse gas emissions from transport, including to:

> **"Immediately prioritise actions that reduce the number of trips taken or distance travelled – such as ensuring that new developments take transport implications into account.**
>
> **We will also prioritise actions that influence the mode of travel chosen to make greater use of the more sustainable modes of transport; a focus on travel behaviour could enable a significant number of car trips to be replaced by walking, cycling or public transport."**

Wales Transport Strategy – One Wales – Connecting the Nation (2008)

2.26 The One Wales Transport Strategy aims to maximise the positive contribution that transport makes and promote healthy lifestyles, such as walking and cycling for short journeys. It prioritises actions that influence the number of trips, distance travelled and mode of travel chosen, such as ensuring that new developments take transport implications into account.

2.27 It links decisions on the location of housing, education, health and social care services, employment, retailing and planning with the impacts they will have on the way people travel.

2.28 The Welsh Government promotes the widespread adoption of travel plans by new developments. These assist with the efficient management of the highway network and promote alternative modes of transport. The need for a travel plan has been identified as part of the scoping discussions with the Council.

Sustainable Development Scheme 'One Wales: One Planet' (May 2009)

2.29 The Sustainable Development Scheme of the Welsh Assembly Government titled "One Wales: One Planet" (May 2009) has a main outcome of "a low carbon transport network which promotes access rather than mobility, so that we can enjoy facilities with much less need for single occupancy car travel". Under the heading of "What a Sustainable Wales Would Look Like" is:

> **"Walking and cycling are much more commonplace. There is greatly enhanced provision for cyclists and pedestrians within towns and cities, with improved walking and cycling networks, as well as better street design and traffic management measures.**
>
> **There are fast, reliable, affordable public transport services connecting major settlements. There are frequent, reliable mass transit services within cities and more heavily urbanised regions. There is a coherent network of sustainable transport options within rural Wales.**
>
> **Travel Plans are part of all new developments. All employers develop and implement Travel Plans."**

Active Travel (Wales) Act (2013);

2.30 The Active Travel (Wales) Act 2013, received Royal Assent in November 2013 and can into force in September 2014. The Act requires Welsh ministers to publish annual reports on the amount of active travel journeys are made in Wales.

2.31 The Act makes it a legal requirement for local authorities in Wales to map and plan for suitable routes for active travel, and to build and improve their infrastructure for walking and cycling every year. It creates new duties for highways authorities to consider the needs of walkers and cyclists and make better provision for them. It also requires both the Welsh Government and local authorities to promote walking and cycling as a mode of transport.

2.32 By connecting key sites such as workplaces, hospitals, schools and shopping areas with active travel routes, the Act will encourage people to rely less on their cars when making short journeys.

2.33 The Act makes provision;

- for approved maps of existing active travel routes and related facilities in a local authority's area;
- for approved integrated network maps of the new and improved active travel routes and related facilities needed to create integrated networks of active travel routes and related facilities in a local authority's area;
- requiring local authorities to have regard to integrated network maps in preparing transport policies and to secure that there are new and improved active travel routes and related facilities;
- requiring the Welsh Ministers to report on active travel in Wales;

- requiring the Welsh Ministers and local authorities, in the performance of functions under the Highways Act 1980, to take reasonable steps to enhance the provision made for walkers and cyclists and to have regard to the needs of walkers and cyclists in the exercise of certain other functions; and

- requiring the Welsh Ministers and local authorities to exercise their functions under the Act so as to promote active travel journeys and secure new and improved active travel routes and related facilities.

2.34 In considering whether it is appropriate for a route to be regarded as an active travel route, a local authority must take into account;

- whether the route facilitates the making by, or by any description of, walkers and cyclists of active travel journeys; and

- whether the location, nature and condition of the route make it suitable for safe use by, or by any description of, walkers and cyclists for the making of such journeys.

2.35 Firstly, local authorities were required to produce and publish Existing Routes Maps by January 2016. These maps showed routes within the area that are suitable for active travel and which meet standards set by the Welsh Government. As such the Existing Routes Maps, do not show all available walking and cycling routes within an area.

2.36 The Welsh Government approved the Vale of Glamorgan Councilõs (VoGC) Existing Route Maps in August 2015, these include suitable walking routes but Identified that there were no suitable cycle routes within the area.

2.37 The VoGC is now working towards submitting its Integrated Network Maps which set out the Authorityõs aspirations for improving active travel routes across the County over the next 15 years. They will include routes that are currently used but may not meet the standard of Active Travel routes currently, or they could be routes that do not currently exist but that have been identified within other strategic Plans, or have been identified through the consultation process.

2.38 The submission date for the Integrated Network Maps is November 2017. The VoGC is currently at the validation stage and as part of this residents are being invited to comment on the proposed routes that have been identified. The Maps identify potential foot and cycle links through Dinas Powys.

Local Policy

Vale of Glamorgan Local Development Plan (LDP) (Adopted June 2017)

2.39 The adopted LDP contains the Vision and Objectives for the Plan, Strategy, Strategic Policies, Development Management Policies and Policies for Managing Growth. It outlines the requirements for the delivery and implementation of the sites allocated for development and provides a monitoring framework for measuring the effectiveness of the plan.

2.40 All new developments are required to:

- Be highly accessible with a particular emphasis on walking and cycling to reduce the number of short trips taken by car;

- Give careful consideration to the location, design, access arrangements, travel desire lines, and integration with off-site links;
- Promote the use of sustainable travel;
- Provide a safe and accessible environment; and,
- Have no unacceptable impact on highway safety and cause or exacerbate traffic congestion.

2.41 The LDP strategic policy in relation to Transportation (SP7) reads as follows:

> **"Sustainable transport improvements that serve the economic, social and environmental needs of the Vale of Glamorgan and promote the objectives that can be found in the South East Wales Regional Transport Plan 2010 – 2015 will be favoured.**
>
> **Priority will also be given to schemes that improve highway safety and accessibility, public transport, walking and cycling."**

2.42 Within the Councils LDP, strategic policy SP1 seeks to:

> **"Improve the living and working environment, promote enjoyment of the countryside and coast and manage important environmental assets."**

2.43 In transport terms, it seeks to achieve this by:

- Promoting sustainable transport;
- To deliver key infrastructure linked to the impact of development;
- To promote opportunities for sustainable tourism and recreation; and
- Favour development that promotes healthy living.

Vale of Glamorgan Local Transport Plan 2015 – 2030

2.44 The Local Transport Plan (LTP) seeks to identify the sustainable transport measures required to ensure the Vale of Glamorgan Council adheres to current requirements and good practises to allow for a sustainable transport environment for the period 2015 to 2020 as well as looking forward to 2030.

2.45 The LTP seeks ways to secure better conditions for pedestrians, cyclists and public transport users and to encourage a change in travel choices away from the single occupancy car.

2.46 The LTP seeks to tackle traffic congestion by securing improvements to the strategic highway corridors for commuters who may need to travel by car.

2.47 The LTP seeks to do this by:

- Providing new transport capacity to cope with future demand;
- Improving accessibility and connectivity, and reducing journey times between key settlements within South East Wales; and

- Improving access to a wider range of job opportunities by increasing the coverage of public transport, particularly for cross-valley journeys.

Vale of Glamorgan Supplementary Planning Guidance ('SPG') – Car Parking Standards (2015).

2.48 This guidance has been prepared as an SPG for the LDP. The guidance seeks to provide a standardised approach to the provision of parking facilities associated with the development and change of use that is both consistent and transparent. The current adopted parking guidance is set out in VoGCôs LDP. VoGC has specified that the development in question must adhere to these parking standards.

2.49 The SPG sets out the parking requirements for different parking zones within the Vale of Glamorgan to which they will be applied. The site is within the Zones 2 ï 6 classification. The parking standards for new developments within this zone are outlined in **Table 2.2** below.

Table 2.2: Residential Car Parking Standards for Zones 2 – 6 New Build

Type of Development	Residents	Visitors
Houses	1 space per bedroom (max. requirement 3 spaces)	1 space per 5 units

Source: VoGC SPG

2.50 In regards to disabled parking, it is essential that a clear system of sign posting from the most convenient location for disabled parking to the appropriate access catering for disabled persons should be implemented by the developer.

2.51 Cycle parking facilities should be located in areas that are visible and should be safe and secure. In appropriate circumstances, convenient communal facilities may be provided for residential developments. **Table 2.3** outlines recommended standards applicable to the development

Table 2.3: Residential Cycle Parking Standards for Zones 2 – 6 New Build

Type of Development	Residents	Visitors
Residential	1 stand per 5 bedrooms	No requirement

Source: VoGC SPG

2.52 Residential Car and Cycle Parking will be provided in line with the above standards.

2.53 For the Community and Recreation Use Zone, the standards for community centre set out that 1 commercial parking space is required as well as a space per 10m^2 of land use. The level of parking required will be determined at the Full application stage.

Summary

2.54 National policy is provided by Planning Policy Wales and TAN18 and which aims to promote sustainable travel to developments and states that developments should be located to maximise sustainable transport opportunities.

2.55 Local policy is provided by the LTP and LDP which identifies the sustainable transport measures required to ensure the Vale of Glamorgan Council adheres to current requirements and good practises to allow for a sustainable transport environment. It seeks ways to secure better conditions for pedestrians, cyclists and public transport users and to encourage a change in travel choices away from the single occupancy car.

2.56 The policy sets out that all new developments must be highly accessible with a particular emphasis on walking and cycling to reduce the number of short trips taken by car, promote the use of sustainable travel and have no unacceptable impact on highway safety and cause or exacerbate traffic congestion.

2.57 This chapter has outlined the policy context to which the proposed development relates and the frameworks with which the development proposal needs to comply.

3 EXISTING SITUATION AND ACCESSIBILITY

Introduction

3.1 This chapter outlines the existing sustainable transport network available for residents and visitors to the proposed St Cyres development site. This information also provides a context for providing future connections to the site.

3.2 This chapter considers the site location and the existing local highway, pedestrian, cycle and public transport networks, with particular regard to the accessibility of the site in relation to public transport stops and local service provision.

Site Location and Access

3.3 The St Cyres Lower School development site is located approximately 1.5km to the south-east of the A4055 Cardiff Road, which routes through the centre of Dinas Powys. The site is located approximately 5.3 miles from Cardiff. The main route through the area is Cardiff Road (A4055) which runs east to Barry and west to Penarth. It is identified by the Vale of Glamorgan (LDP) as a strategic transport corridor and a bus priority corridor. The local highway network in the vicinity of the site is described further in this section.

3.4 The site is bounded to the west by residential developments and local facilities, to the north, south and east of the site is mostly uninhabited and undeveloped land, aside from a few pockets of residential dwellings. The St Cyres Lower School which sits within the site non-operational, as it the remaining land of which is classified as Brownfield.

3.5 The site is accessible from the adopted public highway of Murch Crescent / Murch Road to the north. The existing access to the school site is effectively a cul-de-sac for vehicles, with Murch Road only serving farm buildings to the east of the site. The access to the east that links to Sully Road is unmade and, whilst suitable for pedestrians and cyclists, would not be suitable or promoted for access by vehicles. There is a continuous footway route from the site to the local facilities. Most local roads provide footways on both sides of the carriageway.

3.6 The site location is shown in both a local and strategic context on **Figure 1**.

Pedestrian and Cyclist Network

3.7 Manual for Streets identifies ówalkable neighbourhoodsô as ñtypically characterised by having a range of facilities within 10 minutesô (up to about 800 m) walking distance of residential areas which residents may access comfortably on footò. However, this is not an upper limit. Paragraph 2.3 of the Design Manual for Roads and Bridges TD91/05 ñProvision for Non-Motorised Usersò states:

> **ñWalking is used to access a wide variety of destinations including educational facilities, shops, and places of work, normally within a range of up to 2 miles. Walking and rambling can also be undertaken as a leisure activity, often over longer distances.ò**

3.8 For cycling journeys, Local Transport Note 2/08 ó Cycle Infrastructure Designô states:

"Many utility cycle journeys are under 3 miles although, for commuter journeys, a trip distance of over 5 miles is not uncommon."

3.9 The site is located at the end of Murch Road which is a residential area with good footway provision along both sides of the road. From Murch Road, walking routes are available to all residential areas south of Cardiff Road via Castle Drive to the east and Plas Essyllt to the west. In addition, Ash Path leads to Sully Road (just over 600m away) and provides access to the residential area to the west of Redlands Road, Penarth. This path is due to be upgraded as part of the Penarth Learning Community development.

3.10 There are no formal cycle routes through Dinas Powys although advanced cycle stop lines are provided at the junction of Cardiff Road/Murch Road.

Public Transport

Bus Travel

3.11 The nearest bus stop is located on Plas Essyllt approximately 790 metres from the site via Murch Road opposite the Post Office. This stop is serviced by the bus routes summarised below in **Table 3.1**.

Table 3.1: Bus Services

Service Number	Stop	Route (Operator)	First Service (weekday)	Last Service (weekday)	Frequency (per hour)				
					Weekdays			Weekends	
					AM Peak	Inter Peak	PM Peak	Sat	Sun / BH
89A/B	Dinas Powys (Village Square)	Dinas Powys ï Cardiff (Watts Coaches)	07:50	16:00	No Service	Every 2 hours	No Service	5 per day	No Service
93	Post Office	Barry - Dinas Powys - Sully ï Penarth ï Cardiff (Cardiff Bus)	07:30	17:58	1	1	1	1	No Service
304	Eastbrook Railway Station	Cardiff ï Dinas Powys - Barry	06:21	23:35	2	1	1	1	No Service

Source: Traveline (July 2017)

Rail Travel

3.12 The two closest stations are Eastbrook Rail Station, located 1.5km from the site, and Dinas Powys Rail Station, located 1.6km from the site. Both stations are serviced by routes to Aberdare, Barry Island, Merthyr Tydfil and Bridgend. A summary of these services from the Eastbrook Station are detailed in **Table 3.2** below.

Table 3.2: Rail Services from Eastbrook Railway Station

Destination	First Service (weekday)	Last Service (weekday)	AM Peak	Inter Peak	PM Peak	Sat	Sun / BH
Aberdare	05:32	23:28	2	1-2	2	1-2	1 every 2 hours
Barry Island	05:30	23:41	3	3	3	3	1-2
Merthyr Tydfil	05:32	23:28	2	1-2	2	1-2	1 every 2 hours
Bridgend	05:32	23:28	4	3-4	4	4-5	2

Source: National Rail (July 2017)

3.13 Overall, the multiple bus stops, the two rail stations and the close proximity of a wide range and choice of local facilities highlight the sustainable location of the proposed site in accordance with Planning Policy Wales and TAN18.

Local Facilities and Accessibility

3.14 There are a wide range of local facilities within close proximity of the site, within the Manual for Streets ówalkable neighbourhoodôdistance of 800m and accessible via footways from the site. The local facilities and their position on the local road network are provided in **Table 3.3** and **Figure 2**.

Table 3.3: Local Facilities Location

Road	Facilities	Distance from Site
Plas Essyllt (St Ivor Place)	Ironing 4 U Community Care Butchers Doggy Parlour Hair Design Chemist	Approximately 0.4 miles (650m) / 8 minutesôwalk
Castle Drive	Tescoôs Supermarket McColloôs Hung House Joeôs Chippy Fruit Store A Class Apart	Approximately 0.5 miles (800m) / 10 minute walk
Cardiff Road	Eastbrook Railway Station	Approximately 0.7 miles (1.1km) / 14 minutesôwalk
	Dinas Powys Health Centre	Approximately 0.8 miles (1.3km) / 15 minutesôwalk
	Texaco Petrol Station Spar Bugdenôs Peter Mulcahy (Estate Agents) Miahôs (Indian Take Away) Pharmacy	Approximately 0.9 miles (1.4km) / 16 minutesôwalk
	Dinas Vets Jon Coombes (Estate Agents) Happy Garden (Take Away)	Approximately 0.9 miles (1.4km) / 16 minutesôwalk
	Dinas Powys Railway Station	Approximately 1.1 miles (1.7km) / 21 minutesôwalk
Station Road	Dinas Powys Common	Approximately 1.3 miles (2.1km) / 24 minutesôwalk
The Square	Potter & Co. (Accountants) La Boheme (Health and Beauty) Green Willow Funerals The Star Inn Dinas Fish Bar Balti Tandoori (Take Away) Mirrors (Hair Stylists) The Green Room (Flower Shop) The Huntsman Restaurant The Village Stores Walk-in Barbers Head-To-Head Dinas Powys Post Office Three Horseshoes	Approximately 1.2 miles (1.9km) / 23 minutesôwalk
Elm Grove Road	Natwest	Approximately 1.1 miles (1.7km) / 21

Road	Facilities	Distance from Site
	The Wild Blackberry Cross Keys Capital Racing West Lake Chop Suey House	minutesôwalk
Mill Road	Happy Embroidery	Approximately 1.1 miles (1.7km) / 21 minutesôwalk
	St Peterôs Church	Approximately 1 mile (1.6km) / 20 minutesôwalk

Source: Consultants site visit and analysis.

3.15 In addition to the various areas of local facilities in close proximity to the site, the centre of the village of Dinas Powys is located at The Square, approximately 1.6km to the north-west of the development site. It can be accessed using two alternative routes:

- via Millbrook Road to the north-west at the Cardiff Road / Murch Road crossroads and then via Mill Road; or
- via Cardiff Road south-west and Elm Grove Road north-west.

3.16 This area is the main community and leisure hub within Dinas Powys and includes a number facilities detailed in **Table 3.3** including Dinas Powys Post Office.

Local Highway Network

Murch Road

3.17 Murch Road is a local road that connects the surrounding residential area to Cardiff Road. It is a single carriageway road that ends to the south in a turning circle at the former St Cyres School site. From Cardiff Road it heads uphill to become Murch Crescent then re-joins Murch Road. It is subject to a 30mph speed restriction, and has footways of approximately 2 metres in width on both sides of the carriageway, streetlighting is available along its length. For much of its length (except near the junctions with Cardiff Road and Castle Drive and at the turning circle at the end of the road) parking is unrestricted.

3.18 Murch Road connects to Cardiff Road at a traffic signals junction circa 1.5km to the north-west of the site.

Cardiff Road / Murch Road Traffic Signals Junction

3.19 The Cardiff Road/Murch Road traffic signals junction has four arms approaching the junction. The Cardiff Road approaches to the east and west have two lanes (one lane for ahead and left and one for right turners). The Murch Road approach to the south has one lane for all movements. Millbrook Road to the north has two approach lanes (one lane for ahead and right and one for left turners). There are pedestrian crossing facilities on each arm and advanced cycle stop lines on all approaches except Murch Road. There are footways on all approaches to the junction and all arms approaching the junction are lit.

3.20 Immediately to the west of the traffic signals junction, Cardiff Road is subject to single yellow line parking restrictions enforced between 08:00 and 18:30 Monday to Saturday on the northern edge of carriageway and double yellow lines on the southern edge. On the southern edge approximately 50 metres from the junction the parking restrictions end and there is an on-street uncontrolled parking layby.

3.21 To the east, parking restrictions in the form of double yellow lines are in place on the approach to the junction. There are double yellow line parking restrictions in place on the Murch Road and Millbrook Road approaches to the junction.

Cardiff Road (A4055)

3.22 Cardiff Road is a single carriageway road that links Barry in the west with Penarth in the east, via Dinas Powys. It then continues along the Cogan Spur and joins with the A4232 dual carriageway which heads to the M4. Locally it runs through the centre of Dinas Powys and provides access to the residential areas on both sides of Cardiff Road. It is subject to a 30mph speed limit, has footways on both sides of the carriageway and is lit.

Traffic Flows

3.23 Traffic Surveys have been undertaken for the local roads to the site to determine the existing traffic flows on the network. A mixture of Automatic Traffic Counters (ATC) and manual surveys have been used. The below junctions and roads were surveyed during school term-times in September 2015:

- Murch Road (one week ATC);
- Junction of Murch Road with Castle Drive (manual classified count and queue survey);
- Junction of Murch Road with Sir Ivor Place (Plas Essyllt) (manual classified count and queue survey);
- Signalised junction of Murch Road / Millbrook Road / A4055 Cardiff Road (manual classified count and queue survey);
- ATC on Cardiff Road (one week); and
- Priority junction of Station Road/Cardiff road (manual classified count and queue survey).

3.24 The 2015 traffic flows are considered a suitable base year as they were undertaken within the last three years, and no changes to the local road network have taken place during this time. Any changes in traffic due to local development as well as committed developments will be added taken into account and added to the baseline traffic flows; further details are included in **Section 5**.

3.25 The results of the traffic and speed surveys have been calculated through junction assessments; the relevant Traffic Flow Models are included in **Appendix C**. A summary of the baseline junction assessments is included in **Section 5.**

Highway Network Improvements and Committed Developments

3.26 As previously stated, the Medical Centre development (0.35 hectares), that is within the Councilôs Adopted Local Development Plan Allocation Area (13.30 hectares), has already obtained planning permission (planning ref: 2014/00178/FUL) and is now in operation. The site is located off Murch Road, to the north of the existing school access. The trip generation included within the Transport Assessment for the development (planning ref: 2014/00178/FUL) has been added as a committed development to the baseline traffic flows; further details are provided in **Section 5**.

3.27 Planning permission was granted on Land off Caerleon Road in January 2016 (planning ref: 2014/00282/OUT) for 70 dwellings, offering a mixture of affordable and private housing. The Transport Assessment included the cumulative effects of the Medical Centre and St Cyres development. The Traffic generation for the development has been added as a committed development to the baseline traffic flows; further details are provided in **Section 5**.

3.28 The Councilôs Deposit Local Development Plan Allocation Area includes the 3 hectare community hub. The specific use of this area is currently unknown; an outline application is being submitted for the Community and Recreation Use Zone, which will be located within the proposed development site. It is predicted that no or very few vehicular trips relating to the Community and Recreation Use Zone will be generated during the network peak hours being assessed and has therefore not been accounted for within the junction assessments; this represents the most realistic scenario.

3.29 The development trips for the committed developments are included within **Section 5**.

Accident Data

3.30 Personal Injury Accident (PIA) Data was received from 31 December 2009 ï 30 December 2014 for the highway network within the vicinity of the site has been obtained from Vale of Glamorgan Council and has been analysed below. The full results are included in **Appendix D** and **Figure 3** displays the location and classification of these accidents.

3.31 In total, there were 35 Personal Injury Accidents that occurred within the five year period for the local road network. Of these, four were considered serious, and the remainder were considered slight. There were no Fatal injury accidents recorded within the vicinity of the site. Of the 35 Personal Injury Accidents six of these involved Motorcyclists and three involved Pedestrians.

3.32 One of the serious injury accidents occurred on the Cardiff Road junction with Cross Common Road when a car lost control and collided with a tree. The driver of the car was intoxicated. Another occurred on the A4055 Cardiff Road junction with St Davidôs Avenue when a vehicle turning right collided with a vehicle travelling on the opposite side of the road. Another occurred on the Cardiff Road junction with St Davidôs Avenue and involved a vehicle colliding with a pedestrian when they stepped into the carriageway from the nearside of the vehicle.

3.33 The final serious injury accident occurred on the Cardiff Road and involved a vehicle colliding with a motorcyclist who had indicated to make a turn. No personal injury accidents occurred along the Murch Road within the vicinity of the site within the latest five year period.

3.34 The latest two years of Personal Injury Accident Data was reviewed using crashmap (up to 2016). During this period an additional four slight and one serious PIA took place within the surveyed area; The results showed that no PIAôs had taken place along the length of Murch Road.

3.35 Overall, the results show that there is not an issue with highway safety within the vicinity of the site.

4 DEVELOPMENT PROPOSALS

Context

4.1 The proposed development site is 12.05 hectares in size. The site lies within the Councilôs Adopted Local Development Plan Allocation Area of 13.30 hectares.

4.2 The LDP Allocation Area consists of 12.05 hectares for mixed use development including residential, community and recreational uses, 0.90 hectare third party land site, and 0.35 hectare site for the Medical centre which is now in operation. The Strategic Brief: ôA Guide for Bidders (2014)ô suggests that 9.05 hectares should be utilised for residential development and 3 hectares should be a Community and Recreation Use Zone.

4.3 The development proposals include details for the Residential element, which is being submitted in Full, and details for the Community and Recreation Use Zone, which is being submitted in Outline.

Development Proposals

4.4 It is proposed to submit a Planning Application for development of 220 dwellings, in line with the Vale of Glamorgan Councilôs Adopted Local Development Plan (2017); this proposes that 40% of the dwellings within the proposed site should be affordable houses and it is anticipated that the site would comply with this policy. The site development would be a mixture of circa 88 affordable houses and 132 private houses.

4.5 Details for the nature and form of the Community and Recreation Use Zone are unknown at this stage. The site area proposed for the Community and Recreation Use Zone is approximately 3 hectares. It is predicted that no or very few vehicular trips relating to the Community and Recreation Use Zone will be generated during the network peak hours and therefore, has not been accounted for within the junction assessments. It is considered that this will represent the most likely scenario.

4.6 A provision of 447 car parking spaces is being provided within the development proposals; garage spaces are also being provided for most units. This is in line with the VoGC maximum parking standards. A total of 419 cycle parking spaces are provided within the development proposals, this is in line with the VoGC cycle parking standards.

4.7 The proposed Masterplan has been submitted along with the application for Full Planning Permission for the Residential development and Outline Planning Permission for the Community and Recreation Use Zone. This is included as **Appendix A**.

Proposed Site Access

Proposed Vehicular Access

4.8 The access to the development will be via the existing site access onto Murch Road. Currently, a gyratory system is in place, whereby movement into the site and out of the site follows a one-way system around grassed island on Murch Road.

4.9 It is proposed that the access arrangements for the site, will involve introducing a two-way movement into the site access, by way of reducing the size of the grassed island. The design is in accordance with design standards and has been verbally discussed with the highway authority.

4.10 Full details of the internal road layout and geometries, including facilities for pedestrians and cyclists, are set out within the Design and Access Statement.

4.11 The proposed access design is included at **Appendix E**.

Pedestrians and Cyclists

4.12 The proposed access to the site includes footway provision along both sides of the carriageway, and it is anticipated that both pedestrians and cyclists will use the main vehicular access to the site. This will connect with the existing footway along Murch Road. This links with the surrounding residential areas and provides a route to Cardiff Road.

4.13 As more of the Local Development Plan Allocation Area land develops, the internal vehicle and pedestrian network will also develop, providing further links to the rest of Dinas Powys and the surrounding areas.

5 TRIP GENERATION AND JUNCTION ASSESSMENT

Future Year Assessment

5.1 Scoping of this Transport Assessment has been undertaken with Vale of Glamorgan Council contained within **Appendix B** and proposed that a 2020 future assessment would be appropriate. It is considered that a 2020 future year is a realistic timescale in which the development will be developed.

5.2 Accordingly, background traffic grown has been applied based upon the industry standard TEMPRO database (version 6.2). Localised NTM factors for Dinas Powys (00PD2) have been obtained based upon the NTM AF09 dataset, the growth rates for 2015 ï 2020 are presented below:

- Morning Peak 1.0752;
- Evening Peak 1.0736; and
- Average Weekday 1.0738.

5.3 The future year baseline traffic flow traffic model can be found in **Appendix F**.

Committed Development

5.4 As aforementioned within **Section 1** it had been proposed by Vale of Glamorgan Council to consider the approved 0.35 hectare Medical Centre on the north western corner of the site; this has subsequently been built out and replaces the Medical Centre on Cardiff Road. Development flows for the Medical Centre had been taken from the approved planning application (planning ref: 2014/00178/FUL) and adjusted based on the proportion of existing and proposed trips and the relocation of trips from the Cardiff Road Medical Centre; these flows are included in **Table 5.1** below.

5.5 Planning permission was granted on Land off Caerleon Road in January 2016 (planning ref: 2014/00178/FUL) for 70 dwellings, of which 25 were affordable units and the remaining were open market housing. The Transport Assessment included the cumulative effects of the Medical Centre and St Cyres development. The Traffic generation for the development has been added as a committed development to the baseline traffic flows and is included in **Table 5.1** below.

5.6 The 3 hectare Community and Recreation Use Zone which forms part of these proposals will be put forward as an outline application. It is assumed that the vehicle trips relating to the Community and Recreation Use Zone will be mostly outside of the network peak hours, and therefore have not been included within the Peak Hour assessments.

5.7 **Table 5.1** below details the Trip Generation for the committed development for the local area surrounding the site and the committed development flows are attached at **Appendix G**.

Table 5.1 Committed Development Traffic Flows

	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	Arriving	Departing	Two-way	Arriving	Departing	Two-way
Medical Centre	35	10	45	22	27	49
Caerleon Road (70 units)	13	29	45	26	17	42
Total	48	39	90	48	44	91

Source: Planning Ref: 2014/00178/FUL and 2014/00178/FUL

5.8 **Table 5.1** above shows the trips likely to be generated by committed developments local to the site. The committed development trips have distributed using the same methodology as the proposed development.

5.9 The Traffic Flow Models for the baseline traffic flows with the addition of the committed development flows are included in **Appendix H**.

Residential Trip Generation

Vehicle Trips

5.10 To determine the trip generation for the proposed site, trip generation parameters have been agreed with Vale of Glamorgan Council through pre-application scoping, as shown in **Appendix B**. The Council requested that either of the following methods for trip generation be used:

- 85th percentile trip rates from the industry standard TRICS database; or
- Local trip rate surveys.

5.11 Local trip rate surveys have been used based upon the surveyed trips in an out of the residential area comprising Castle Drive and its associated cul-de-sac. This area contains a mix of housing types and tenures, as would be provided in the proposed development.

5.12 The Castle Drive area also contains a small parade of local shops (estimated at 1,290 sq. m GFA). The TRICS database has been used to provide an estimate of traffic movements for these, which could have been removed from the residential trip generation. However, the resulting trip generation for the local shops was derived as too high for the area considering its high accessibility, and would have led to too many residential trips being removed. It was therefore deemed appropriate to portray the local trip rate in its worst case which was to not include the TRICS results for the local shops and to only result the residential trips.

5.13 The resulting local residential trip rates are provided in **Table 5.2** below. The number of trips has been predicted for a 220 dwelling development. The trip generation is provided in **Table 5.3**.

Table 5.2: Local Residential Trip Rates

Time Period	Vehicular Trip Rate per Dwelling		
	Arrival Rate	Departure Rate	Two-way
Without Removal of Retail Trips from Local Survey			
Morning Network Peak Hour 08:00-09:00	0.196	0.315	0.511

Time Period	Vehicular Trip Rate per Dwelling		
	Arrival Rate	Departure Rate	Two-way
Without Removal of Retail Trips from Local Survey			
Evening Network Peak Hour 17:00-18:00	0.352	0.322	0.675

Source: Traffic surveys undertaken in September 2015 with retail trips removed based on TRICS version 7.2.3.

Table 5.3: Trip Generation for 220 Dwelling Development

Time Period	Vehicles		
	Arrivals	Departures	Two-way
Without Removal of Retail Trips from Local Survey			
Morning Network Peak Hour 08:00-09:00	43	69	112
Evening Network Peak Hour 17:00-18:00	78	71	148

Source: Consultant's calculations based upon the trip rates in Table 5.2.

5.14 **Table 5.3** displays the results of the Local Survey trip generation and shows that during the AM Peak 43 trips are predicted to be arrive at the site and 69 departing from the site (112 two-way trips). During the PM Peak it is predicted that there will be 78 trips arriving at the site and 71 trips depart from the site (148 two-way trips).

Trips for Other Modes of Travel

5.15 To calculate the movement by other modes of travel, the Modal split was utilised from the Dinas Powys Ward Journey to Work Census Data (2011) for all modes. The proportions of movements arriving and departing the site over a 12 hour movements for vehicles were used to calculate the corresponding movements for other modes.

5.16 The details of which are included in **Table 5.4** below.

Table 5.4: Summary of Trip Generation and Mode Share

Mode of Travel	Modal Split	AM Peak (08:00 - 9:00)			PM Peak (18:00 -19:00)		
		Arrivals	Departures	Two-way	Arrivals	Departures	Two-way
Car Driver	78%	43	69	112	78	71	148
Train	10%	6	9	14	10	9	19
Bus	2%	1	2	3	2	2	4
Motorcycle	1%	1	1	1	1	1	2
Bicycle	2%	1	2	3	2	2	4
On Foot	6%	3	5	9	6	5	11
Other	1%	1	1	1	1	1	2
Total Trips	100%	55	88	144	100	91	190

5.17 **Table 5.4** indicates that the highest proportion of trips is made by vehicles (78%) and that there is approximately 112 trips in the AM Peak and 148 trips in the PM Peak for all modes of travel.

5.18 The second most used mode of travel is by Train of which 14 people travel in the AM and 19 people travel in the PM (10%). Approximately 9 trips are made on foot in the AM and 11 in the PM (6%). The remaining trips are made by cycle, motorcycle, bus and other.

Trip Distribution and Assignment of Vehicle Trips

5.19 The proposed trips generated by the development have been distributed and assigned onto the local transport network through the use of National Statistics, Census 2011 data for employment trips.

5.20 National statistics NTSSO409, shown in **Table 5.5**, identifies the journey purposes of all journeys made over the course of a typical year. This can be used to give an indication of the likely journey purpose of trips generated by a new development.

Table 5.5: Proportion of Trips per Year by Journey Purpose

Journey Purpose	Proportion of Trips	Proportion of Travel by Car
Leisure	26%	63%
Shopping	20%	58%
Commuting	15%	58%
Business	3%	15%
Education / escort education	12%	18%
Personal business	10%	28%
Other escort	9%	34%
Other including just walk	5%	0%

Source: Table NTS0409 of Transport Statistics Great Britain (2012)

5.21 The above table shows that 18% of all journeys are for Commuting or Business purpose whilst 82% of journeys are for ôOtherô Uses.

5.22 Vehicular travel from the site will be from the main access via Murch Road, it is predicted that all traffic from the development will be via this road, and then further afield distributed based on Census Journey to Work data for Dinas Powys Ward displayed in **Tables 5.6**.

5.23 The distribution of traffic can be estimated based on the most common destinations of work for residents of Dinas Powys (Dinas Powys ward (00PD2)) provided in **Table 5.6** below.

Table 5.6: Most Common Destinations for Journeys to Work – Dinas Powys

Destination	Proportion of Journey to Work Trips
Bridgend	2.0%
The Vale of Glamorgan	35.7%
Cardiff	49.8%
Rhondda Cynon Taf	2.9%
Caerphilly	1.0%

Destination	Proportion of Journey to Work Trips
Newport	2.1%
Other	6.5%

Source: Dinas Powys Ward ï Journey to Work Data - Census 2011 and Nomis Statistics (May 2015)

5.24 Based on the results in **Table 5.6** it can be derived that 60% of traffic will be distributed via Cardiff Road North and 40% of traffic will be distributed via Cardiff Road South.

Predicted Junction Operation

5.25 The junctions to be modelled as part of this TA have been agreed through pre-application scoping with Vale of Glamorgan Council. The junctions have been tested using the industry standard tool óJunctions 9ôdeveloped by TRL.

5.26 Modelling has been undertaken for Base Year 2015, Forecast Year 2020, Forecast Year 2020 with Committed (without the proposed development) and Forecast Year 2020 with Committed and with the proposed development. The traffic modelling results for the local junctions are set out in **Tables 5.7 - 5.10** below.

5.27 Transport Research Laboratory (TRL) Junctions 9 software has been used to assess the capacity of the existing and proposed priority junctions. The software is designed to assess junction capacity in terms of the Ratio of vehicle Flow to Capacity (RFC), queue lengths and delays. Typically, a priority junction is considered to be approaching capacity when the RFC exceeds 0.85 over a single hour. Any result showing 1.0 or above indicates that the junction is operating in theory at or above capacity. RFC can also be termed degree of saturation and these values are usually expressed as percentages.

5.28 JCT Consultancy Ltd computer program LinSig (V.3) has been used to assess the capacity of the signalised New Road / Marsh Way junction. LinSig is a computer software package for the assessment and design of traffic signal junctions. LinSig refers to the analysis of the Degree of Saturation (DoS) and extent of vehicular queuing. The DoS represents the percentage of vehicular demand to capacity on each approach to the junction, with a value of 100% meaning that demand and capacity are equal.

5.29 The traffic flow models for the future year with the committed development are included in **Appendix H** and the traffic flow models for the future year with the committed development plus development are included in **Appendix I**. The related Junction 9 and LINSIG assessments can be found in **Appendix J**.

Table 5.7: Summary Results of the Murch Road / Sir Ivor Place - Priority T-Junction

Arm	Base Year 2015				Forecast Year 2020				Forecast Year 2020 with Committed Development				Forecast Year 2020 with Committed Development + Development			
	AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
	RFC	Max Q	RFC	Max Q	RFC	Max Q	RFC	Max Q	RFC	Max Q	RFC	Max Q	RFC	Max Q	RFC	Max Q
Sir Ivor Place to Murch Road (west)	0.27	0	0.2	0	0.29	0	0.22	0	0.29	0	0.22	0	0.31	1	0.23	0
Sir Ivor Place to Murch Road (east)	0.03	0	0.03	0	0.03	0	0.03	0	0.03	0	0.03	0	0.04	0	0.03	0

Murch Road West to Murch Road (east) and Sir Ivor Place	0.23	0	0.25	0	0.25	0	0.27	0	0.26	0	0.27	0	0.28	1	0.30	1

Source: SkyHigh Technology Traffic Surveys (September 2015) and Junction 9 Assessments

5.30 As can be seen from **Table 5.7** the Murch Road / Sir Ivor Place priority junction operates within capacity within minimal to no queueing in all scenarios.

Table 5.8: Summary Results of the Murch Road / Cardiff Drive - Cross Roads

Arm	Base Year 2015				Forecast Year 2020				Forecast Year 2020 with Committed Development				Forecast Year 2020 with Committed Development + Development			
	AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
	RFC	Max Q	RFC	Max Q	RFC	Max Q	RFC	Max Q	RFC	Max Q	RFC	Max Q	RFC	Max Q	RFC	Max Q
Castle Drive to Murch Road (south) and Vale Court	0.13	0	0.15	0	0.14	0	0.16	0	0.15	0	0.17	0	0.18	0	0.19	0
Castle Drive to Murch Road (north) and Vale Court	0.33	1	0.33	1	0.37	1	0.36	1	0.39	1	0.38	1	0.42	1	0.45	1
Murch Road (north) to Castle Drive, Murch Road (south) and Vale Court	0.01	0	0.00	0	0.01	0	0.00	0	0.01	0	0.00	0	0.01	0	0.00	0
Vale Court to Murch Road (north) and Castle Drive	0.01	0	0.02	0	0.01	0	0.02	0	0.01	0	0.02	0	0.01	0	0.02	0
Vale Court to Castle Drive and Murch Road (south)	0.00	0	0.01	0	0.00	0	0.01	0	0.01	0	0.01	0	0.01	0	0.01	0
Murch Road (south) to Murch Road (north), Castle Drive and Vale Court	0.13	0	0.13	0	0.14	0	0.15	0	0.14	0	0.16	0	0.22	1	0.17	0

Source: SkyHigh Technology Traffic Surveys (September 2015) and Junction 9 Assessments

5.31 As can be seen from **Table 5.8** the Murch Road / Cardiff Drive crossroads junction operates within capacity within minimal to no queueing in all scenarios.

Table 5.9: Summary Results of the A4055 Cardiff Road/ Station Road – Priority T-Junction

Arm	Base Year 2015				Forecast Year 2020				Forecast Year 2020 with Committed				Forecast Year 2020 with Committed Development + Development			
	AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
	RFC	Max Q	RFC	Max Q	RFC	Max Q	RFC	Max Q	RFC	Max Q	RFC	Max Q	RFC	Max Q	RFC	Max Q
Station Road to Cardiff Road (south)	0.01	0	0.04	0	0.01	0	0.91	1	0.01	0	0.99	1	0.01	0	1.06	1
Station Road to Cardiff Road (north)	0.30	0	0.81	4	0.35	1	0.95	8	0.36	1	0.98	10	0.36	1	1.05	15
Cardiff Road (north) to Cardiff Road (south) and Station Road	0.02	0	0.02	0	0.02	0	0.02	0	0.02	0	0.02	0	0.02	0	0.02	0

Source: SkyHigh Technology Traffic Surveys (September 2015) and Junction 9 Assessments

5.32 As can be seen from **Table 5.9** the A4055 Cardiff Road/ Station Road junction is nearing the RFC of 0.85 on the Station Road to Cardiff Road (north) movement during the baseline PM Peak. This increases to 0.95 with a queue of 8 which is considered over capacity during the 2020 future year scenario, the RFC for Station Road to Cardiff Road (south) also increases from 0.04 to 0.91 during the PM Peak. With committed development, the RFC increases to 0.99 on Station Road to Cardiff Road (south) and 0.98 on Station Road to Cardiff Road (north) during the PM, the queue also increases from 8 to 10 on this arm. With the proposed development added, the RFC increases to 1.06 and 1.05 on Station Road to Cardiff Road (south) / (north) respectively. The queue increases from 10 to 15 on this latter arm. The queue on Station Road to Cardiff Road (south) does not exceed 1.

5.33 Although the Station Road to Cardiff Road (south) and Station Road to Cardiff Road (north) are above capacity with the development scenario, this is only a marginal increase from the committed scenario in terms of RFC and queue lengths.

Table 5.10: Summary Results of the Murch Road / Millbrook Road / A4055 Cardiff Road – Signalised Cross Roads – Assuming No Pedestrian Stage

Entry	Base Year 2015					
	AM Peak (08:00 – 09:00)			PM Peak (17:00 – 18:00)		
	MMQ	Delay (sec/pcu)	DoS	MMQ	Delay (sec/pcu)	DoS
Cardiff Road NE	15	31	65.9%	21	34	77.0%
Murch Road	9	52	64.1%	8	73	75.0%
Cardiff Road SW; left/ahead	13	28	59.3%	12	24	51.9%
Cardiff Road SW; right	2	80	38.5%	1	75	26.0%
Millbrook Road	2	58	35.9%	7	70	77.3%
Cycle Time	120 secs			120 secs		
Overall Junction Practical Reserve Capacity	36.6%			16.4%		
Overall Junction Delay (pcuHr)	15.77			19.64		

Entry	Forecast Year 2020					
	AM Peak (08:00 – 09:00)			PM Peak (17:00 – 18:00)		
	MMQ	Delay (sec/pcu)	DoS	MMQ	Delay (sec/pcu)	DoS
Cardiff Road NE	17	33	70.7%	24	37	82.7%
Murch Road	10	55	68.8%	9	80	80.7%
Cardiff Road SW; left/ahead	15	29	63.7%	13	25	55.7%
Cardiff Road SW; right	2	81	41.2%	1	76	27.7%
Millbrook Road	2	59	38.1%	8	78	82.9%
Cycle Time	120 secs			120 secs		
Overall Junction Practical Reserve Capacity	27.2%			8.5%		
Overall Junction Delay (pcuHr)	17.63			22.97		

Entry	Forecast Year 2020 with Committed					
	AM Peak (08:00 – 09:00)			PM Peak (17:00 – 18:00)		
	MMQ	Delay (sec/pcu)	DoS	MMQ	Delay (sec/pcu)	DoS
Cardiff Road NE	19	36	75.8%	27	43	87.7%
Murch Road	12	58	75.6%	12	89	87.8%
Cardiff Road SW; left/ahead	15	30	64.9%	13	26	56.6%
Cardiff Road SW; right	3	92	58.2%	2	83	44.7%
Millbrook Road	2	59	38.1%	9	89	87.3%
Cycle Time	120 secs			120 secs		
Overall Junction Practical Reserve Capacity	18.8%			2.5%		
Overall Junction Delay (pcuHr)	20.10			27.69		

Entry	Forecast Year 2020 with Committed Development + Development					
	AM Peak (08:00 – 09:00)			PM Peak (17:00 – 18:00)		
	MMQ	Delay (sec/pcu)	DoS	MMQ	Delay (sec/pcu)	DoS
Cardiff Road NE	25	55	90.1%	36	69	96.6%
Murch Road	18	65	87.9%	16	101	93.8%
Cardiff Road SW; left/ahead	17	39	74.2%	13	28	58.6%
Cardiff Road SW; right	4	111	73.4%	4	109	72.5%
Millbrook Road	2	59	38.1%	13	142	97.6%
Cycle Time	120 secs			120 secs		
Overall Junction Practical Reserve Capacity	-0.1%			-8.5%		
Overall Junction Delay (pcuHr)	29.38			42.71		

5.34 As can be seen from **Table 5.10**, when the Murch Road / Millbrook Road / A4055 Cardiff Road signalised crossroads are run without a pedestrian stage, the junction operates with a maximum DoS of 77% on Cardiff Road (NE) during the PM Peak hour, with a maximum queue of 21 vehicles. The junction overall has a PRC of 36.6% in the AM and 16.4% in the PM.

5.35 In the 2020 future year, the overall PRC decreases to 27.2% in the AM and 8.5% in the PM. The DoS increases to 82.7% on the Cardiff Road (NE) arm with a queue of 24 during the PM peak hour.

5.36 In the 2020 future year plus committed scenario, the overall PRC decreases to 18.8% in the AM and 2.5% in the PM. The DoS increases to 87.7% on the Cardiff Road (NE) arm with a queue of 27 during the PM peak hour and also increases to 87.8% on the Murch Road, and 87.3% on Millbrook Road.

5.37 In the 2020 future year with committed and the proposed development, the overall PRC decreases to -0.1% in the AM and -8.5% in the PM. The Dos increases to 90.1% on Cardiff Road (NE) and to 87.9% on Murch Road in the AM and increases to 96.6% on Cardiff Road (NE), 93.8% on Murch Road and 97.6% on Millbrook road in the PM. The maximum queue is on Cardiff Road (NE) during the PM, which is an increase to 36 vehicles. This is an increase in nine vehicles in comparison to the 2020 + Committed Baseline.

5.38 It is considered unlikely that the signalised junction will operate without a pedestrian stage being called. Therefore, this scenario has been included below.

Table 5.11: Summary Results of the Murch Road / Millbrook Road / A4055 Cardiff Road – Signalised Cross Roads – Assuming Pedestrian Stage

Entry	Base Year 2015					
	AM Peak (08:00 – 09:00)			PM Peak (17:00 – 18:00)		
	MMQ	Delay (sec/pcu)	DoS	MMQ	Delay (sec/pcu)	DoS
Cardiff Road NE	19	44	81.1%	27	54	91.4%
Murch Road	10	66	79.2%	11	108	90.1%
Cardiff Road SW; left/ahead	16	38	73.0%	14	31	61.3%
Cardiff Road SW; right	2	71	35.3%	1	68	23.8%
Millbrook Road	2	52	32.9%	9	93	88.8%
Cycle Time	220 secs			220 secs		
Overall Junction Practical Reserve Capacity	11.0%			-1.5%		
Overall Junction Delay (pcuHr)	20.09			28.18		
Entry	**Forecast Year 2020**					
	AM Peak (08:00 – 09:00)			PM Peak (17:00 – 18:00)		
	MMQ	Delay (sec/pcu)	DoS	MMQ	Delay (sec/pcu)	DoS
Cardiff Road NE	22	50	87.0%	36	82	98.1%
Murch Road	12	75	85.0%	14	144	96.9%
Cardiff Road SW; left/ahead	18	41	78.4%	15	32	65.9%

Entry	Forecast Year 2020					
	AM Peak (08:00 – 09:00)			PM Peak (17:00 – 18:00)		
	MMQ	Delay (sec/pcu)	DoS	MMQ	Delay (sec/pcu)	DoS
Cardiff Road SW; right	1	72	37.7%	1	69	25.4%
Millbrook Road	2	52	35.0%	12	121	95.2%
Cycle Time	220 secs			220 secs		
Overall Junction Practical Reserve Capacity	3.4%			-9.0%		
Overall Junction Delay (pcuHr)	23.85			40.79		

Entry	Forecast Year 2020 with Committed					
	AM Peak (08:00 – 09:00)			PM Peak (17:00 – 18:00)		
	MMQ	Delay (sec/pcu)	DoS	MMQ	Delay (sec/pcu)	DoS
Cardiff Road NE	27	66	93.7%	59	164	104.5%
Murch Road	16	94	92.4%	21	194	102.4%
Cardiff Road SW; left/ahead	19	44	80.3%	16	34	67.3%
Cardiff Road SW; right	3	81	53.3%	2	75	41.0%
Millbrook Road	2	53	35.0%	17	186	101.6%
Cycle Time	220 secs			220 secs		
Overall Junction Practical Reserve Capacity	-4.1%			-16.1%		
Overall Junction Delay (pcuHr)	30.62			70.55		

Entry	Forecast Year 2020 with Committed Development + Development					
	AM Peak (08:00 – 09:00)			PM Peak (17:00 – 18:00)		
	MMQ	Delay (sec/pcu)	DoS	MMQ	Delay (sec/pcu)	DoS
Cardiff Road NE	67	254	109.4%	102	354	115.0%
Murch Road	49	290	110.4%	39	345	113.2%
Cardiff Road SW; left/ahead	22	61	90.0%	18	37	69.6%
Cardiff Road SW; right	4	94	67.3%	3	92	66.5%
Millbrook Road	2	53	35.0%	24	289	108.9%
Cycle Time	220 secs			220 secs		
Overall Junction Practical Reserve Capacity	-22.7%			-27.8%		
Overall Junction Delay (pcuHr)	99.78			144.65		

5.39 As can be seen from **Table 5.11**, when the Murch Road / Millbrook Road / A4055 Cardiff Road signalised crossroads are run with a pedestrian stage, the junction operates with a maximum DoS of 91.4% on Cardiff Road (NE) during the PM Peak hour, with a maximum queue of 27 vehicles. The junction overall has a PRC of 11.1% in the AM and -1.5% in the PM.

5.40 The results demonstrate that with a pedestrian phase being called every cycle there is less capacity available. However, it is unlikely that the pedestrian stage will be called every cycle, this therefore represents a worst-case scenario. The queue lengths observed from the traffic surveys are close to those presented in the LinSig results with the pedestrian phase called every cycle. The results show that the junction is close to its theoretical capacity in the AM Peak and overcapacity in the PM Peak.

5.41 In the 2020 future year, the overall PRC decreases to 3.4% in the AM and -9% in the PM. The DoS increases to 87% on the Cardiff Road (NE) arm with a queue of 22 during the AM peak and to 98.1% with a queue of 36 during the PM peak. The DoS on Murch Road increases to 85% in the AM Peak and to 96.9% in the PM Peak. The DoS increases on Millbrook Road to 95.2% in the PM.

5.42 In the 2020 future year plus committed scenario, the overall PRC decreases to -4.1% in the AM and -16.1% in the PM, which shows that the junction will be operating over capacity in both scenarios. The DoS increases to 93.7% on the Cardiff Road (NE) arm with a queue of 27 and to 92.4% on Murch Road with a queue of 16 during the AM peak. The DoS for Cardiff Road (NE), Murch Road and Millbrook Road increases to over 100% during the PM peak.

5.43 In the 2020 future year with committed and the proposed development, the overall PRC decreases to -22.7% in the AM and 27.8% in the PM. The DoS for Cardiff Road (NE) and Murch Road increases to over 100% during the AM peak and Cardiff Road (SW; left/ahead) increases to 90%. The DoS for Cardiff Road (NE), Murch Road and Millbrook Road remains over 100% during the PM peak. The maximum queue at the junction is on the Cardiff Road (NE) arm during the PM, with a queue of 102 vehicles.

5.44 The signalised crossroads are operated on a Microprocessor Optimised Vehicle Actuation (MOVA) system, whereby the signal timings change on a cycle-by-cycle basis adjusting to the traffic situations as they are forming. LinSig, works on optimised fixed timings and as such is unable to accurately reflect the actual operation of the lights. The provision of MOVA will maximise the capacity of this junction and as such the actual delays at this junction will be less than that shown. It should be noted that when high degrees of saturation are predicted by the LinSig model, the queue lengths may be unreliable.

5.45 The above analysis in **Table 5.11** assumes that the áall redô pedestrian stage is called every cycle, whereas in practice the pedestrian stage is called far less often, particularly during the PM Peak period. Therefore, the junction may operate between the results shown in **Table 5.10** and **Table 5.11**.

5.46 Vale of Glamorgan had confirmed (Planning Ref: 2014/00282/OUT) that a reduction of 13% can be applied to the DoS when MOVA is installed. It is therefore considered that the impact of the development will be significantly less than that shown in the results tables above.

Traffic Impact Assessment Summary

5.47 Trip generation, distribution and junction capacity modelling has been undertaken based upon the Scoping discussions with Vale of Glamorgan Council, and is considered to represent a robust assessment as background growth as well as committed development trips have been added to the network.

5.48 The results of the modelling indicate that the proposed development of 220 dwellings at the previous St Cyres Lower School site, can be adequately accommodated on the local junctions to the site.

5.49 The existing Cardiff Road / Millbrook Road / Murch Road Signalised Cross Roads is a constrained junction and is currently operating close to its design capacity. The operation of this junction is controlled using MOVA which maximises the operating capacity of junctions. The additional traffic generated from the proposed development will have an impact on the operation of this junction, although it is not considered to be severe.

5.50 It is therefore considered that encouraging and facilitating sustainable travel will assist in reducing the number of vehicle trips on the network will offer the most effective means of mitigation. This will be focused through the provision of a Travel Plan which has been prepared as a standalone document and submitted as part of this planning application, further details of this are provided in Chapter 6.

6 TRANSPORT IMPLEMENTATION STRATEGY

Introduction

6.1 A Transport Implementation Strategy (TIS) is a package that sets the objectives and targets relating to managing travel demand for the development. The following Chapter summarises the improvements proposed as part of the proposed development which will ensure that safe, attractive and robust means of access are in place for all transport modes as well as encouraging modal shift and sustainable travel choices for future residents.

Travel Plan

6.2 A Travel Plan has been prepared as a separate document, (RPS Report: JNY8501-03a) which has also been submitted in support the planning application for the proposed development. The Travel Plan has been prepared in-line with current national guidance and suggests measures to promote sustainable modes of transport to future residents.

6.3 As with all new residential developments, it is important to try and reduce the number of car-borne trips particular during peak hours, however this can only be realistically achieved by offering travel choice from the outset. Choice also promotes social inclusion for the development and the surrounding community.

6.4 The TP encourages sustainable trip making and reduction in car-borne trips from the development in line with both central and local government objectives.

6.5 The Travel Plan for the site includes the following sections:

- Introduction;
- Background to the development;
- Transport Data;
- A commitment to conduct a baseline travel survey;
- Objectives of the Travel Plan;
- Targets ï SMART;
- Measures ï to explain how the targets will be achieved;
- Management of the Travel Plan; and
- Monitoring and Review.

6.6 Travel Plans ('TP') have become an important tool for the delivery of national, regional and local transport policy and commonly play an integral aspect within the planning process, fulfilling a role in encouraging more sustainable development.

6.7 TPs are a strategy for managing multi-modal access to a site or development, focusing on promoting and incentivising access by sustainable modes. A successful TP will provide a choice of travel options and encourage more sustainable ones.

6.8 A TP has been included in the planning application for the development for the residential developments. The TP sets out how a range of measures will be introduced at the development to actively encourage the new residents to use sustainable modes of travel. The overarching objectives which underpin the TP are to:

- Reduce the traffic generated by the development to a lower level than would normally be predicted without the implementation of a TP, in order to further increase the benefits along the local highway network;
- Encourage those travelling to and from the development to use public transport, cycle or walk in a safe and secure manner; and
- Promote healthy lifestyles and sustainable, vibrant local communities.

6.9 The approach and measures set out in the TP accord with national, regional and local Government objectives and seek to:

- Achieve further reductions in traffic on surrounding roads;
- Promote equal opportunities to residents by offering wider travel choices;
- Develop places for people that encourage community interaction and avoid a car-dominated environment;
- Reduce the cost of personal travel and saving households money through promoting opportunities for cost savings such as car-sharing;
- Improve personal and wider community health; and
- Reduce air and noise pollution.

6.10 Information would be prepared prior to the sales of properties and sales/marketing staff will be encouraged to promote sustainable travel and sell the TP aspect of the development to potential buyers. Before residents have started to occupy the development, a TP Coordinator will be in place and henceforth will work alongside any emerging residents group.

6.11 The TP sets out the implementation and timescale for monitoring of the impact of the proposed development.

Accessibility

6.12 The site is located approximately 5.3 miles from Cardiff. The main route through the area of Dinas Powys is Cardiff Road (A4055) which runs east to Barry and west to Penarth. It is identified by the Vale of Glamorgan as a strategic transport corridor and is a bus priority corridor.

6.13 The site is accessible from the adopted public highway of Murch Crescent / Murch Road to the north. The existing access to the school site is effectively a cul-de-sac for vehicles, with Murch Road only serving farm buildings to the east of the site. The access to the east that links to Sully Road is unmade but is suitable for pedestrians and cyclists.

6.14 The site is located at the end of Murch Road which is a residential area with good footway provision along both sides of the road. From Murch Road, walking routes are available to all residential areas south of Cardiff Road via Castle Drive to the east and Plas Essyllt to the west. In addition, Ash Path leads to Sully Road (just over 600m away) and provides access to the residential area to the west of Redlands Road, Penarth.

6.15 There are no formal cycle routes through Dinas Powys although advanced cyclestop lines are provided at the junction of Cardiff Road/Murch Road.

6.16 There are a wide range of local facilities within close proximity of the site, within the Manual for Streets ówalkable neighbourhoodô distance of 800m. There is a continuous footway route from the site to the local facilities. Most local roads provide footways on both sides of the carriageway.

6.17 In addition to the various areas of local facilities in close proximity to the site, the centre of the village of Dinas Powys is located at The Square, approximately 1.6km to the north-west of the development site. It can be accessed using two alternative routes:

- via Millbrook Road to the north-west at the Cardiff Road / Murch Road crossroads and then via Mill Road; or
- via Cardiff Road south-west and Elm Grove Road north-west.

6.18 The nearest bus stop is located on Plas Essyllt approximately 790 metres from the site via Murch Road opposite the Post Office. There are regular bus services routing through Dinas Powys, although it is noted that

6.19 The two closest stations are Eastbrook Rail Station, located 1.5km from the site, and Dinas Powys Rail Station, located 1.6km from the site. Both stations are serviced by routes to Aberdare, Barry Island, Merthyr Tydfil and Bridgend.

6.20 Overall, the multiple bus routes, the two rail stations and the close proximity of a wide range and choice of local facilities highlight the sustainable location of the proposed site in accordance with Planning Policy Wales and TAN18. The development will provide footways throughout the development that will link to existing footway provisions on the local network.

6.21 Promotion of local footways and footpaths, local facilities and the time it takes to walk or cycle to them, as well as bus and rail timetables will promote the use of sustainable travel over vehicle travel. This will be promoted within the Travel Plan.

Summary

6.22 The promotion of sustainable travel is intended to increase travel by these modes together with providing safe and attractive linkages to the existing bus stops and local facilities located within Dinas Powys.

6.23 A Residential Travel Plan has been developed and will be introduced to future residents of the site to raise awareness and encourage the use of sustainable transport modes.

7 SUMMARY AND CONCLUSIONS

7.1 This Transport Assessment (TA) report assesses the transport implications of a proposed mixed use development of land at the previous site of St Cyres Lower School, Murch Road, Dinas Powys for circa 220 dwellings and 3 hectares of Community and Recreation Use Zone.

7.2 The forthcoming planning application is accompanied by a Travel Plan prepared in accordance with Planning Policy Wales, Chapter 8 Transport and Planning Policy Wales Technical Advice Note (TAN) 18.

7.3 The site is well located to encourage travel by sustainable modes of transport. The centre of Dinas Powys is located around 1.5 km to the west of the site where there is a wide range of employment, shopping, education, leisure and healthcare facilities within a reasonable walking and cycling distance and accessible using public transport. The planning application is accompanied by a Travel Plan (RPS report reference JNY8501-03) to encourage travel using sustainable modes and discourage single occupancy car trips.

7.4 Pedestrian and cycle links would be created to provide a sustainable travel network through the site. Access to the wider area would be available through the primary accesses onto Murch Road / Murch Crescent which links the site to the centre of Dinas Powys via a good network of local footways and footpaths.

7.5 It is clear from analysis of census journey to work data that there is considerable opportunity to encourage modal shift away from private car and onto sustainable modes. The site is well served by footways and nearby bus stops for access by sustainable modes of travel. There is a clear opportunity to encourage walking and cycling for a wide range of journey purposes. The planning application will be accompanied by a Residential Travel Plan.

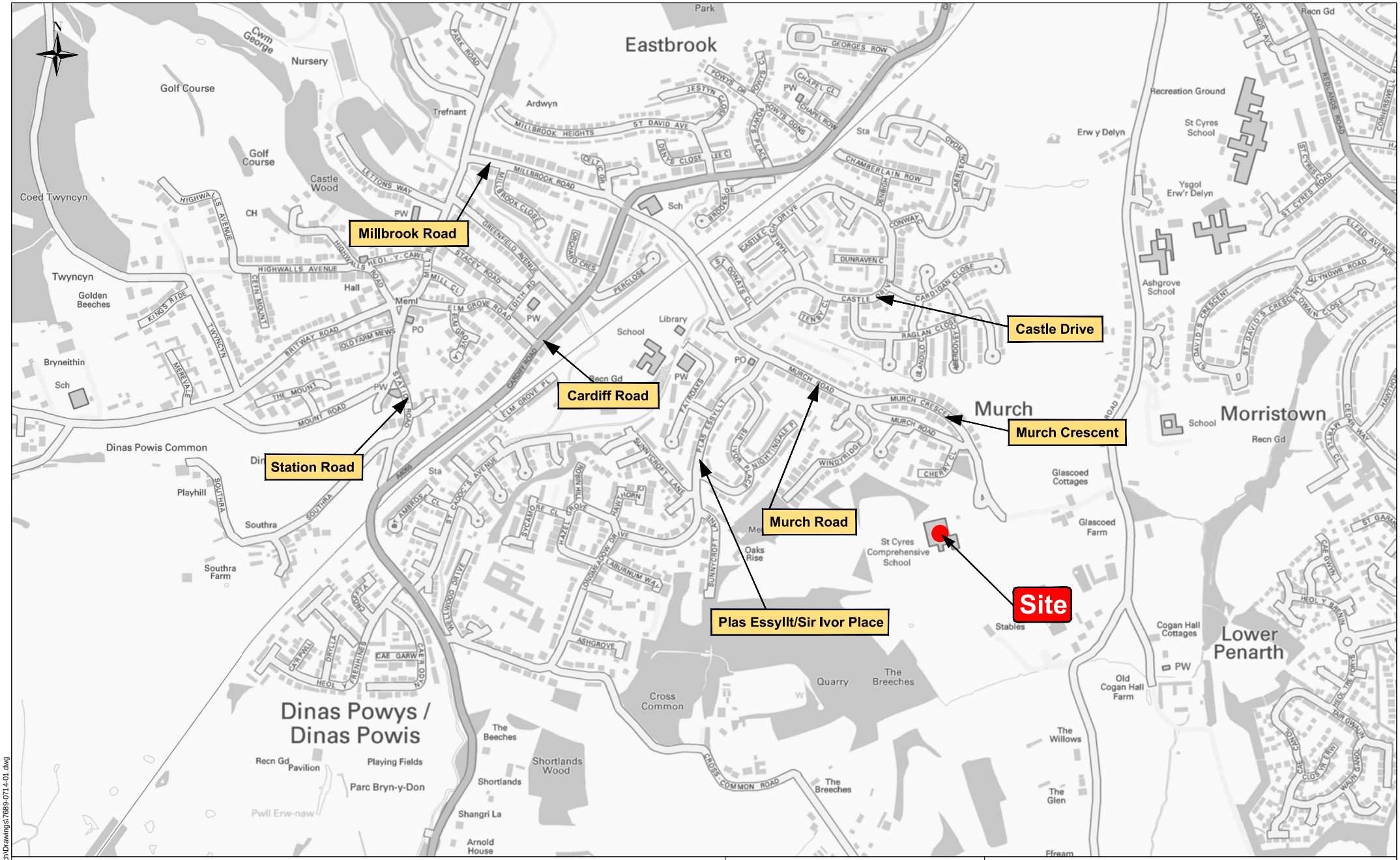
7.6 The access to the development will be via the existing site access onto Murch Road. Currently, a gyratory system is in place, whereby movement into the site and out of the site follows a one-way system around grassed island on Murch Road. It is proposed that the access arrangements for the site, will involve introducing a two-way movement into the site access, by way of reducing the size of the grassed island.

7.7 The impact of development traffic on the nearby road network and junctions has been assessed based upon the methodology agreed with Vale of Glamorgan Council. The results of the modelling indicate that the proposed development traffic can be adequately accommodated on the local junctions to the site. The existing Cardiff Road / Millbrook Road / Murch Road Signalised Cross Roads is a constrained junction and is currently operating close to its design capacity. The operation of this junction is controlled using MOVA which maximises the operating capacity of junctions. The additional traffic generated from the proposed development will have an impact on the operation of this junction, although it is not considered to be severe.

7.8 It is considered that encouraging and facilitating sustainable travel through the Travel Plan will reduce the number of vehicle trips on the network will offer the most effective means of mitigation.

7.9 Based on the above it is therefore considered that, in transportation terms, there are no overriding or sustainable reasons why the development proposals should not be approved.

FIGURES



RPS

Project: ST CYRES LOWER SCHOOL

Title: SITE LOCATION PLAN

Date: NOV 2015 | Scale: 1:10,000 | Rev: -

Drwg. No: JNY8501 | Drawn: AVG | Checked: AN

Figure No: 1

Transport

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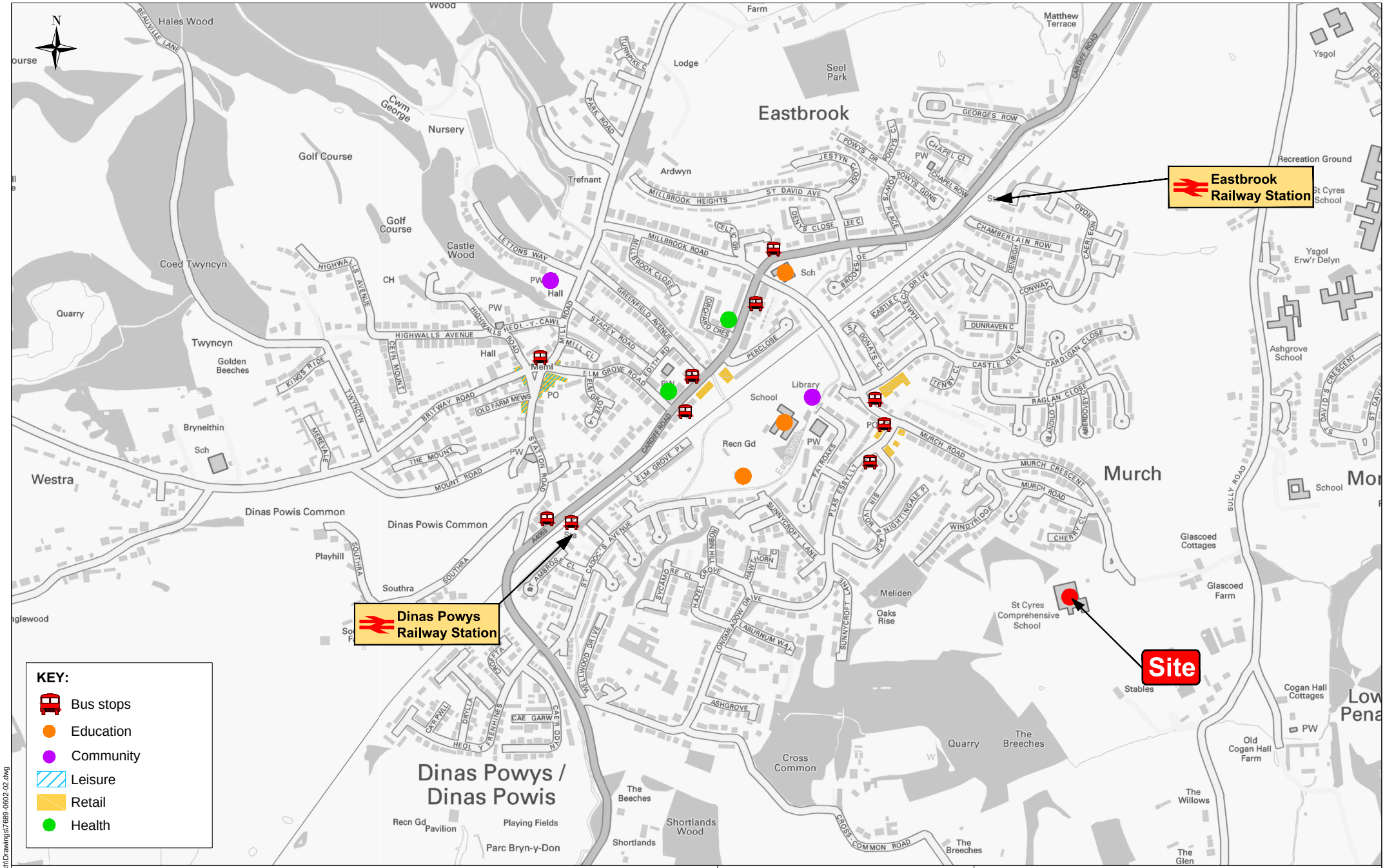

RPS

Project: ST CYRES LOWER SCHOOL

Title: LOCAL FACILITIES PLAN

Figure No: 2

Date: NOV 2015 | Scale: 1:10,000 | Rev: A

Drwg. No: JNY8501 | Drawn: AVG | Checked: AN

Transport

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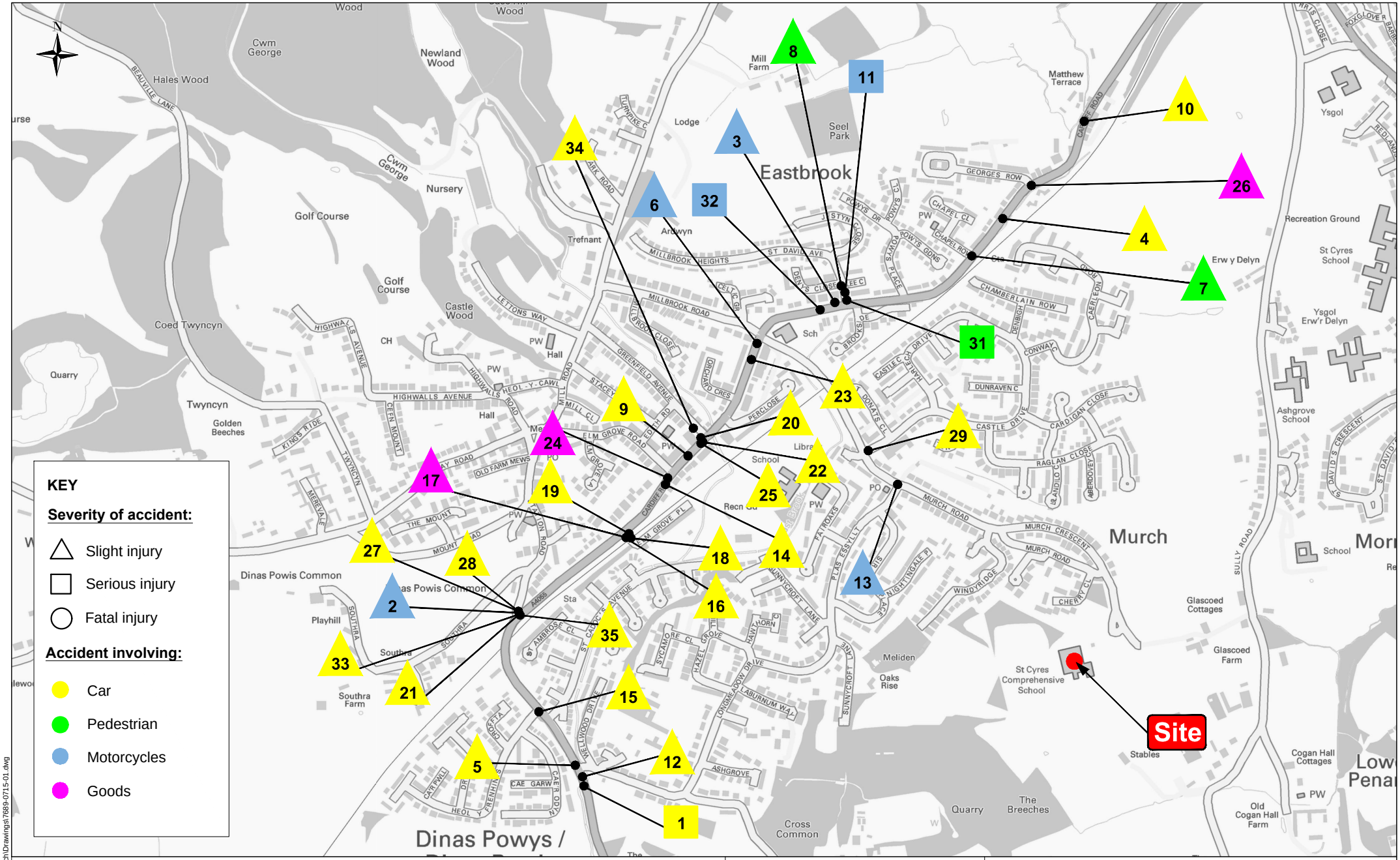

RPS

Project: ST CYRES LOWER SCHOOL

Title: PERSONAL INJURY ACCIDENT DATA

Figure No: 1

Date: NOV 2015 | Scale: 1:10,000 | Rev: -

Drwg. No: JNY8501 | Drawn: AVG | Checked: AN

Transport

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APPENDICES

APPENDIX A – PLANNING LAYOUT

ACCOMMODATION SCHEDULE

Exeter	Ex	1484	10
Layton	La	1611	9
Chelworth	Ch	1703	7
Holden	Ho	1536	8
Cornell	Co	1374	4
Bradgate	Ba	1441	7
Moresby	Mo	854	6
Buchanan	Bu	875	3
Richmond	Ri	711	10
Maidstone	Md	830	21
Collaton	Cl	863	15
Eskdale	Es	1058	9
Ennerdale	En	917	2
Andover	An	998	4
Kingsley	Ki	1080	8
Hemsworth	He	1152	1
Alderney	Ad	1225	7
Radliegh	Ra	1317	1
Washington	Wa	615	26
Alder	Al	570	20
Olive	Ol	861	35
Larch	Lh	998	4
Cherry	Cy	1179	3
Total			220

THE CONTRACTOR IS TO COMPLY IN ALL RESPECTS WITH CURRENT BUILDING BUILDING LEGISLATION, N.H.B.C. AND BUILDING REGULATIONS WHETHER OR NOT SPECIFICALLY STATED ON THIS DRAWING.

THIS DRAWING MUST BE READ & CHECKED AGAINST ANY STRUCTURAL GEOTECHNICAL OR OTHER SPECLIST DOCUMENTATION OR PLANS PROVIDED.

THIS DRAWING IS NOT INTENDED TO SHOW DETAILS OF FOUNDATIONS, GROUND CONDITIONS OR GROUND CONTAMINANTS. EACH AREA OF GROUND RELIED UPONTO SUPPORT ANY STRUCTURE DEPICTED (INCL. DRAINAGE) MUST BE INVESTIGATED BY THE CONTRACTOR. A SUITABLE METHOD OF FOUNDATION SHOULD BE PROVIDED ALLOWING FOR EXISTING GROUND CONDITIONS. ANY EARTHWORK CONSTRUCTIONS SHOWN INDICATE TYPICAL SLOPES FOR GUIDANCE ONLY AND SHOULD BE FURTHER INVESTIGATED BY A SUITABLE EXPERT.

WHERE EXISTING TREES ARE SHOWN TO BE RETAINED THEY SHOULD BE SUBJECT TO A FULL ARBORICULTURAL INSPECTION FOR SAFETY. A SUITABLE METHOD OF FOUNDATION IS TO BE PROVIDED TO ACCOMMODATE PROPOSED TREE PLANTING.

General Notes

Rev	Date	By	Comment
B	08.08.17	IB	Redline revised to Client comment
A	06.07.17	IB	Entrance arrangement and plots 37-41 & 50-52 revised to Client instructions

RESIDENTIAL DESIGN
PLANNING
CIVIL ENGINEERING DESIGN

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Client
Barratt & David Wilson Homes
South Wales

Project Title
St Cyres
Dinas Powys

Drawing Title
Planning Layout

Drawing Status

Drawn By	Scales		Date
DA	1:500	A0	June 2017

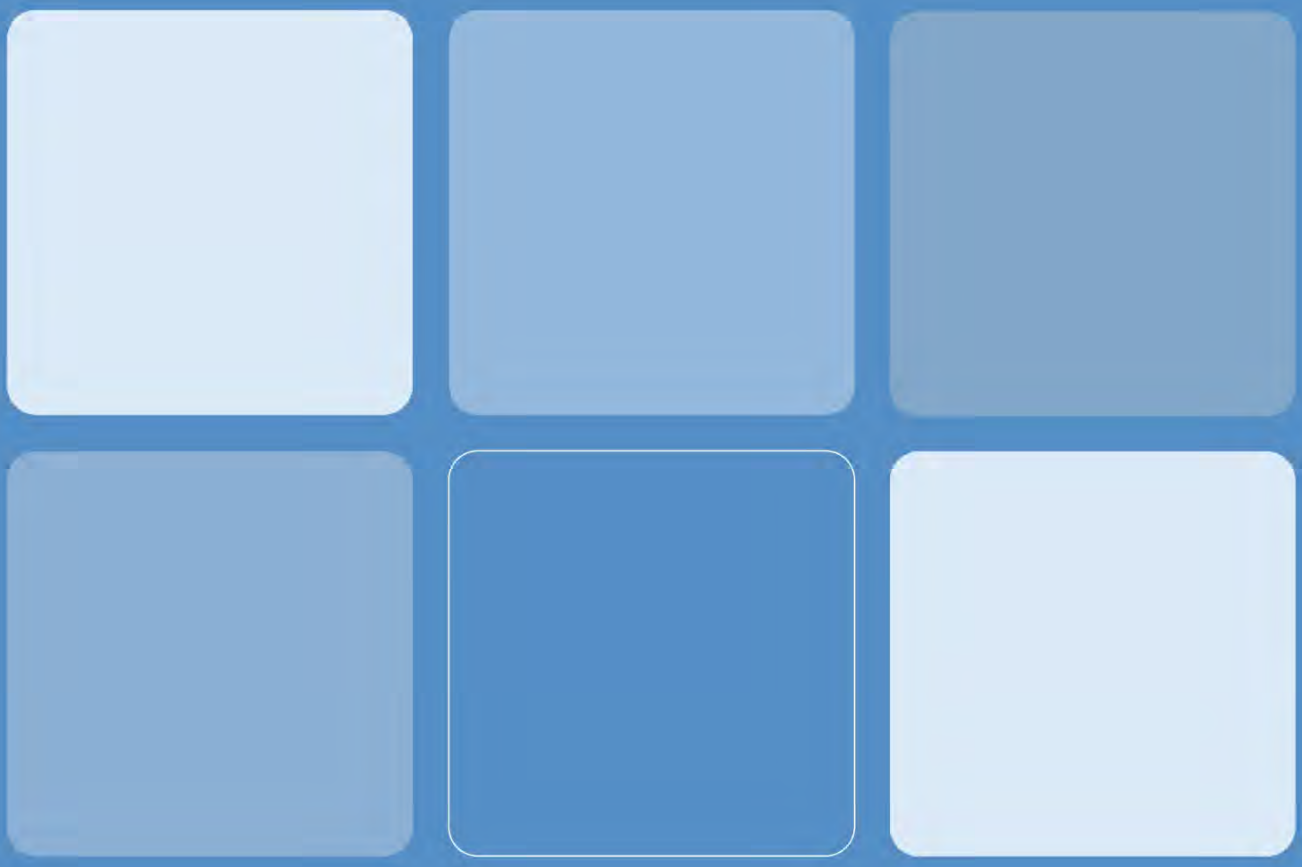
Job No.	Drawing No.	Rev.
1540	100	B

APPENDIX B – SCOPING CORRESPONDANCE WITH VALE OF GLAMORGAN COUNCIL

RPS

FORMER ST CYRES LOWER SCHOOL SITE, MURCH ROAD, DINAS POWYS

TRANSPORT SCOPING REPORT



FORMER ST CYRES LOWER SCHOOL SITE, MURCH ROAD, DINAS POWYS

TRANSPORT SCOPING REPORT

12 May 2015

Our Ref: AW/AN/sb/JNY8501-01

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QUALITY MANAGEMENT

Prepared by:	**Alice Nolan**
Authorised by:	**Andy Wells**
Date:	**12 May 2015**
Project Number/Document Reference:	**AW/AN/sb/JNY8501-01**

CONTENTS

1 INTRODUCTION

Background

1.1 RPS has been commissioned by Barratt Homes South Wales to provide this Transport Scoping note to agree the scope of and the parameters for the Transport Assessment of a proposed residential development comprising circa 265 dwellings on land at the former St Cyres Lower School site in Murch Road, Dinas Powys (CF64 4RF). The site location is shown in Figure 1.

1.2 The site is a located approximately 5.3 miles from Cardiff and is accessible from the adopted public highway of Murch Crescent / Murch Road. The previous school on the site is now ceased operation and thus the school site is brownfield land. The site is bounded to the north by an existing suburban housing estate and to the south and east by agricultural land and woodland.

1.3 The site is approximately 12.05 hectares in size and lies within the Council's Deposit Local Development Allocation Area of 13.30 hectares, this consists of the 12.05 council development area for mixed use development including residential, community and recreational uses, 0.90 hectare third party land site, and 0.35 hectare site for a Medical centre of which planning permission has already been obtained.

1.4 The Strategic Brief: A Guide for Bidders (2014) suggests that 9.05 hectares should be utilised for residential development and 3 hectares should be a community hub area.

1.5 From the current site access, Murch Road provides a route for vehicles, pedestrians and cyclists to a range of facilities located off Plas Essyllt to the south and Cardiff Drive to the north. It also provides a route to the Cardiff Road crossroads that links to Eastbrook station to the north-east and Dinas Powys station to the south-west. Further to the west there are additional local facilities and community areas.

1.6 A local facilities plan is provided as Figure 1.

Policy Context

Planning Policy Wales: Chapter 8 Transport

1.7 Planning Policy Wales sets out the land planning policies for the Welsh Government. It is supplemented by a series of Technical Advice Notes. Each chapter of the document details the main policy objectives and principles which deal with particular subjects. Chapter 8 sets out what the Welsh Government aims to do in terms of Transport within Wales. It is aiming to extend choice in transport and support sustainable development to help tackle climate change.

1.8 Planning Policy Wales 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 public transport, walking and cycling.

1.9 Paragraph 8.7.2 states:

> **"Transport Assessments (TA) are an important mechanism for setting out the scale of anticipated impacts on the proposed development, or redevelopment, Is likely to have. They assist in helping to anticipate the impact of development so that they can be understood and catered for."**

1.10 The TA should provide the basis for negotiation on scheme details as well as including the level of parking, and measures to improve public transport access, walking and cycling.

Planning Policy Wales Technical Advice Note (TAN) 18

1.11 Planning Policy Wales Technical Advice Note (TAN) 18: Transport encourages the use of sustainable modes of travel over private car trips. Paragraph 3.4, under the heading 'Accessible housing development', states inter alia:

> **"Settlement policies and residential allocations in development plans should therefore:**
>
> **Promote housing development at locations with good access by walking and cycling to primary and secondary schools, public transport stops, and by all modes to employment, further and higher education, services, shopping and leisure, or where such access will be provided as part of the scheme or is a firm proposal in the RTP"**

1.12 Paragraph 6.1 under the heading 'walking and cycling' states, inter alia:

> **"It is imperative that local authorities take into consideration the needs of walkers and cyclists in all development planning decisions, in line with the Assembly Government's strategy for Walking and Cycling."**

2 SITE CONTEXT

Existing Access Arrangements

2.1 The site is accessible from the adopted public highway of Murch Crescent / Murch Road to the north. The existing access to the school is effectively a cul-de-sac for vehicles, with Murch Road only serving farm buildings to the east of the site. The access to the east that links to Sully Road is unmade and, whilst suitable for pedestrians and cyclists, would not be suitable or promoted for access by vehicles.

2.2 There is a continuous footway route from the site to the local facilities. Most local roads provide footways on both sides of the carriageway.

Local Facilities and Accessibility

2.3 Manual for Streets identifies 'walkable neighbourhoods' as "typically characterised by having a range of facilities within 10 minutes' (up to about 800 m) walking distance of residential areas which residents may access comfortably on foot". However, this is not an upper limit. Paragraph 2.3 of the Design Manual for Roads and Bridges TD91/05 "Provision for Non-Motorised Users" states:

> **"Walking is used to access a wide variety of destinations including educational facilities, shops, and places of work, normally within a range of up to 2 miles. Walking and rambling can also be undertaken as a leisure activity, often over longer distances".**

2.4 For cycling journeys, Local Transport Note 2/08 "Cycle Infrastructure Design" states:

> **"many utility cycle journeys are under 3 miles although, for commuter journeys, a trip distance of over 5 miles is not uncommon".**

2.5 There are a wide range of local facilities within close proximity of the site, within the Manual for Streets 'walkable neighbourhood' distance of 800m and accessible via footways from the site. The local facilities and their position on the local road network are provided in **Table 2.1** and **Figure 1**.

Table 2.1: Local Facilities Location

Road	Facilities	Distance from site
Plas Essyllt (St Ivor Place)	Ironing 4 U Community Care Butchers Doggy Parlour Hair Design Chemist	Approximately 0.4 miles (650m) / 8 minutes' walk
Castle Drive	Tesco's Supermarket Mc'Colls Hung House Joe's Chippy Fruit Store A Class Apart	Approximately 0.5 miles (800m) / 10 minute walk

Road	Facilities	Distance from site
Cardiff Road	Eastbrook Railway Station	Approximately 0.7 miles (1.1km) / 14 minutes' walk
	Dinas Powys Health Centre	Approximately 0.8 miles (1.3km) / 15 minutes' walk
	Texaco Petrol Station Spar Bugden's Peter Mulcahy (Estate Agents) Miah's (Indian Take Away) Pharmacy	Approximately 0.9 miles (1.4km) / 16 minutes' walk
	Dinas Vets Jon Coombes (Estate Agents) Happy Garden (Take Away)	Approximately 0.9 miles (1.4km) / 16 minutes' walk
	Dinas Powys Railway Station	Approximately 1.1 miles (1.7km) / 21 minutes' walk
Station Road	Dinas Powys Common	Approximately 1.3 miles (2.1km) / 24 minutes' walk
The Square	Potter & Co. (Accountants) La Boheme (Health and Beauty) Green Willow Funerals The Star Inn Dinas Fish Bar Balti Tandoori (Take Away) Mirrors (Hair Stylists) The Green Room (Flower Shop) The Huntsman Restaurant The Village Stores Walk-in Barbers Head-To-Head Dinas Powys Post Office Three Horseshoes	Approximately 1.2 miles (1.9km) / 23 minutes' walk
Elm Grove Road	Natwest The Wild Blackberry Cross Keys Capital Racing West Lake Chop Suey House	Approximately 1.1 miles (1.7km) / 21 minutes' walk
Mill Road	Happy Embroidery	Approximately 1.1 miles (1.7km) / 21 minutes' walk
	St Peter's Church	Approximately 1 mile (1.6km) / 20 minutes' walk

2.6 In addition to the various areas of local facilities in close proximity to the site, the centre of the village of Dinas Powys is located at The Square, approximately 1.6km to the north-west of the development site. It can be accessed using two alternative routes:

- via Millbrook Road to the north-west at the Cardiff Road / Murch Road crossroads and then via Mill Road; or
- via Cardiff Road south-west and Elm Grove Road north-west.

2.7 This area is the main community and leisure hub within Dinas Powys and includes a number facilities detailed in **Table 2.1** including Dinas Powys Post Office. The Square Post Office bus stop is serviced by route 86.

Access by Public Transport

2.8 The nearest bus stop is located on Plas Essyllt approximately 790 metres from the site via Murch Road. The various other bus stops aforementioned are serviced by the routes summarised below in **Table 2.2**.

Table 2.2: Bus Services

Service Number	Stop	Operator and Route	First Service (weekday)	Last Service (weekday)	Frequency (per hour)				
					Weekdays			Weekends	
					AM Peak	Inter Peak	PM Peak	Sat	Sun / BH
89A/B	Dinas Powys (Village Square)	Watts Coaches Dinas Powys - Cardiff	07:50	16:00	No Service	Every 2 hours	No Service	5 per day	No Service
93	Post Office	Cardiff Bus Barry - Dinas Powys - Sully – Penarth - Cardiff	07:30	17:58	1	1	1	1	No Service
S77	Dinas Powys Square	Landough – Barry College	08:09	15:28	No Service	1 service in / Out bound)	No Service	No Service	No Service
86 (Thursdays and Saturdays only)	Dinas Powys Railway Station	Barry Garden Suburb – Culverhouse Cross	09:59	12:59	No Service	1 service (in / Out bound)	No Service	1 service (in / Out bound)	No Service
95	Dinas Powys Railway Station	Cardiff Bus Barry – Dinas Powys - Llandough – Cardiff - Heath Hospital	06:32	20:24	2	2	2	2	5 per day
304	Eastbrook Railway Station	Cardiff – Dinas Powys - Barry	06:25	23:35	2	1	1	1	No Service

Source: Traveline (May 2015)

2.9 The two closes stations are Eastbrook Rail Station, located 1.5km from the site, and Dinas Powys Rail Station, located 1.6km from the site. Both stations are serviced by routes to Aberdare, Barry Island, Merthyr Tydfil and Bridgend. A summary of these services from the Eastbrook Station are detailed in **Table 2.3** below.

Table 2.3: Rail Services from Eastbrook Railway Station

Service Number	First Service (weekday)	Last Service (weekday)	AM Peak	Inter Peak	PM Peak	Sat	Sun / BH
Aberdare	05:32	23:28	2	1-2	2	1-2	1 every 2 hours
Barry Island	05:30	23:41	3	3	3	3	1-2
Merthyr Tydfil	05:32	23:28	2	1-2	2	1-2	1 every 2 hours
Bridgend	05:32	23:28	4	3-4	4	4-5	2

Source: National Rail (May 2015)

2.10 Overall, the multiple bus stops, the two rail stations and the close proximity of a wide range and choice of local facilities highlight the sustainable location of the proposed site in accordance with Planning Policy Wales and TAN18.

3 PROPOSED TRANSPORT ASSESSMENT

Development Proposals

3.1 It is proposed to submit a Planning Application for development of circa 265 dwellings, in line with Appendix 5 'Housing Allocations (Policy MG2): Individual Site Details' of the written statement (Nov 2013) of the Vale of Glamorgan Council's Deposit Local Development Plan (2011 – 2026); this proposes that 35% of the dwellings within the proposed site should be affordable houses and it is anticipated that the site would comply with this policy.

3.2 The site development would be a mixture of circa 93 affordable houses and 172 private houses. The affordable housing is anticipated to be provided on site at a tenure of 80% social rented housing and 20% intermediate housing. This equates to 74 socially rented dwellings and 19 intermediate dwellings.

3.3 It is proposed to submit a Transport Assessment (TA), Transport Implementation Strategy (TIS), and Framework Travel Plan (FTP) in accordance with TAN 18. This Transport Scoping Note sets out the proposed content of these assessment documents for agreement with Vale of Glamorgan Council.

Access Proposals

3.4 It is proposed to access the site in the vicinity of the existing current primary access to the site on Murch Road, which previously served the school on the site. Proposed access points onto Murch Road would be designed in accordance with local design standards and Manual for Streets and would be accessed through junction modelling.

3.5 As the access(es) would be within the residential area of Dinas Powys, it is proposed to assess all access points against Manual for Streets visibility standards. Swept paths of refuse vehicles would also be checked for each access point.

Site Layout and Parking Provision

3.6 As the application is to be submitted in Outline, an illustrative masterplan would be submitted by the Applicant confirming that the site can accommodate the level of housing proposed along with the required roads, services, landscaping etc. Parking would be indicated on this plan to local authority parking standards. The precise layout and parking would be confirmed in more detail through a subsequent Reserved Matters planning application

Policy Context

3.7 A review of the relevant national and local transport policy documentation will be undertaken within the Transport Assessment to ensure that the proposals are in line with current policy.

Access by Sustainable Modes of Travel

3.8 A summary of accessibility of the site and access by sustainable modes is provided in Section 2 of this document. The Transport Assessment will provide a more detailed analysis of the access to the site by sustainable transport modes of travel and the accessibility of local facilities and services in the vicinity of the site. This will include an assessment of residents' opportunities to travel on foot, by bicycle, and using public transport.

3.9 Access to wider facilities such as employment, health, leisure and retail will be considered in more detail in the Transport Assessment, a summary of these facilities further afield as well as the local facilities are detailed in **Table 3.5** further in this section.

Existing Highway Conditions

3.10 To demonstrate that the traffic impact of the development can be accommodated satisfactorily on the adjacent road network traffic a description and functional classification of the highway network in the vicinity of the site will be provided and traffic flow information will be obtained. It is proposed that traffic surveys are undertaken at the following junctions on a mid-week day during a 'neutral month':

- On Murch Road (one week ATC);
- At the junction of Murch Road with Castle Drive (manual classified count and queue survey);
- At the junction of Murch Road with Sir Ivor Place (Plas Essyllt) (manual classified count and queue survey);
- At the signalised junction of Murch Road / Millbrook Road / A4055 Cardiff Road (manual classified count and queue survey).

3.11 These surveys would be undertaken during the AM Peak 07:30 – 09:30 and PM Peak 16:30 – 18:30 on a mid-week day during a 'neutral month'.

Personal Injury Accident History

3.12 The most recent 5 years of Personal Injury Accident (PIA) information for the highway network within the vicinity of the site will be obtained and analysed. It is proposed that the analysis will be undertaken for Murch Road / Murch Crescent including the junctions with:

- Castle Drive;
- Sir Ivor Place (Plas Essyllt); and
- A4055 Cardiff Road / Millbrook Road.

Future Year Assessment

Background Traffic Growth

3.13 It is proposed to assess a future year of 2020, five years after the likely date for submission of a planning application. It is proposed to applied background traffic growth to the surveyed traffic flows (and any information obtained from DfT traffic count sites) using the industry standard TEMPRO database (version 6.2). Localised NTM factors for Dinas Powys (00PD2) have been obtained based upon the NTM AF09 dataset, these are presented below:

- Morning Peak 1.0752;
- Evening Peak 1.0736; and
- Average Weekday 1.0738.

Committed Developments

3.14 It is proposed to consider the 0.35 hectare Medical Centre on the north western corner of the site and the proposed 3 hectare community centre proposed on the site as committed development. As a worst case, these would be applied as additional to the development trip generation and background traffic growth.

3.15 If Vale of Glamorgan Council requires other specific committed developments to be considered, it is requested that Vale of Glamorgan Council provide RPS with a list of these developments with their planning application numbers and/or traffic predicted traffic flows within Vale of Glamorgan Council's scoping response. If specific committed developments are requested by Vale of Glamorgan Council then the background traffic growth rates would be reduced correspondingly to avoid double-counting of traffic from sites considered specifically as committed developments, consistent with the Transport Analysis Guidance (TAG) unit 3.15.2 'Use of TEMPRO data'.

Development Trip Generation

3.16 Predicted trip generation rates for the site have been estimated using the industry standard TRICS database, version 7.2.1. In order to select sites of a similar nature to the proposed development, the following TRICS selection parameters have been used.

- Category: For Market Housing: Residential – Houses Privately Owned; For Affordable Housing: Residential – Mixed Private/Non-Private;
- N^{o}. Dwellings: 100 to 500 dwellings (Market), 14 to 280 (Affordable);
- Days of the week: Weekdays;
- Locations: Suburban area, edge of town;
- Travel Plan: No;
- Population < 5miles < 100,000;
- Population < 1 mile < 15,000;

- Region: Sites in Ireland and central London removed.

3.17 The resulting trip rates for market housing are provided in **Table 3.1** below. The resulting trip rates for affordable housing are provided in **Table 3.2**. The TRICS output is provided in **Appendix A**. The number of trips predicted for a 265 dwelling development with 35% affordable housing based upon these trip rates is provided in **Table 3.3**.

Table 3.1 – TRICS Trip Rates for Market Housing (weekday)

Time Period	Vehicles			Other Modes (Total Two way)		
	Arrivals	Depart.	Total Two Way	Peds.	Cyclists	Public Trans. Users
Morning Network Peak Hour 0800-0900	0.138	0.43	0.574	0.152	0.023	0.015
Evening Network Peak Hour 1700-1800	0.372	0.229	0.601	0.078	0.022	0.01
12 Hour 0700-1900	2.498	2.621	5.119	1.064	0.147	0.109

Source: TRICS version 7.2.1 (May 2015)

Table 3.2 – TRICS Trip Rates for Affordable Housing (weekday)

Time Period	Vehicles			Other Modes (Total Two way)		
	Arrivals	Depart.	Total Two Way	Peds.	Cyclists	Public Trans. Users
Morning Network Peak Hour 0800-0900	0.1	0.203	0.303	0.149	0.014	0.003
Evening Network Peak Hour 1700-1800	0.18	0.134	0.314	0.126	0.006	0
12 Hour 0700-1900	1.301	1.336	2.637	1.188	0.101	0.073

Source: TRICS version 7.2.1 (May 2015)

Table 3.3 – Predicted Trips for 265 Dwellings with 35% Affordable Housing based upon TRICS Trip Rates (weekday)

Time Period	Vehicles			Other Modes (Total Two way)		
	Arrivals	Depart.	Total Two Way	Peds.	Cyclists	Public Trans. Users
Morning Network Peak Hour 0800-0900	33	94	127	40	5	3
Evening Network Peak Hour 1700-1800	81	52	133	25	4	2
12 Hour 0700-1900	551	575	1126	293	35	26

Source: TRICS version 7.2.1 and Consultants Calculations (May 2015)

Trip Distribution and Assignment

3.18 National statistics, shown in **Table 3.4**, indicate the journey purposes of all journeys made. This can be used to give an indication of the likely journey purpose of trips generated by a new development.

Table 3.4: Proportion of Trips per Year by Journey Purpose

Journey Purpose	Proportion of Trips
Leisure	26%
Shopping	20%
Commuting	15%
Business	3%
Education / escort education	12%
Personal business	10%
Other escort	9%
Other including just walk	5%

Source: Table NTS0409 of Transport Statistics Great Britain (2012)

3.19 The National Statistics, **Table 3.4** demonstrated that 46% of journeys are for a Leisure or Shopping purpose and 18% of journeys are for a Commuting or Business purpose.

3.20 The results highlighted that of the journeys made by commuters 58% of travel was by vehicle and 70% of all business travel was by vehicle. As vehicular travel from the site is from the current main access on Murch Road, it is proposed that all traffic will be distributed from the development via this road, and then further afield using two methods, depending on journey purpose:

- For "commuter" and "business" purpose trips: traffic will be distributed based on the Census Journey to Work data for Dinas Powys Ward displayed in **Table 3.6**; and
- For other purposes: traffic distributed using a gravity model with a 30 minute travel time.

3.21 For the proposed site in Dinas Powys, the key destinations within each of the categories in **Table 3,4** are shown in **Table 3.5**. For journeys to employment, National Census Journey to Work statistics indicate that, for all modes of travel excluding 'works from home', the predominant destinations for journeys to work from Dinas Powys ward (00PD2) are indicated in **Table 3.7**.

Table 3.5 – Key Destinations in and around Dinas Powys

Journey Purpose	Key Destinations
Leisure	Murch Library Pubs and Restaurants at The Square
Shopping	Tesco's supermarket Budgens Store Spar store Castle Drive Plas Essyllt Cardiff City Centre Penarth Town Centre
Commuting/Business	Cardiff City Centre The Vale of Glamorgan

Journey Purpose	Key Destinations
	Bridgend Rhondda Cynon Taf Caerphilly Newport
Education/Escort Education	Murch School Murch Junior School Dinas Powys Infant School
Personal Business	Castle Drive Plas Essyllt The Square
Other Escort	University Hospital Llandough Saint Peter's Church St Michael & All Angels Church

Source: Google Maps and Site Visit Observations (May 2015)

Table 3.6: Dinas Powys Ward (00PD2) Journey to Work, Census 2011

Mode of Travel	Number	Percentage
Underground, Metro, Light Rail, Tram	6	0%
Train	318	9%
Bus, Minibus or Coach	76	2%
Taxi	10	0%
Motorcycle, Scooter or Moped	26	1%
Driving a Car or Van	2511	74%
Passenger in a Car or Van	187	5%
Bicycle	62	2%
On Foot	189	6%

Source: Dinas Powys Ward – Journey to Work Data – Census 2011

Table 3.7: Most Common Destinations for Journeys to Work – Dinas Powys

Destination	Proportion of Journey to Work Trips
Bridgend	2.0%
The Vale of Glamorgan	35.7%
Cardiff	49.8%
Rhondda Cynon Taf	2.9%
Caerphilly	1.0%
Newport	2.1%
Other	6.5%

Source: Dinas Powys Ward – Journey to Work Data – Census 2011 and Nomis Statistics (May 2015)

Travel Plan

3.22 The Vale of Glamorgan Local Development Plan requires a Travel Plan to be provided for developments within the Deposit Development Local Plan Allocation Area.

3.23 It is proposed that a Framework Travel Plan is prepared at this Outline Planning Application stage, to set out the parameters for a subsequent Full Travel Plan. The FTP would encourage sustainable trip making and reduction in car-borne trips from the development in line with both central and local government objectives.

3.24 The Outline Travel Plan for the site would include the following sections:

- Introduction;
- Background to the development;
- Transport Data;
- A commitment to conduct a baseline travel survey;
- Objectives of the Travel Plan;
- Targets – SMART;
- Measures – to explain how the targets will be achieved;
- Management of the Travel Plan; and
- Monitoring and Review.

4 SUMMARY

4.1 This Scoping Report is submitted to Vale of Glamorgan Council in relation to a proposed residential development of a total of circa 265 dwellings located on Murch Road, Dinas Powys, of which circa 35% is anticipated be affordable dwellings.

4.2 It is proposed that the forthcoming planning application for residential development is accompanied by a Transport Assessment and Framework Travel Plan prepared according to the scope set-out herein, in accordance with Planning Policy Wales: Chapter 8 Transport and Planning Policy Wales Technical Advice Note (TAN) 18. These documents advise that scoping advice should be sought from the local highway authority before preparing an assessment.

4.3 This document seeks to agree the following parameters for the assessment:

i. that a Transport Assessment (TA) and Framework residential Travel Plan (FTP) will be prepared to accompany the planning applications;

ii. that a Transport Implementation Strategy will be prepared to accompany the TA and FTP in accordance with policy;

iii. the TA will review the accessibility of the site and access by sustainable modes of travel providing a more detailed version of **Section 2** within this Scoping Report.

iv. the junctions which will be surveyed for traffic flows and subsequently modelled are those set out in paragraphs **3.7** to **3.8**; five years' PIA data will be obtained and analysed for the roads set out in paragraph **3.9**;

v. without consideration of committed developments, the background traffic growth rates are those set out in paragraph **3.10**. If Vale of Glamorgan Council requires other specific committed developments to be considered then Vale of Glamorgan Council will provide RPS with a list of these developments with their planning application numbers and/or traffic predicted traffic flows within Vale of Glamorgan Council's scoping response. If specific committed developments are requested by Vale of Glamorgan Council then the background traffic growth rates would be reduced correspondingly to avoid double-counting of traffic from sites considered specifically as committed developments, consistent with the Transport Analysis Guidance (TAG) unit 3.15.2 'Use of TEMPRO data';

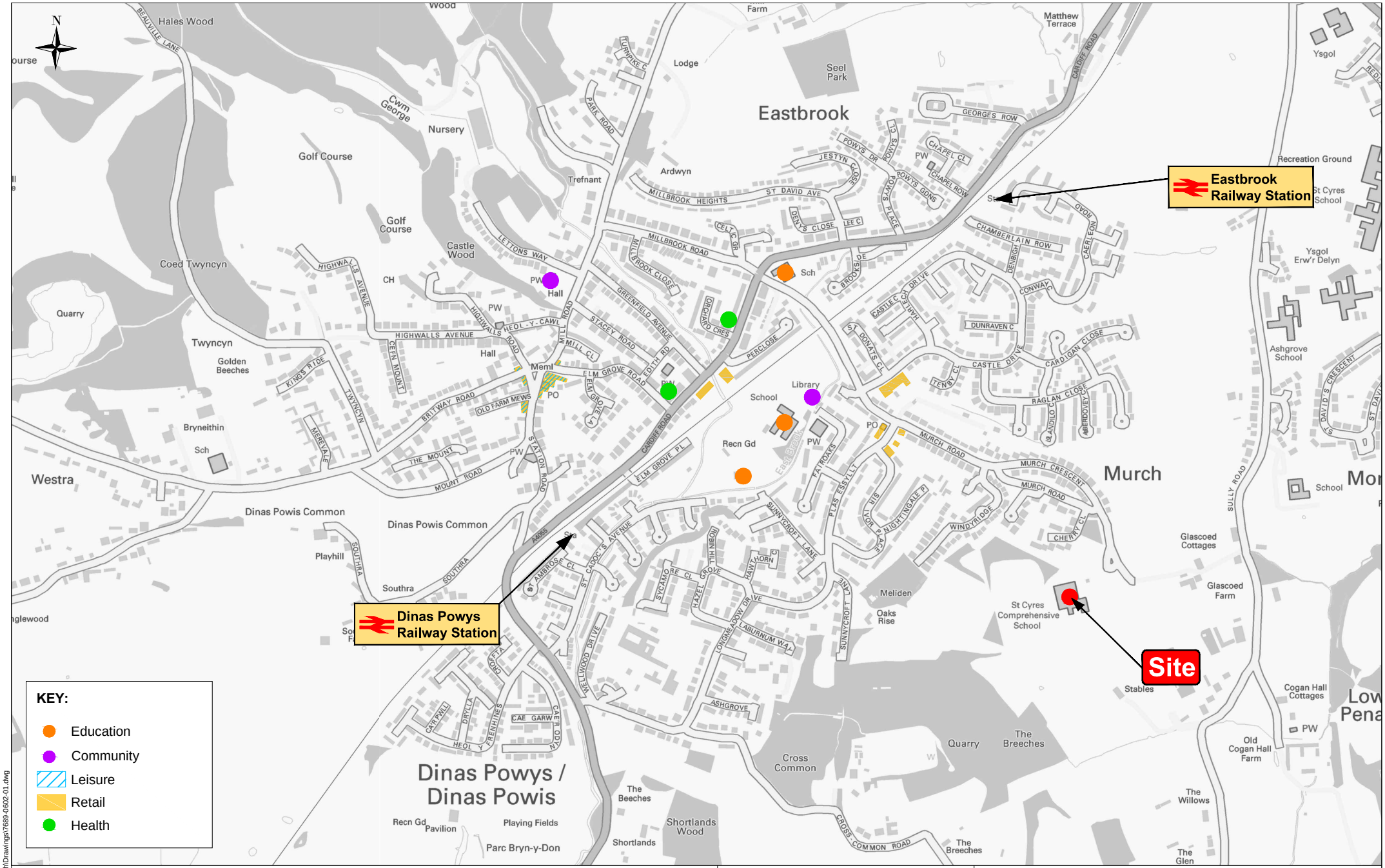
vi. the proposed trip generation to be used is to be based upon TRICS trip rates as set out within paragraphs **3.15** to **3.18** and Tables **3.1** to **3.2** and **3.3**; and

vii. the trip distribution and assignment methodology is set out in paragraphs **3.15** to **3.18** and **Tables 3.5** to **3.6** and **3.7**.

4.4 It is clear from analysis of census journey to work data that there is considerable opportunity to encourage modal shift away from private car and onto sustainable modes. The site is well served by footways and nearby bus stops for access by sustainable modes of travel. There is a clear opportunity to encourage walking and cycling for a wide range of journey purposes. The planning application will be accompanied by a Residential Travel Plan.

FIGURES

Figure 1 - Site Location and Local Facilities Plan



RPS

Project: ST CYRES LOWER SCHOOL

Title: LOCAL FACILITIES PLAN

Date: MAY 2015 | Scale: 1:10,000 | Rev: .

Drwg. No: JNY8501 | Drawn: AVG | Checked: AN

Figure No: 1

Transport

O:\7689 Newbury Tech Support\Tech\Drawings\7689-0602-01.dwg

APPENDICES

APPENDIX A - TRICS OUTPUT

Calculation Reference: AUDIT-515501-150427-0459

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : B - AFFORDABLE/LOCAL AUTHORITY HOUSES
MULTI-MODAL VEHICLES

Selected regions and areas:

07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NY	NORTH YORKSHIRE	1 days
	WY	WEST YORKSHIRE	1 days
08	NORTH WEST		
	MS	MERSEYSIDE	1 days

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

Filtering Stage 2 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: Number of dwellings
Actual Range: 16 to 280 (units:)
Range Selected by User: 14 to 280 (units:)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/07 to 19/09/13

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	2 days
Thursday	1 days

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

Selected survey types:

Manual count	3 days
Directional ATC Count	0 days

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

Selected Locations:

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

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

Selected Location Sub Categories:

Residential Zone	2
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.

Filtering Stage 3 selection:

Use Class:

C3	3 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:

1,001 to 5,000	1 days
10,001 to 15,000	2 days

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

Population within 5 miles:

5,001 to 25,000	2 days
75,001 to 100,000	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	1 days

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

Travel Plan:

No	3 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.

LIST OF SITES relevant to selection parameters

1	MS-03-B-01	TERRACED		MERSEYSIDE
	TARBOCK ROAD			
	SPEKE			
	LIVERPOOL			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:		16	
	Survey date: TUESDAY		18/06/13	Survey Type: MANUAL
2	NY-03-B-01	TERRACED HOUSING		NORTH YORKSHIRE
	NORTHALLERTON ROAD			
	NORBY			
	THIRSK			
	Suburban Area (PPS6 Out of Centre)			
	No Sub Category			
	Total Number of dwellings:		280	
	Survey date: THURSDAY		20/09/07	Survey Type: MANUAL
3	WY-03-B-02	MIXED HOUSES		WEST YORKSHIRE
	WHITEACRE STREET			
	DEIGHTON			
	HUDDERSFIELD			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:		54	
	Survey date: TUESDAY		17/09/13	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 03 - RESIDENTIAL/B - AFFORDABLE/LOCAL AUTHORITY HOUSES
MULTI-MODAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	3	117	0.037	3	117	0.129	3	117	0.166
08:00 - 09:00	3	117	0.100	3	117	0.203	3	117	0.303
09:00 - 10:00	3	117	0.103	3	117	0.097	3	117	0.200
10:00 - 11:00	3	117	0.109	3	117	0.111	3	117	0.220
11:00 - 12:00	3	117	0.129	3	117	0.103	3	117	0.232
12:00 - 13:00	3	117	0.089	3	117	0.111	3	117	0.200
13:00 - 14:00	3	117	0.111	3	117	0.074	3	117	0.185
14:00 - 15:00	3	117	0.086	3	117	0.123	3	117	0.209
15:00 - 16:00	3	117	0.123	3	117	0.074	3	117	0.197
16:00 - 17:00	3	117	0.120	3	117	0.114	3	117	0.234
17:00 - 18:00	3	117	0.180	3	117	0.134	3	117	0.314
18:00 - 19:00	3	117	0.114	3	117	0.063	3	117	0.177
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.301			1.336			2.637

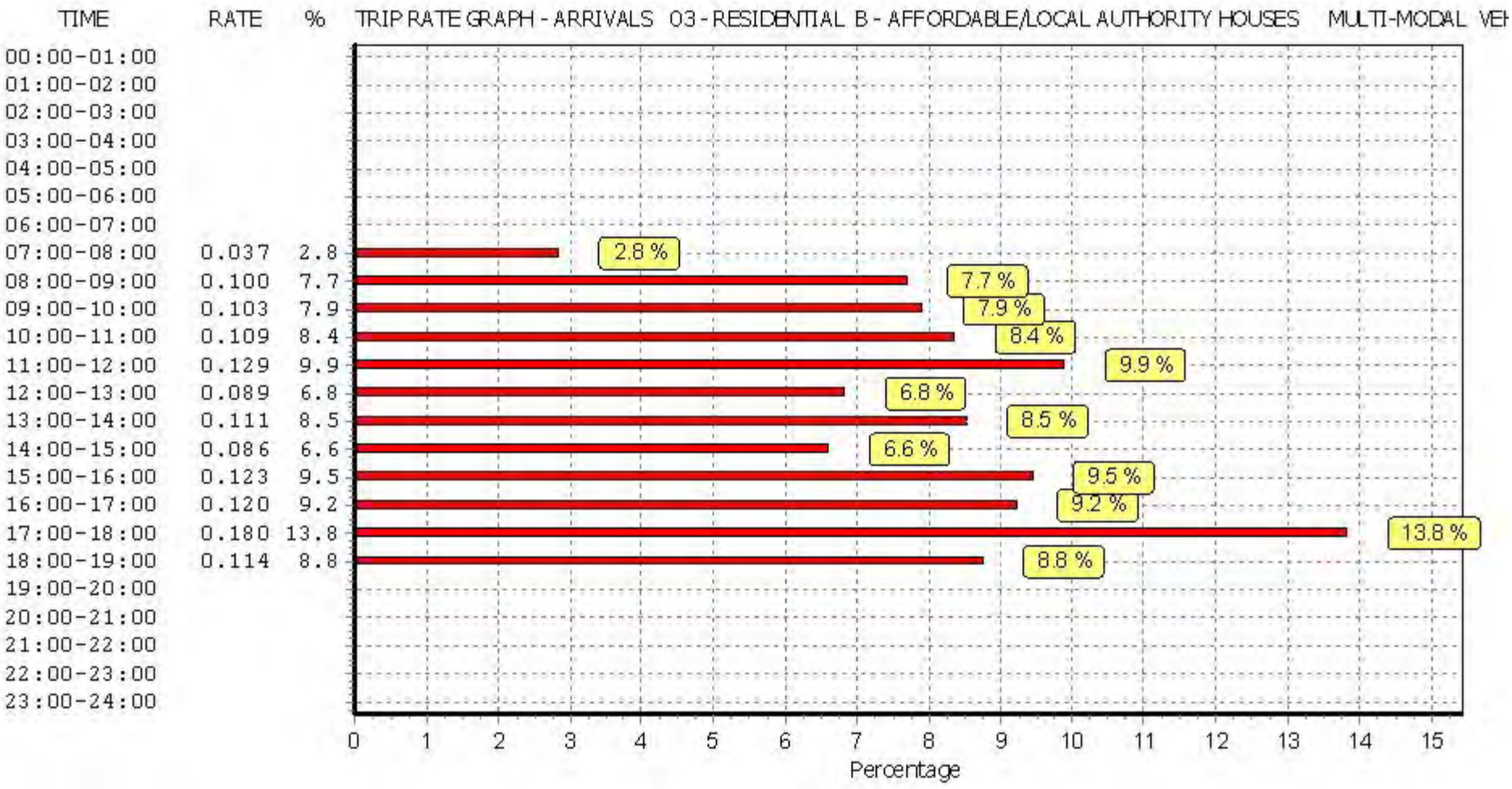
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are 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.

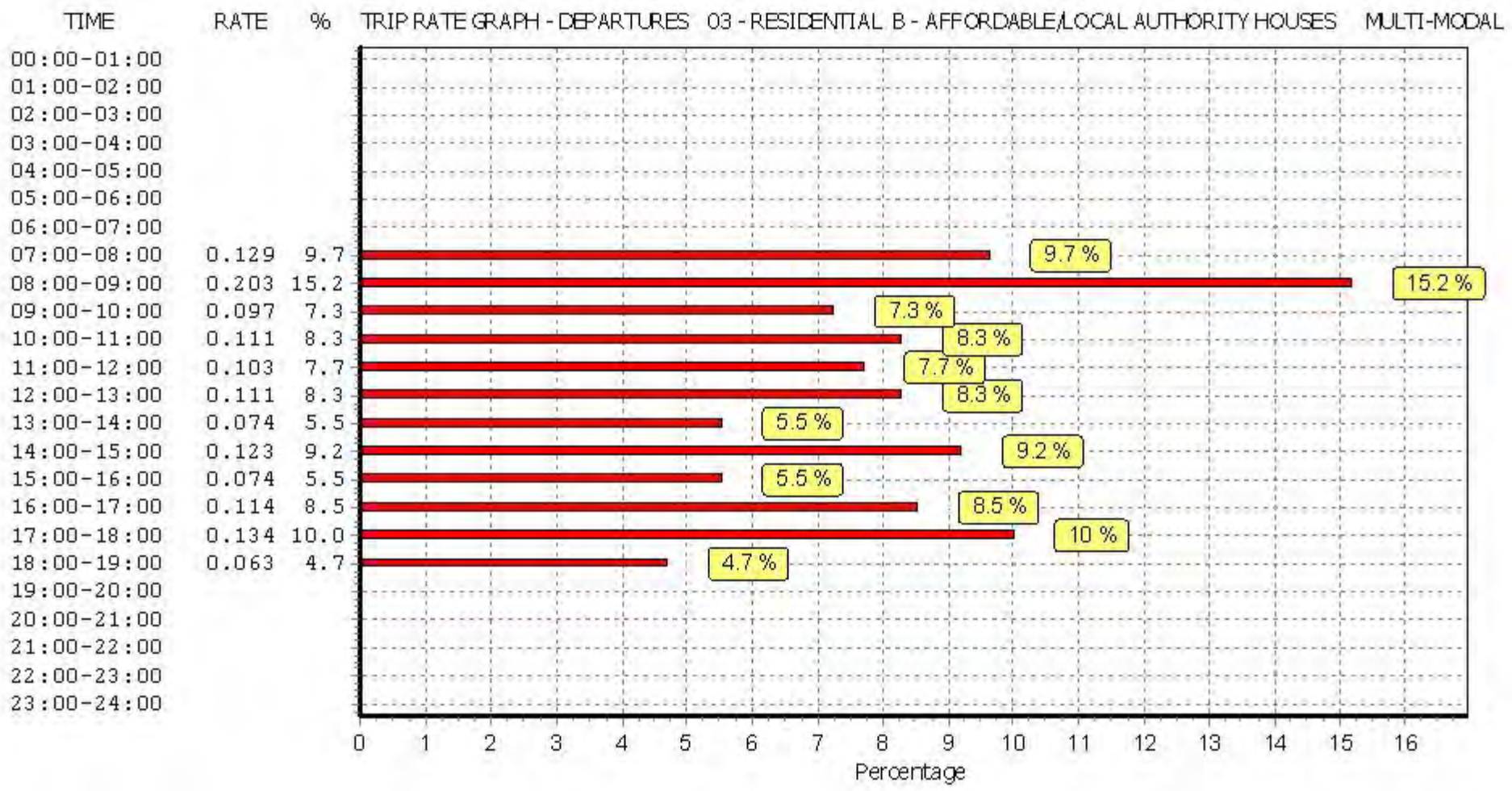
Parameter summary

Trip rate parameter range selected:	16 - 280 (units:)
Survey date date range:	01/01/07 - 19/09/13
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

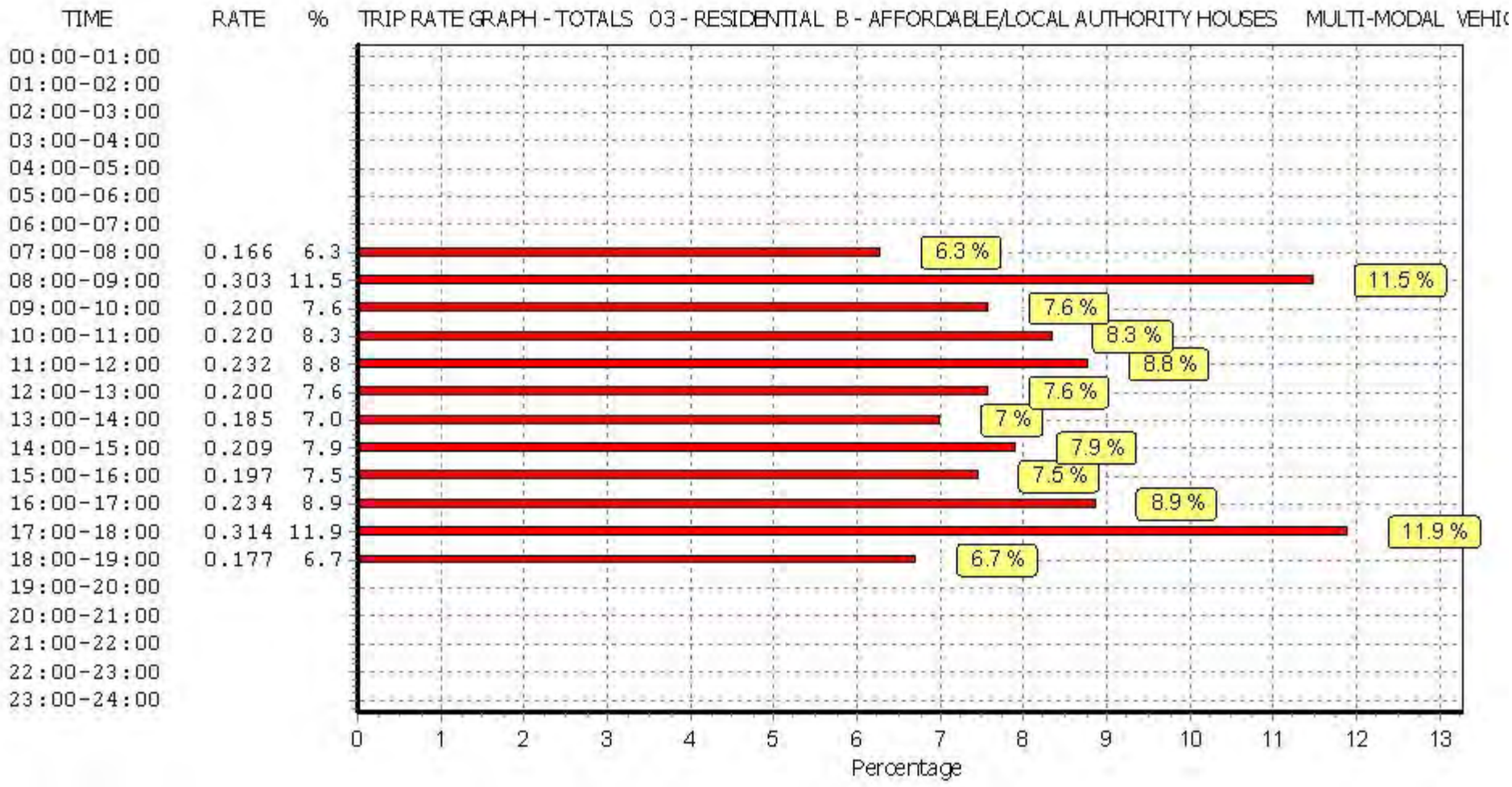
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



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 03 - RESIDENTIAL/B - AFFORDABLE/LOCAL AUTHORITY HOUSES
MULTI-MODAL TAXIS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	3	117	0.006	3	117	0.006	3	117	0.012
08:00 - 09:00	3	117	0.003	3	117	0.006	3	117	0.009
09:00 - 10:00	3	117	0.011	3	117	0.011	3	117	0.022
10:00 - 11:00	3	117	0.011	3	117	0.020	3	117	0.031
11:00 - 12:00	3	117	0.020	3	117	0.020	3	117	0.040
12:00 - 13:00	3	117	0.014	3	117	0.011	3	117	0.025
13:00 - 14:00	3	117	0.000	3	117	0.006	3	117	0.006
14:00 - 15:00	3	117	0.023	3	117	0.011	3	117	0.034
15:00 - 16:00	3	117	0.011	3	117	0.011	3	117	0.022
16:00 - 17:00	3	117	0.017	3	117	0.011	3	117	0.028
17:00 - 18:00	3	117	0.009	3	117	0.011	3	117	0.020
18:00 - 19:00	3	117	0.009	3	117	0.009	3	117	0.018
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.134			0.133			0.267

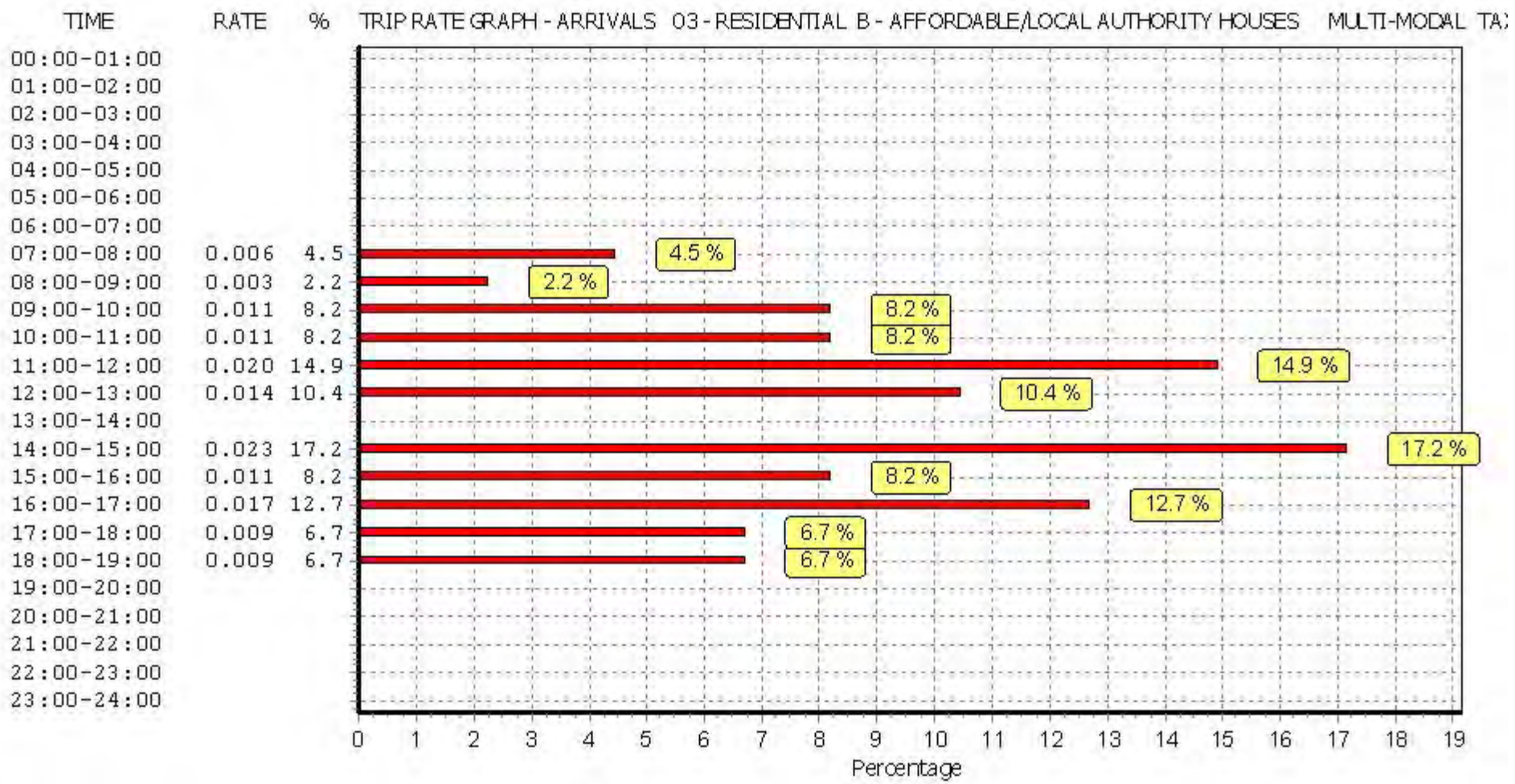
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are 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.

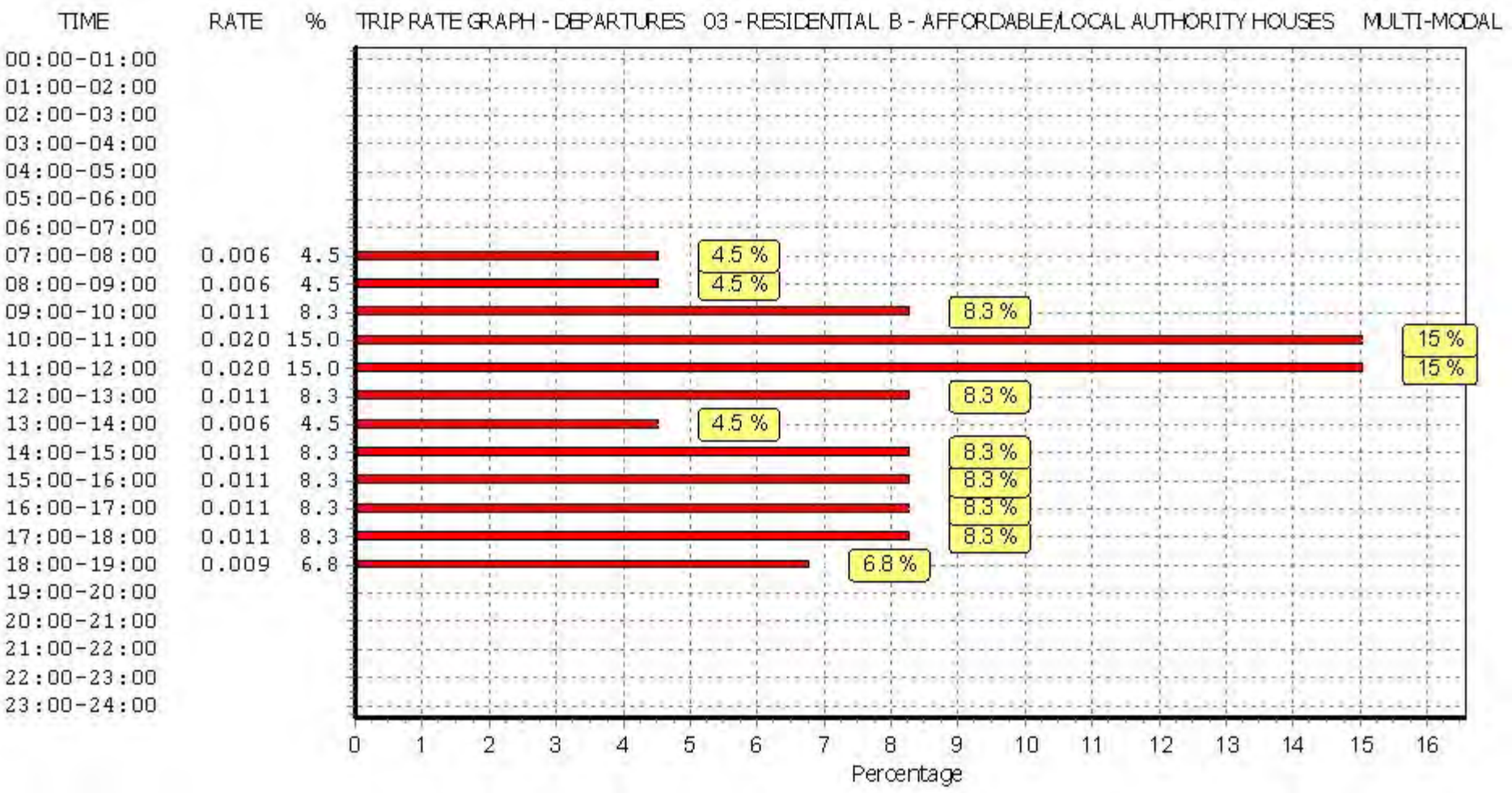
Parameter summary

Trip rate parameter range selected:	16 - 280 (units:)
Survey date date range:	01/01/07 - 19/09/13
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

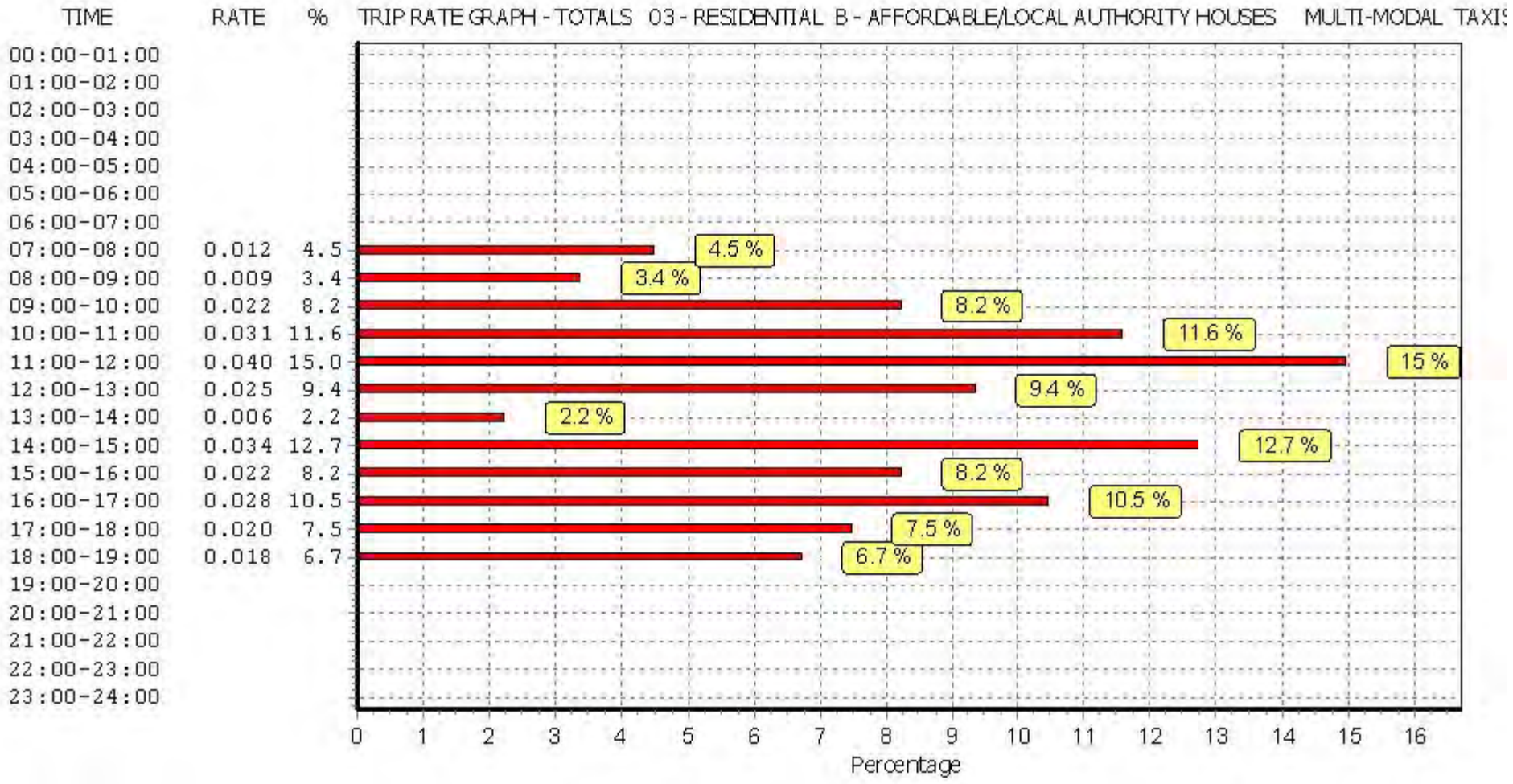
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



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 03 - RESIDENTIAL/B - AFFORDABLE/LOCAL AUTHORITY HOUSES
MULTI-MODAL OGVS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	3	117	0.000	3	117	0.000	3	117	0.000
08:00 - 09:00	3	117	0.003	3	117	0.000	3	117	0.003
09:00 - 10:00	3	117	0.006	3	117	0.000	3	117	0.006
10:00 - 11:00	3	117	0.000	3	117	0.009	3	117	0.009
11:00 - 12:00	3	117	0.000	3	117	0.000	3	117	0.000
12:00 - 13:00	3	117	0.000	3	117	0.000	3	117	0.000
13:00 - 14:00	3	117	0.000	3	117	0.000	3	117	0.000
14:00 - 15:00	3	117	0.000	3	117	0.000	3	117	0.000
15:00 - 16:00	3	117	0.000	3	117	0.000	3	117	0.000
16:00 - 17:00	3	117	0.000	3	117	0.000	3	117	0.000
17:00 - 18:00	3	117	0.000	3	117	0.000	3	117	0.000
18:00 - 19:00	3	117	0.000	3	117	0.000	3	117	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.009			0.009			0.018

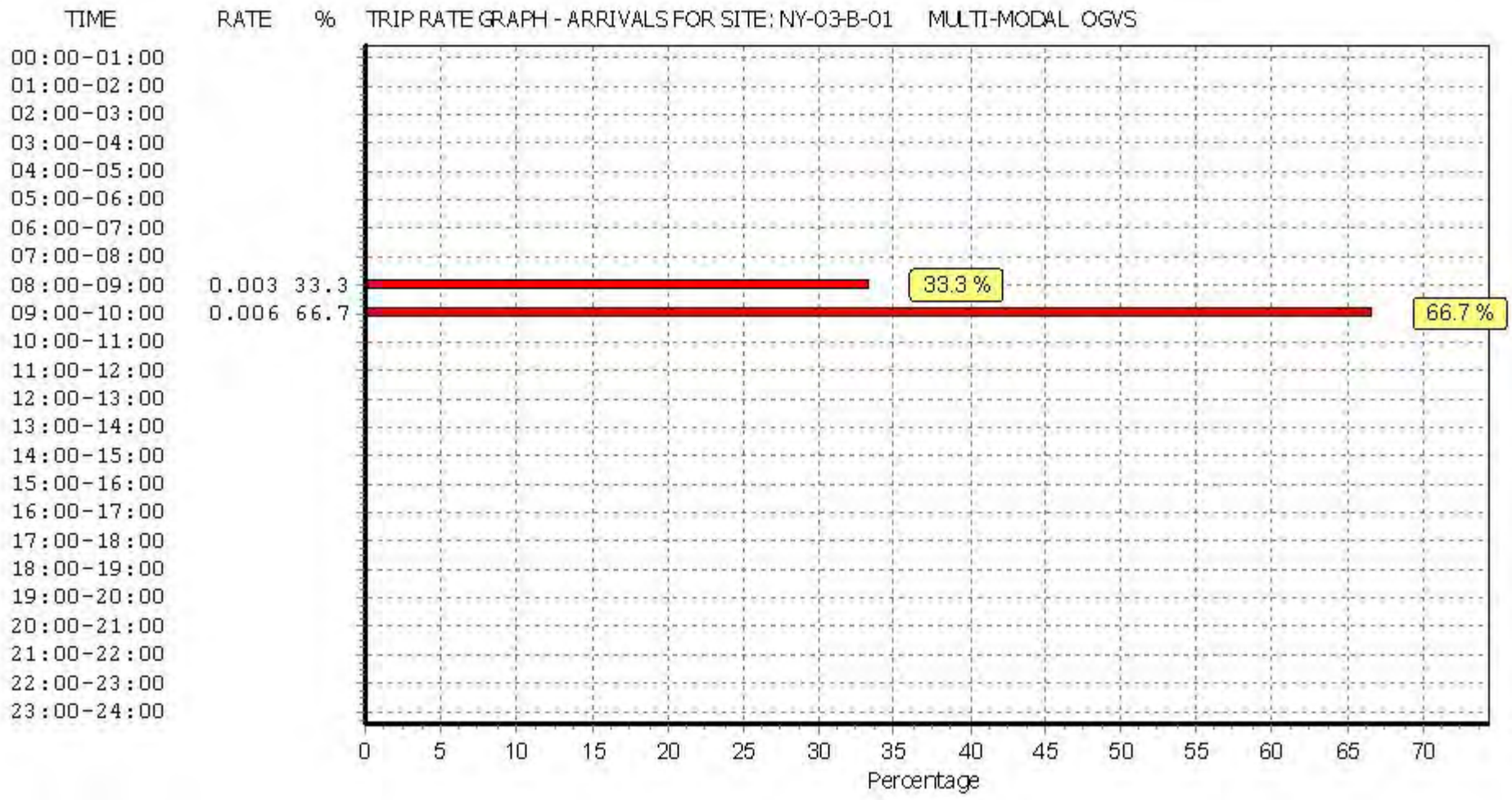
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are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

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

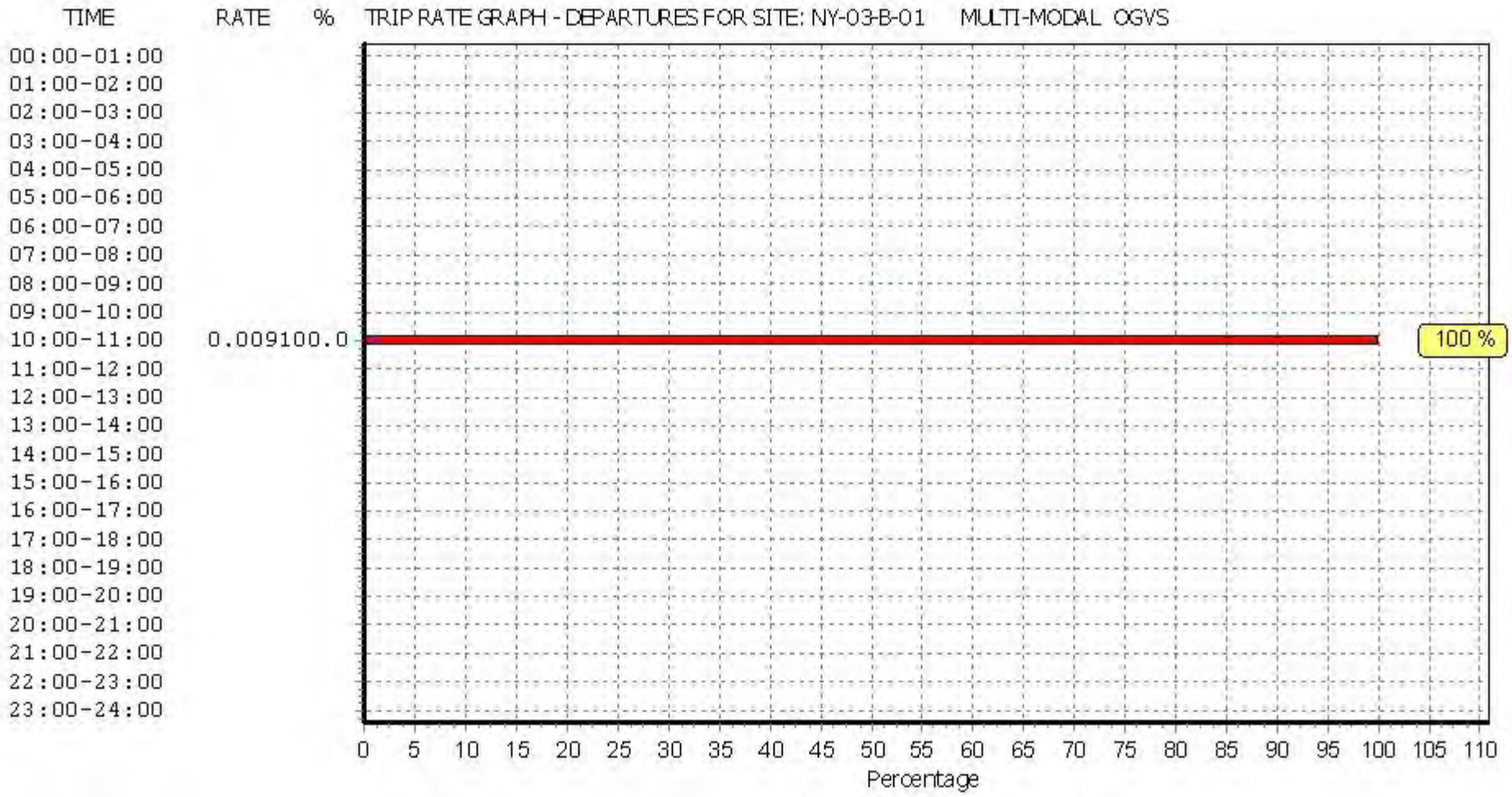
Parameter summary

Trip rate parameter range selected:	16 - 280 (units:)
Survey date date range:	01/01/07 - 19/09/13
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

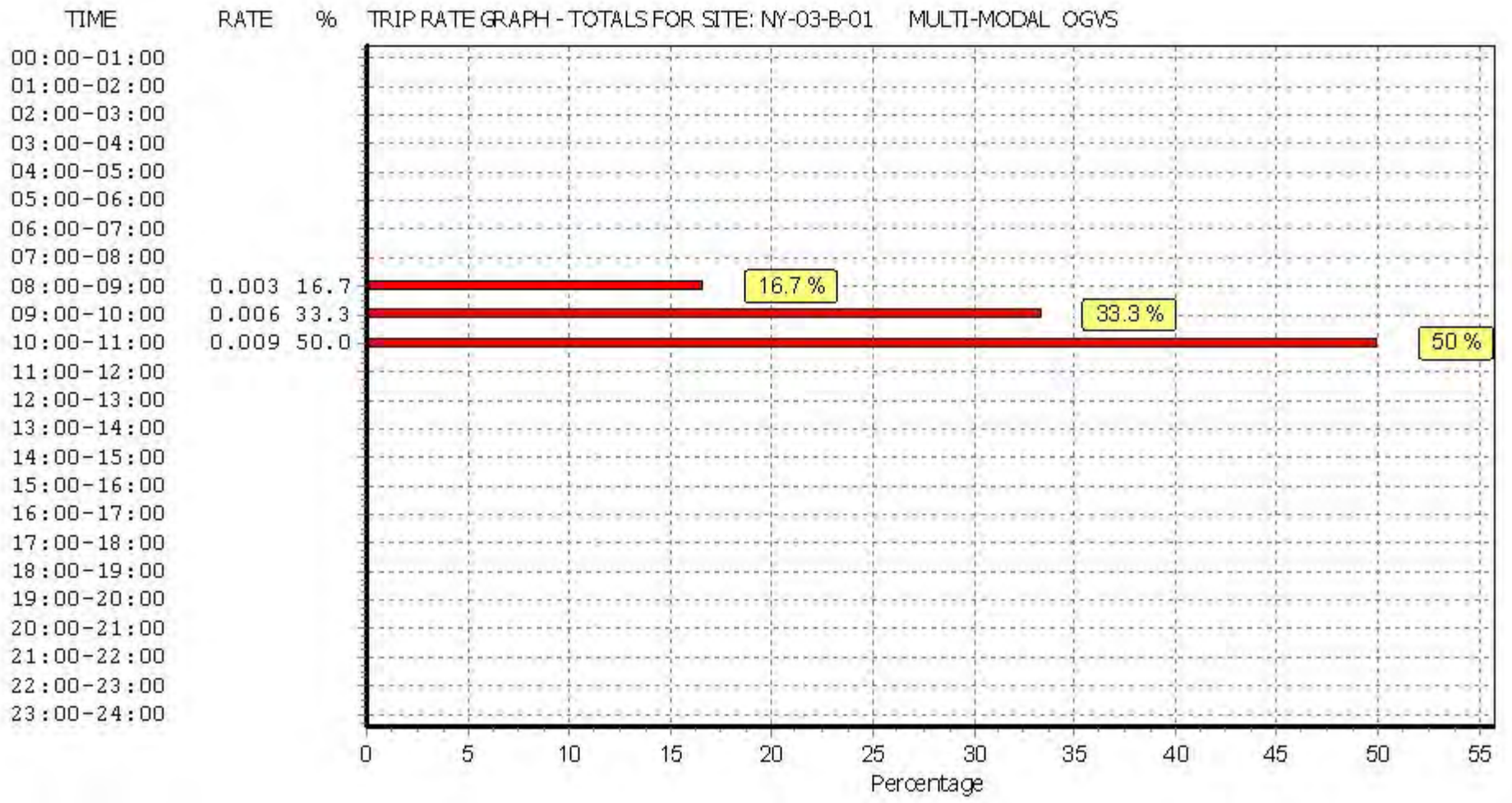
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



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 03 - RESIDENTIAL/B - AFFORDABLE/LOCAL AUTHORITY HOUSES
MULTI-MODAL PSVS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	3	117	0.000	3	117	0.000	3	117	0.000
08:00 - 09:00	3	117	0.000	3	117	0.000	3	117	0.000
09:00 - 10:00	3	117	0.003	3	117	0.003	3	117	0.006
10:00 - 11:00	3	117	0.000	3	117	0.000	3	117	0.000
11:00 - 12:00	3	117	0.003	3	117	0.003	3	117	0.006
12:00 - 13:00	3	117	0.000	3	117	0.000	3	117	0.000
13:00 - 14:00	3	117	0.003	3	117	0.003	3	117	0.006
14:00 - 15:00	3	117	0.000	3	117	0.000	3	117	0.000
15:00 - 16:00	3	117	0.000	3	117	0.000	3	117	0.000
16:00 - 17:00	3	117	0.000	3	117	0.000	3	117	0.000
17:00 - 18:00	3	117	0.000	3	117	0.000	3	117	0.000
18:00 - 19:00	3	117	0.000	3	117	0.000	3	117	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.009			0.009			0.018

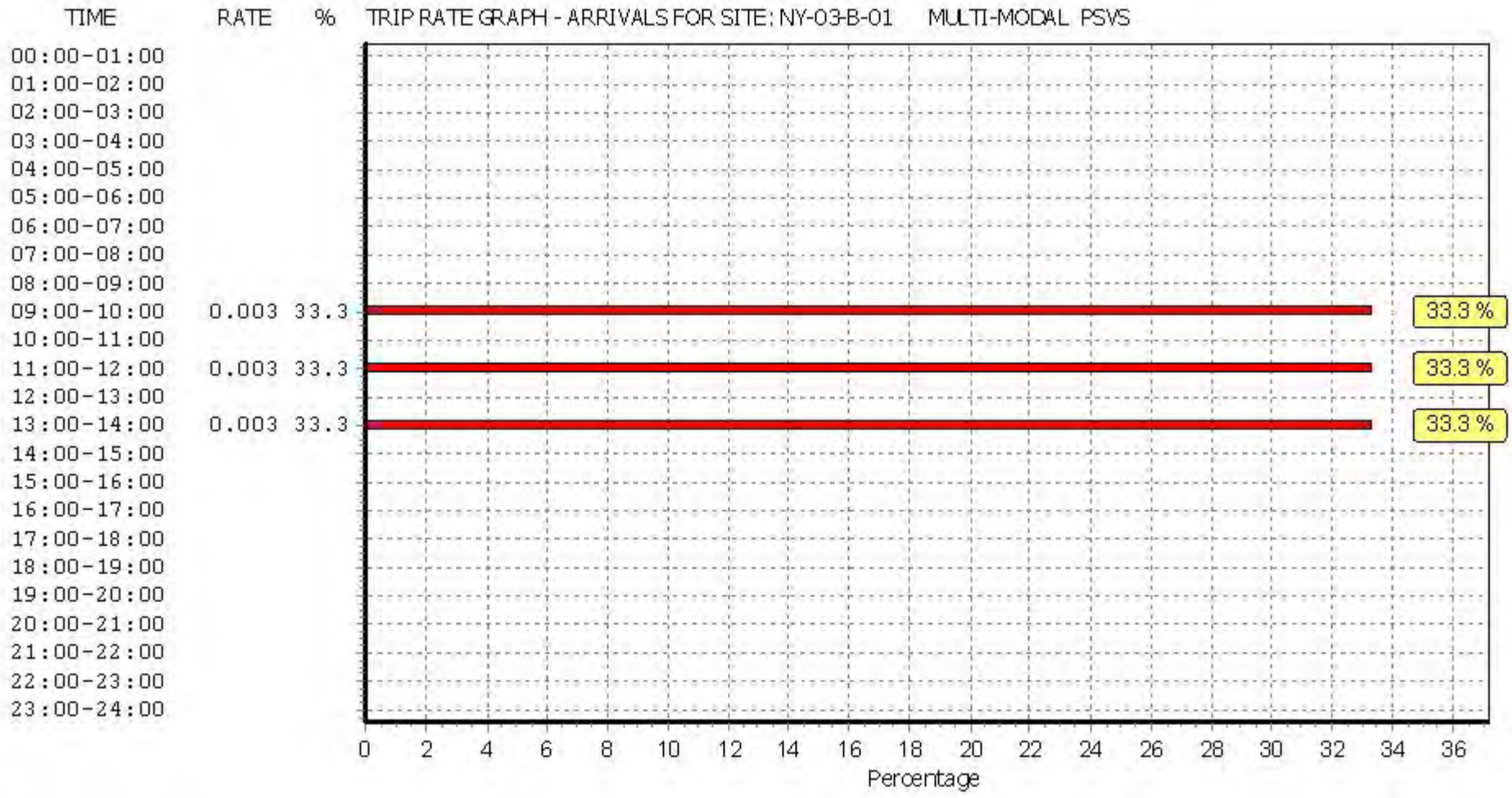
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are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

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

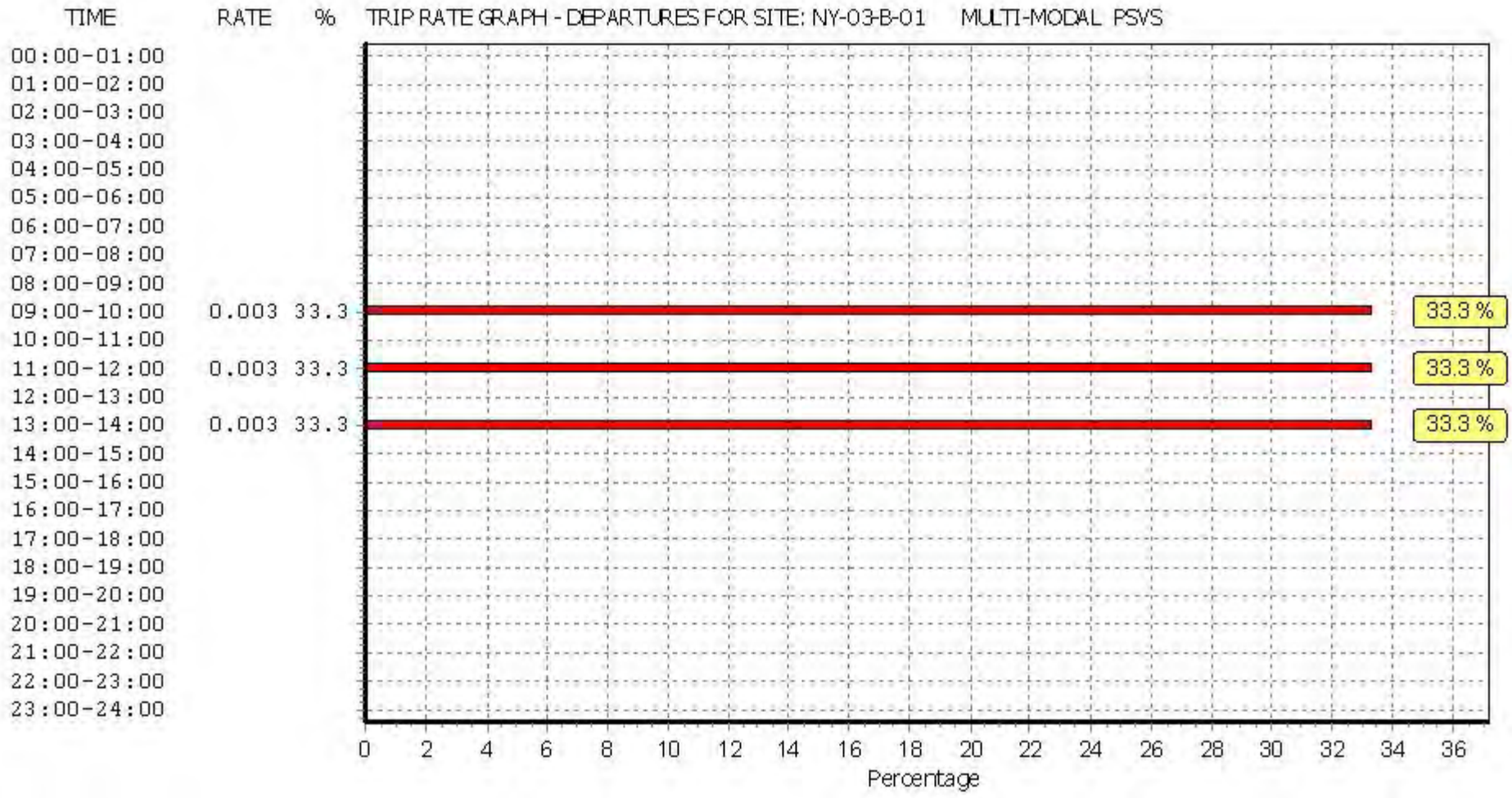
Parameter summary

Trip rate parameter range selected:	16 - 280 (units:)
Survey date date range:	01/01/07 - 19/09/13
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

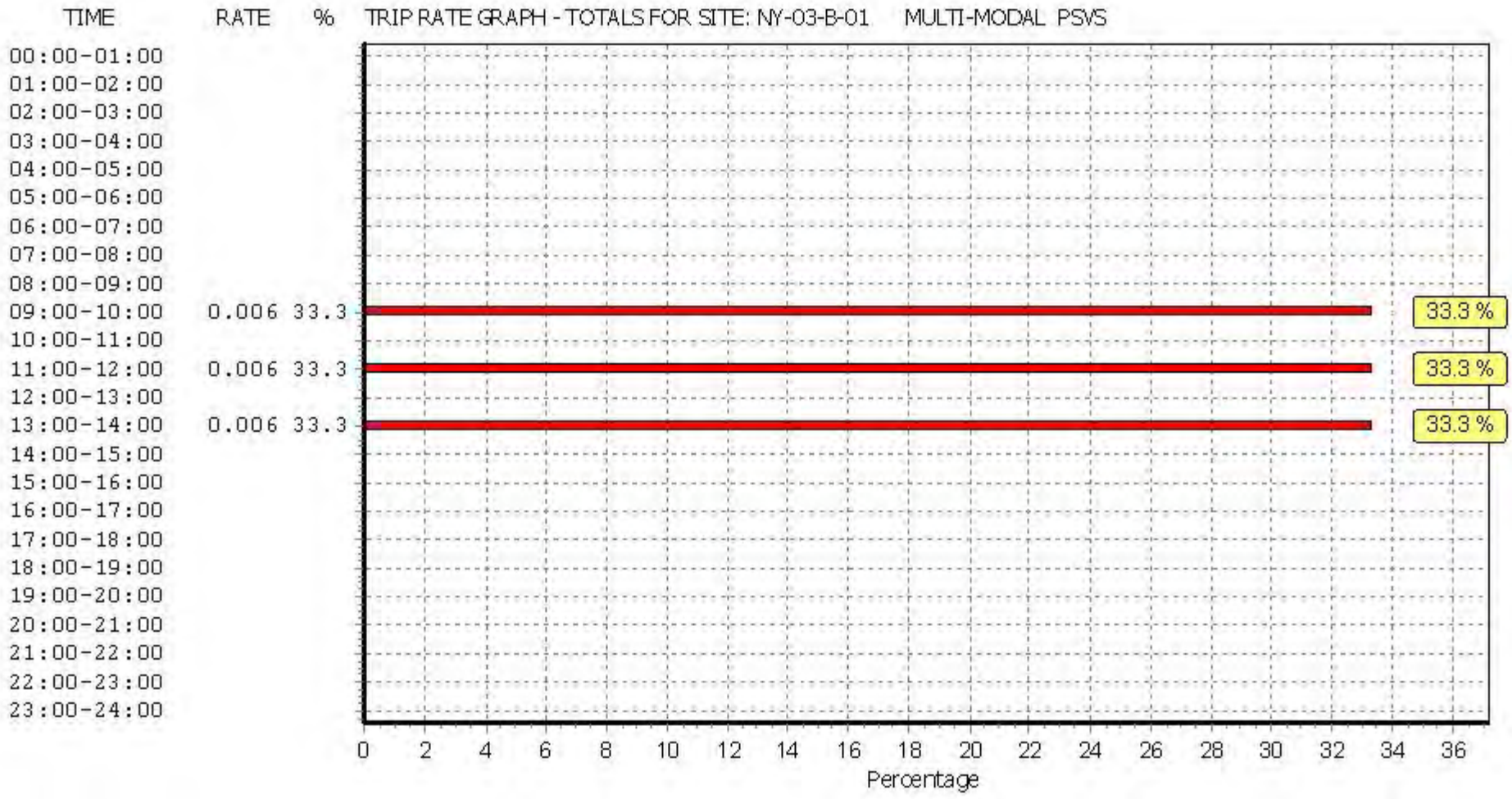
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



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 03 - RESIDENTIAL/B - AFFORDABLE/LOCAL AUTHORITY HOUSES
MULTI-MODAL CYCLISTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	3	117	0.003	3	117	0.000	3	117	0.003
08:00 - 09:00	3	117	0.003	3	117	0.011	3	117	0.014
09:00 - 10:00	3	117	0.003	3	117	0.009	3	117	0.012
10:00 - 11:00	3	117	0.000	3	117	0.000	3	117	0.000
11:00 - 12:00	3	117	0.003	3	117	0.003	3	117	0.006
12:00 - 13:00	3	117	0.009	3	117	0.003	3	117	0.012
13:00 - 14:00	3	117	0.003	3	117	0.003	3	117	0.006
14:00 - 15:00	3	117	0.000	3	117	0.003	3	117	0.003
15:00 - 16:00	3	117	0.011	3	117	0.000	3	117	0.011
16:00 - 17:00	3	117	0.003	3	117	0.003	3	117	0.006
17:00 - 18:00	3	117	0.003	3	117	0.003	3	117	0.006
18:00 - 19:00	3	117	0.011	3	117	0.011	3	117	0.022
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.052			0.049			0.101

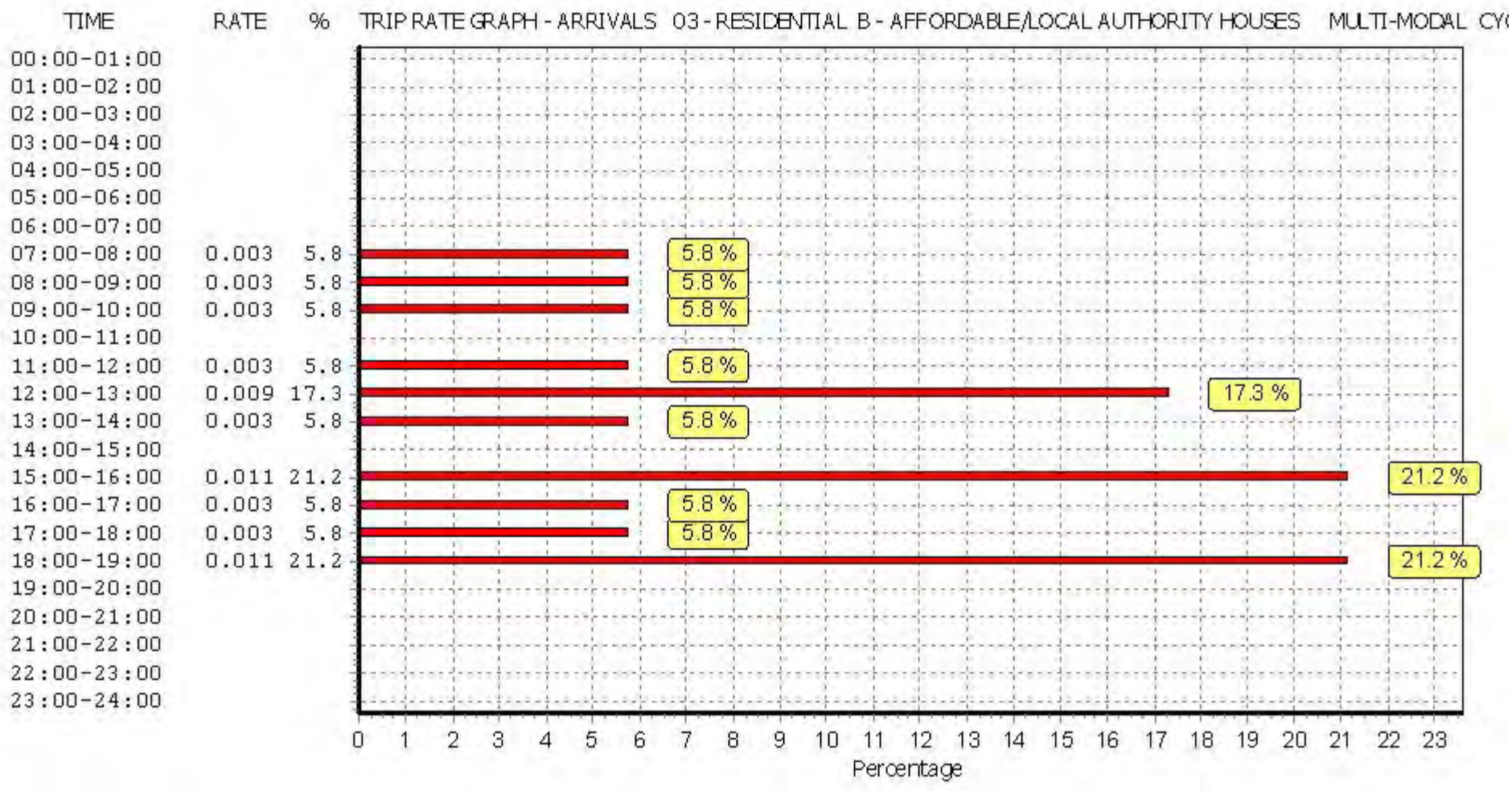
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are 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.

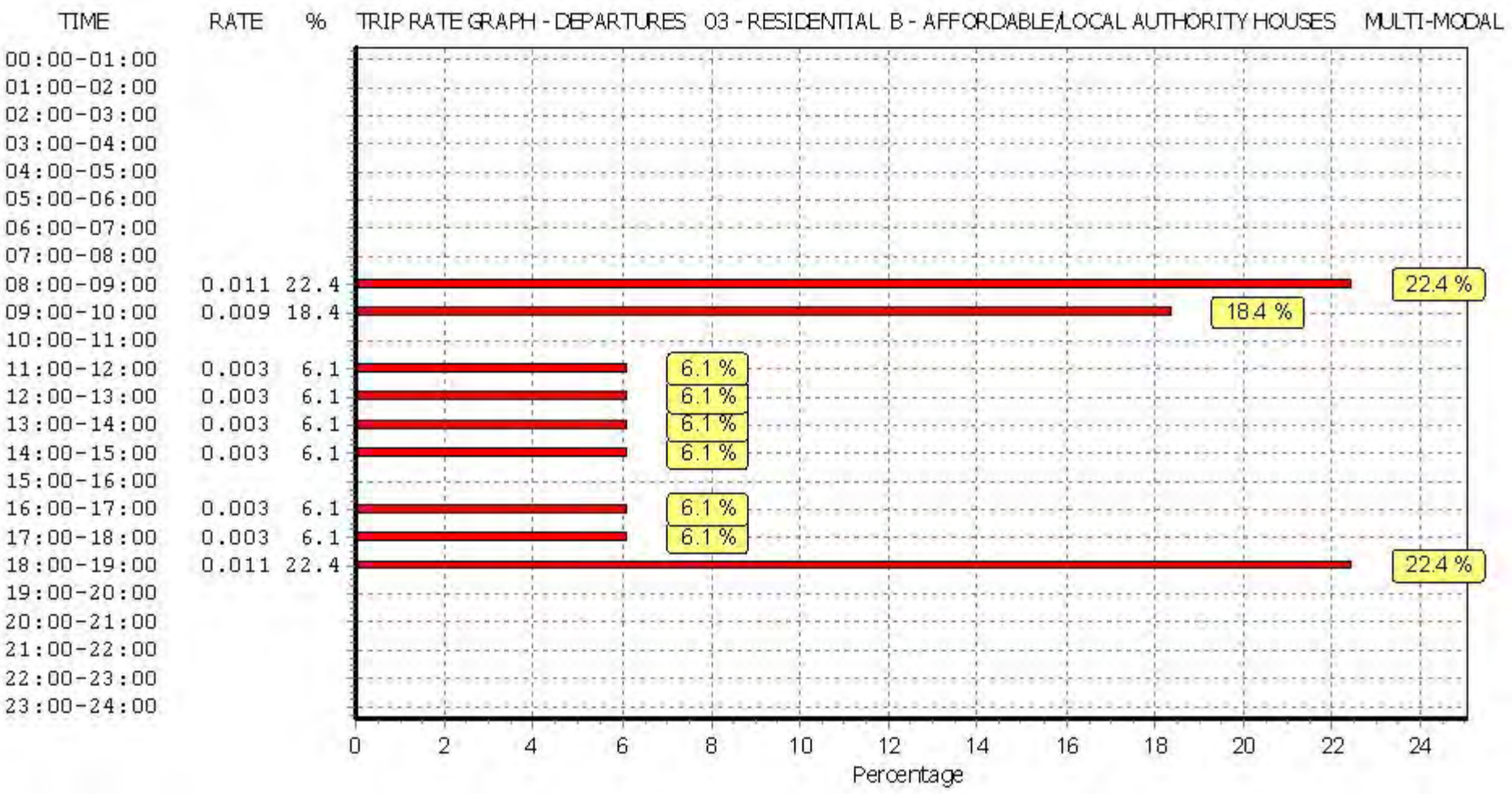
Parameter summary

Trip rate parameter range selected:	16 - 280 (units:)
Survey date date range:	01/01/07 - 19/09/13
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

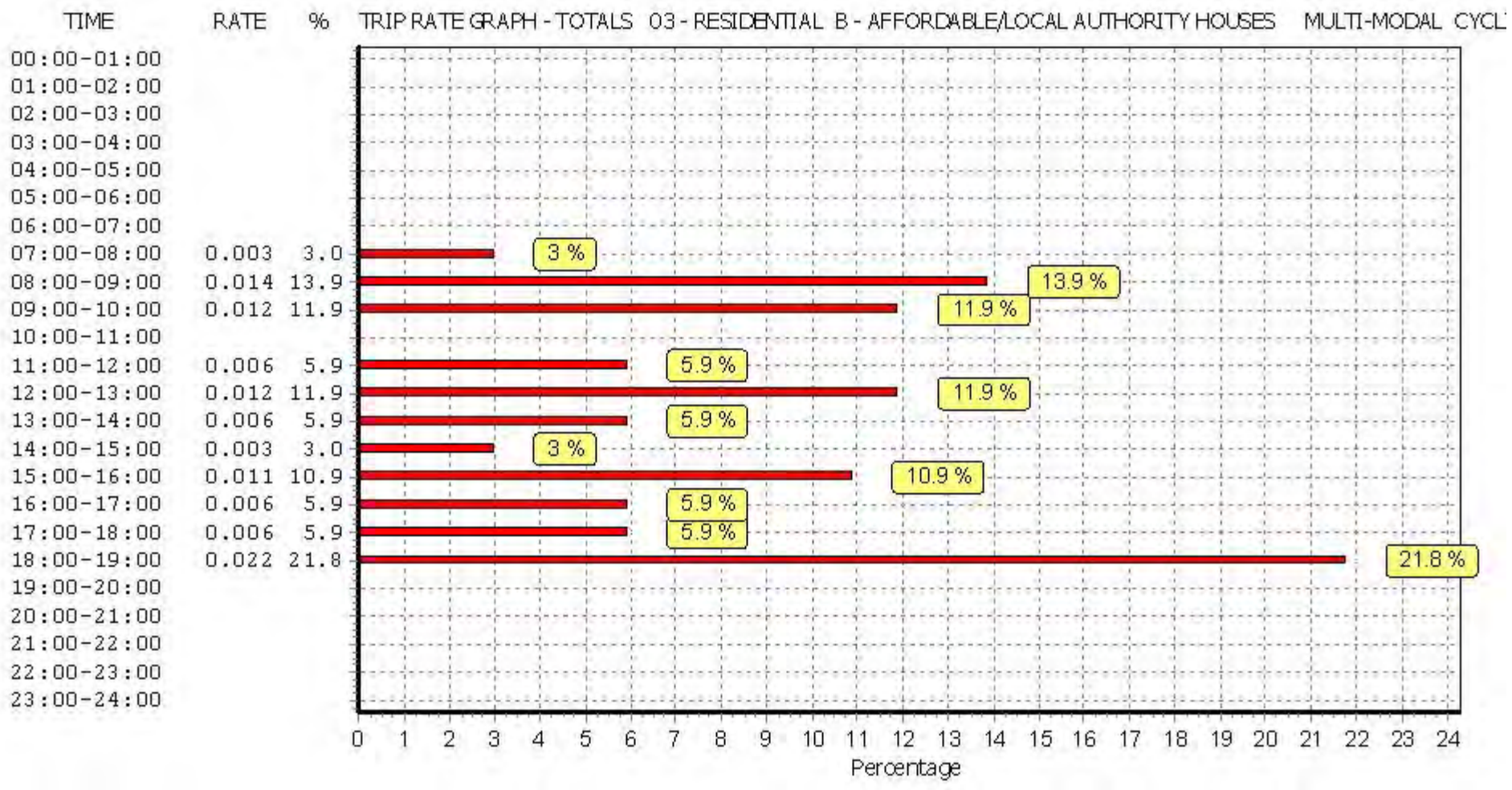
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



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 03 - RESIDENTIAL/B - AFFORDABLE/LOCAL AUTHORITY HOUSES
MULTI-MODAL VEHICLE OCCUPANTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	3	117	0.037	3	117	0.191	3	117	0.228
08:00 - 09:00	3	117	0.146	3	117	0.371	3	117	0.517
09:00 - 10:00	3	117	0.131	3	117	0.134	3	117	0.265
10:00 - 11:00	3	117	0.149	3	117	0.169	3	117	0.318
11:00 - 12:00	3	117	0.160	3	117	0.126	3	117	0.286
12:00 - 13:00	3	117	0.114	3	117	0.143	3	117	0.257
13:00 - 14:00	3	117	0.143	3	117	0.083	3	117	0.226
14:00 - 15:00	3	117	0.117	3	117	0.154	3	117	0.271
15:00 - 16:00	3	117	0.191	3	117	0.111	3	117	0.302
16:00 - 17:00	3	117	0.191	3	117	0.183	3	117	0.374
17:00 - 18:00	3	117	0.246	3	117	0.220	3	117	0.466
18:00 - 19:00	3	117	0.183	3	117	0.077	3	117	0.260
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.808			1.962			3.770

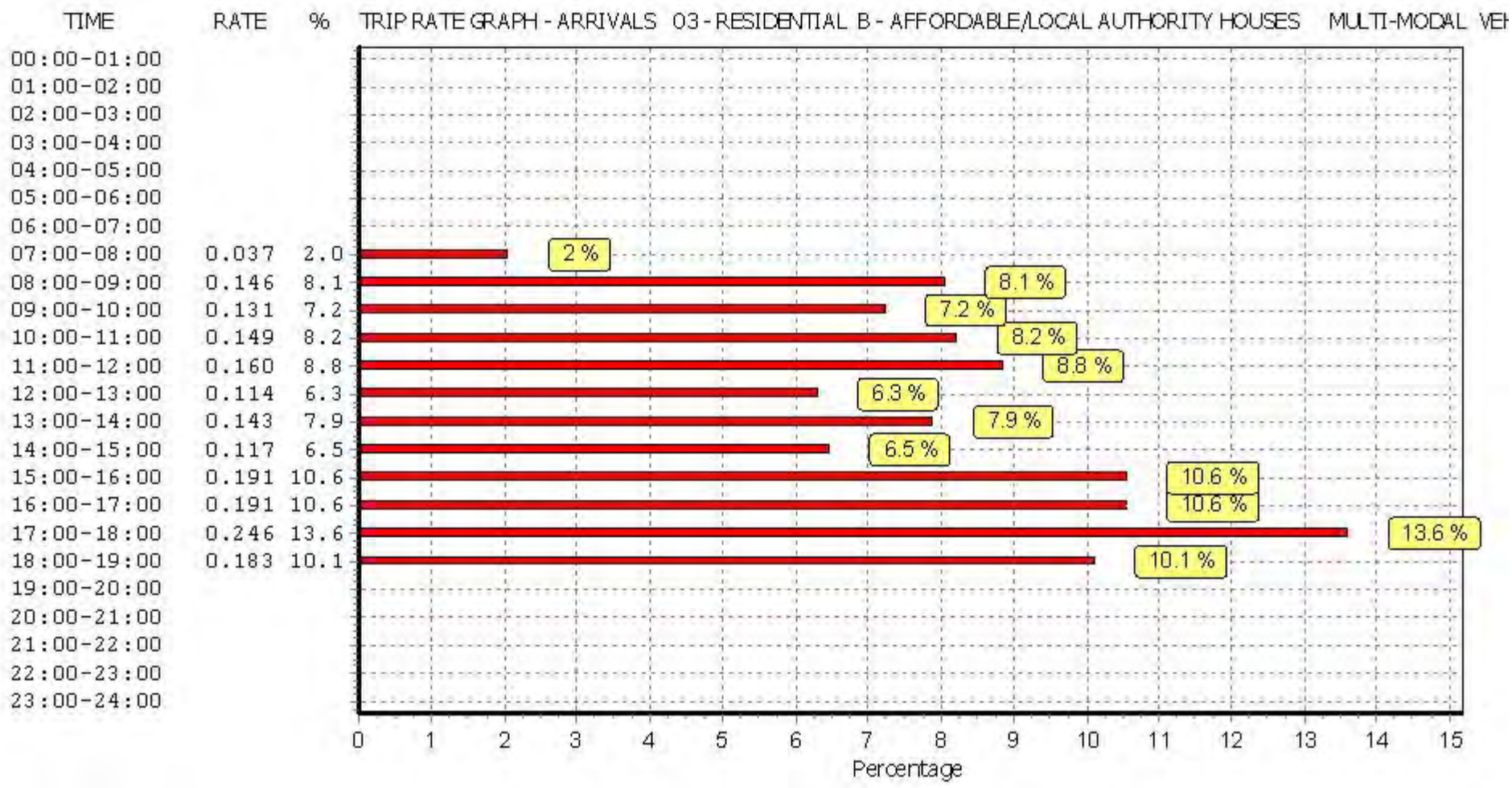
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are 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.

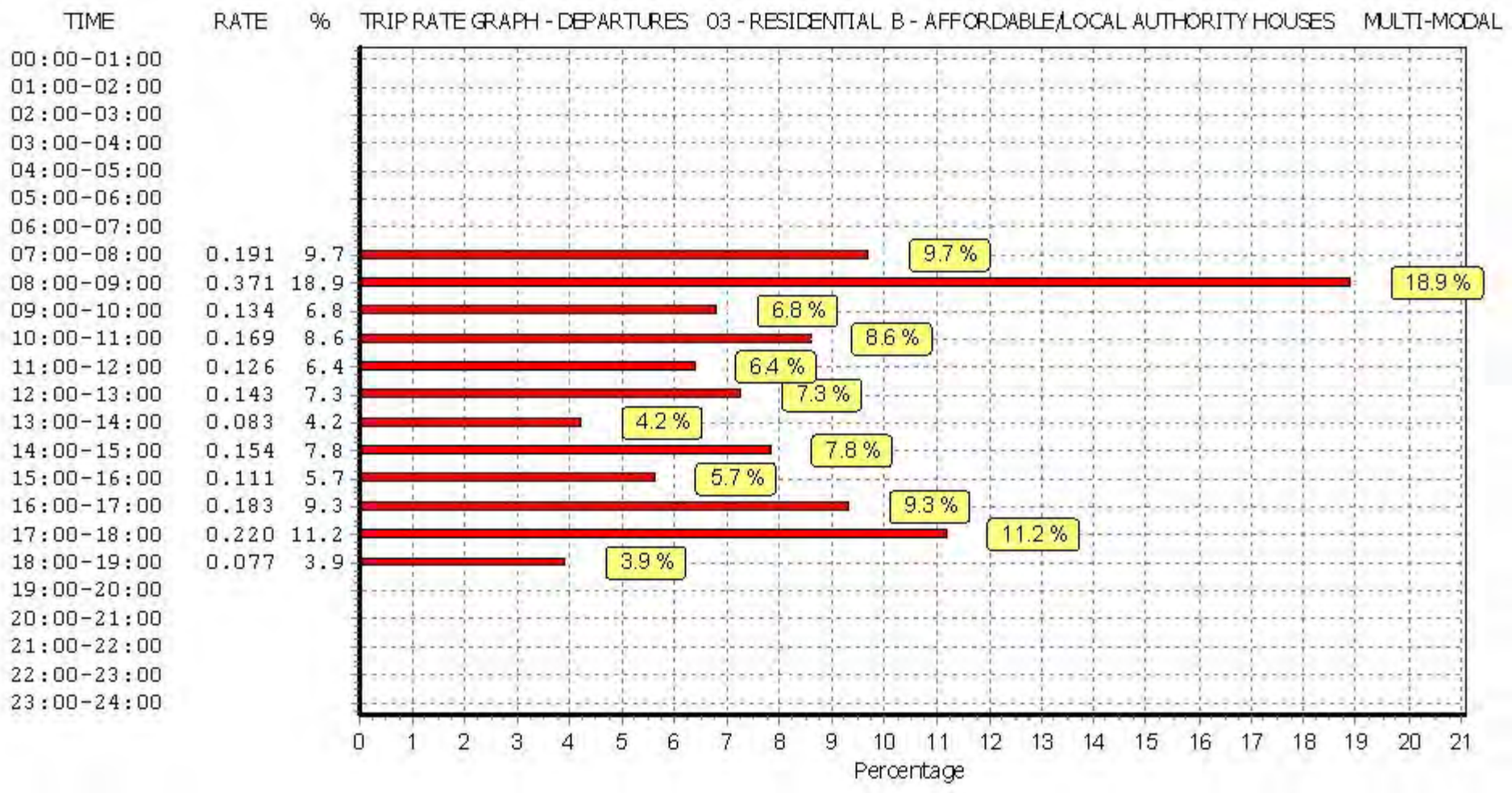
Parameter summary

Trip rate parameter range selected:	16 - 280 (units:)
Survey date date range:	01/01/07 - 19/09/13
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

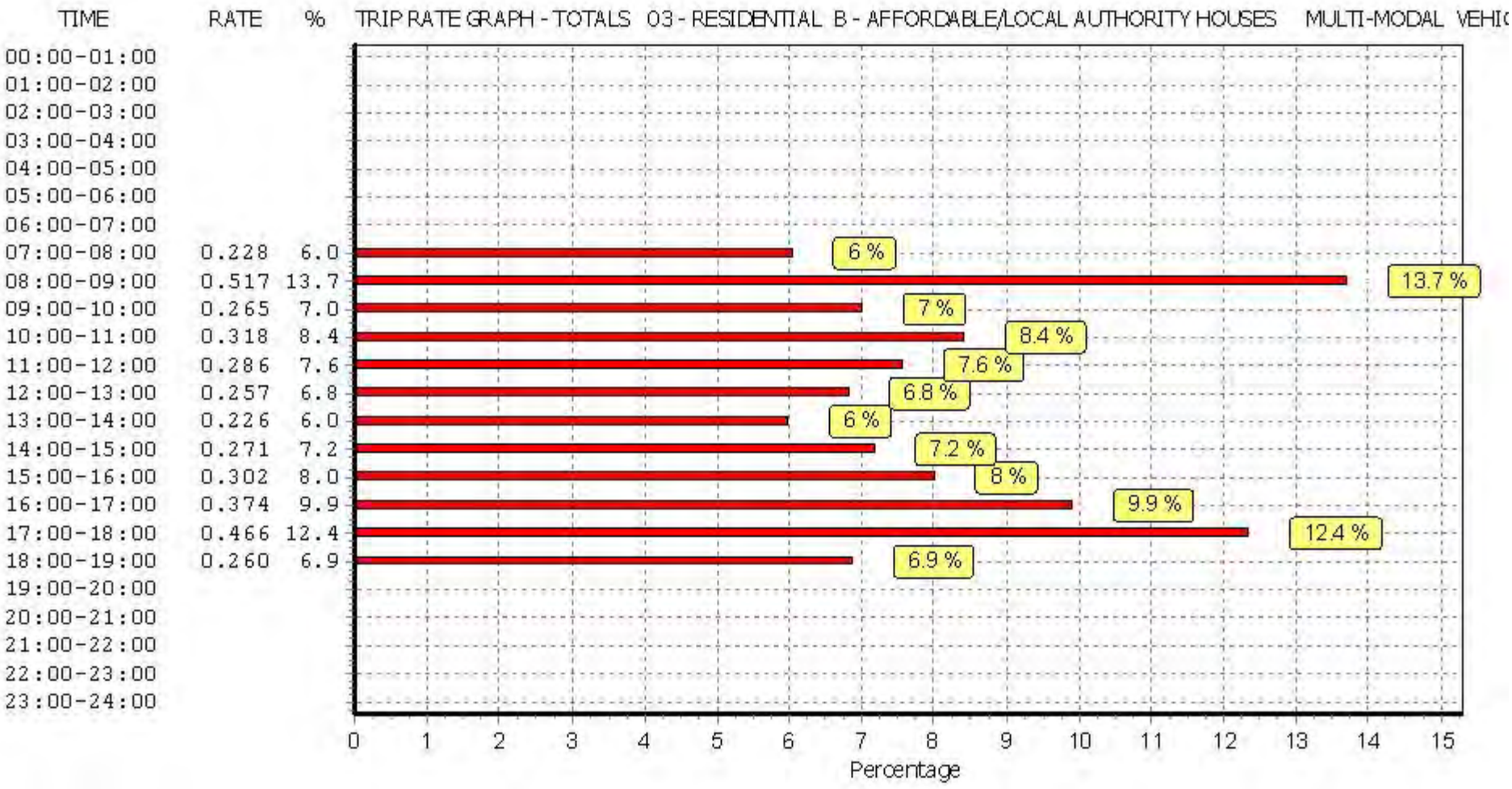
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



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 03 - RESIDENTIAL/B - AFFORDABLE/LOCAL AUTHORITY HOUSES
MULTI-MODAL PEDESTRIANS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	3	117	0.011	3	117	0.040	3	117	0.051
08:00 - 09:00	3	117	0.026	3	117	0.123	3	117	0.149
09:00 - 10:00	3	117	0.057	3	117	0.057	3	117	0.114
10:00 - 11:00	3	117	0.051	3	117	0.063	3	117	0.114
11:00 - 12:00	3	117	0.051	3	117	0.049	3	117	0.100
12:00 - 13:00	3	117	0.063	3	117	0.034	3	117	0.097
13:00 - 14:00	3	117	0.017	3	117	0.037	3	117	0.054
14:00 - 15:00	3	117	0.046	3	117	0.043	3	117	0.089
15:00 - 16:00	3	117	0.063	3	117	0.037	3	117	0.100
16:00 - 17:00	3	117	0.080	3	117	0.043	3	117	0.123
17:00 - 18:00	3	117	0.089	3	117	0.037	3	117	0.126
18:00 - 19:00	3	117	0.037	3	117	0.034	3	117	0.071
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.591			0.597			1.188

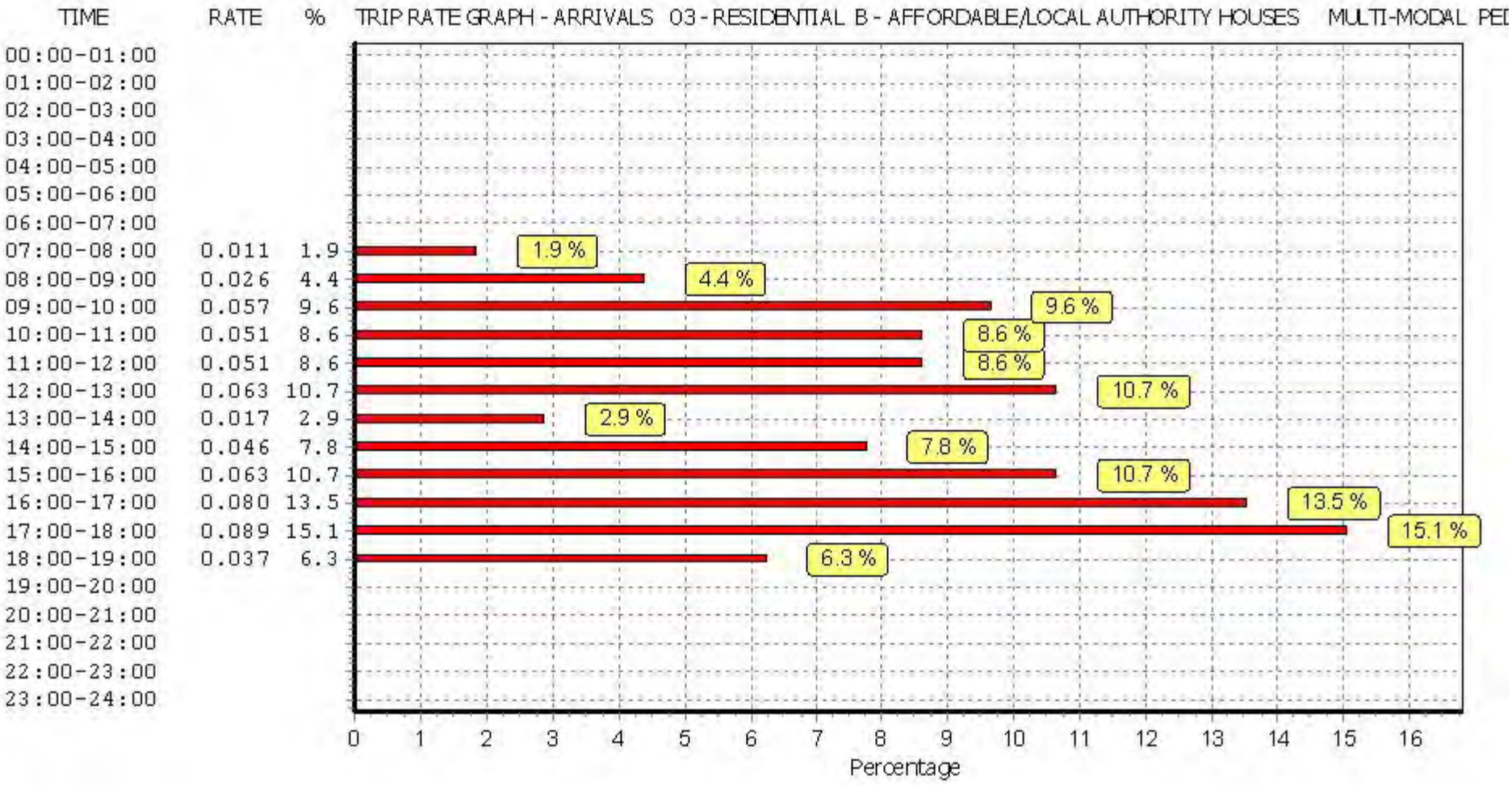
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are 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.

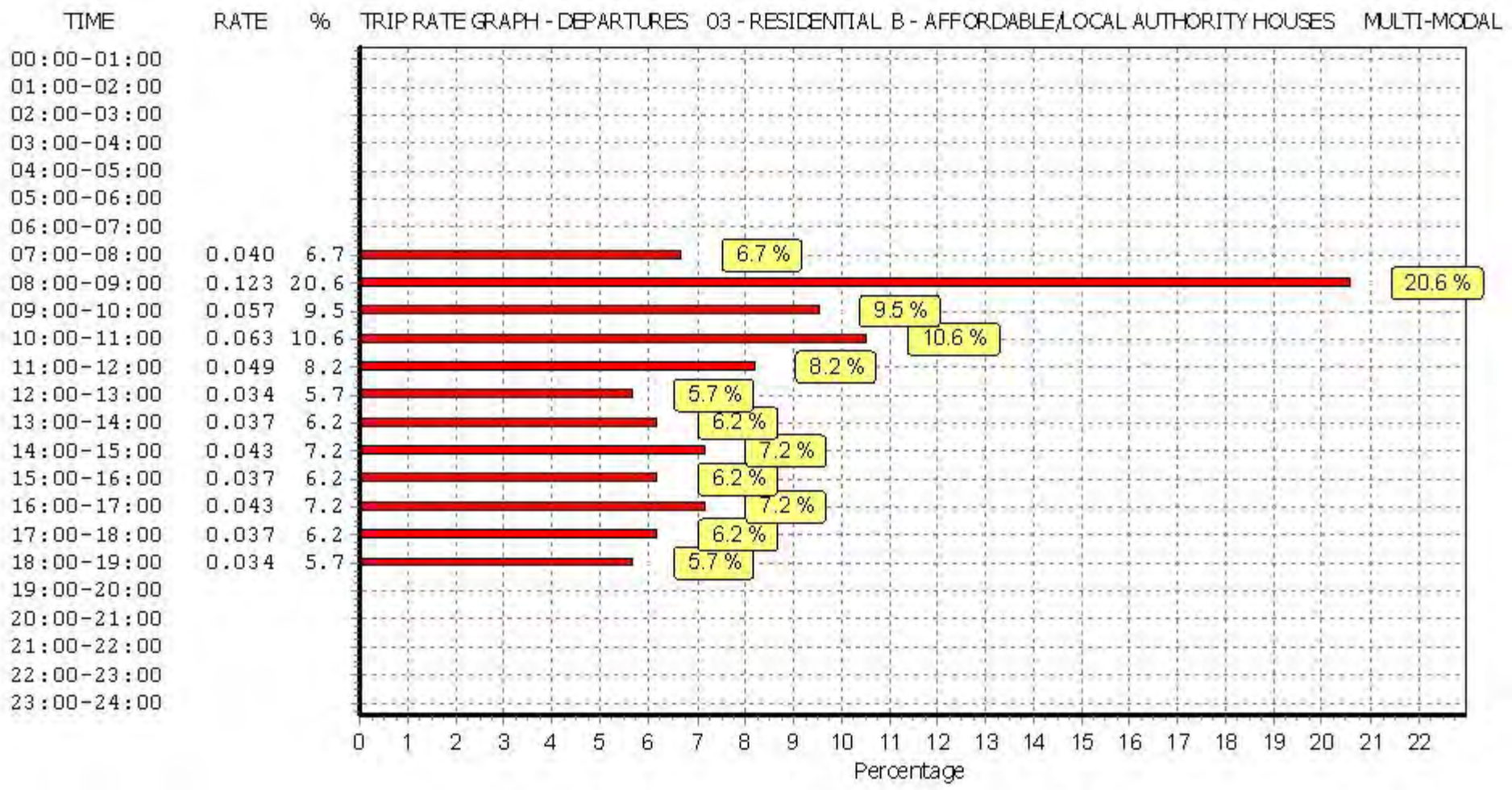
Parameter summary

Trip rate parameter range selected:	16 - 280 (units:)
Survey date date range:	01/01/07 - 19/09/13
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

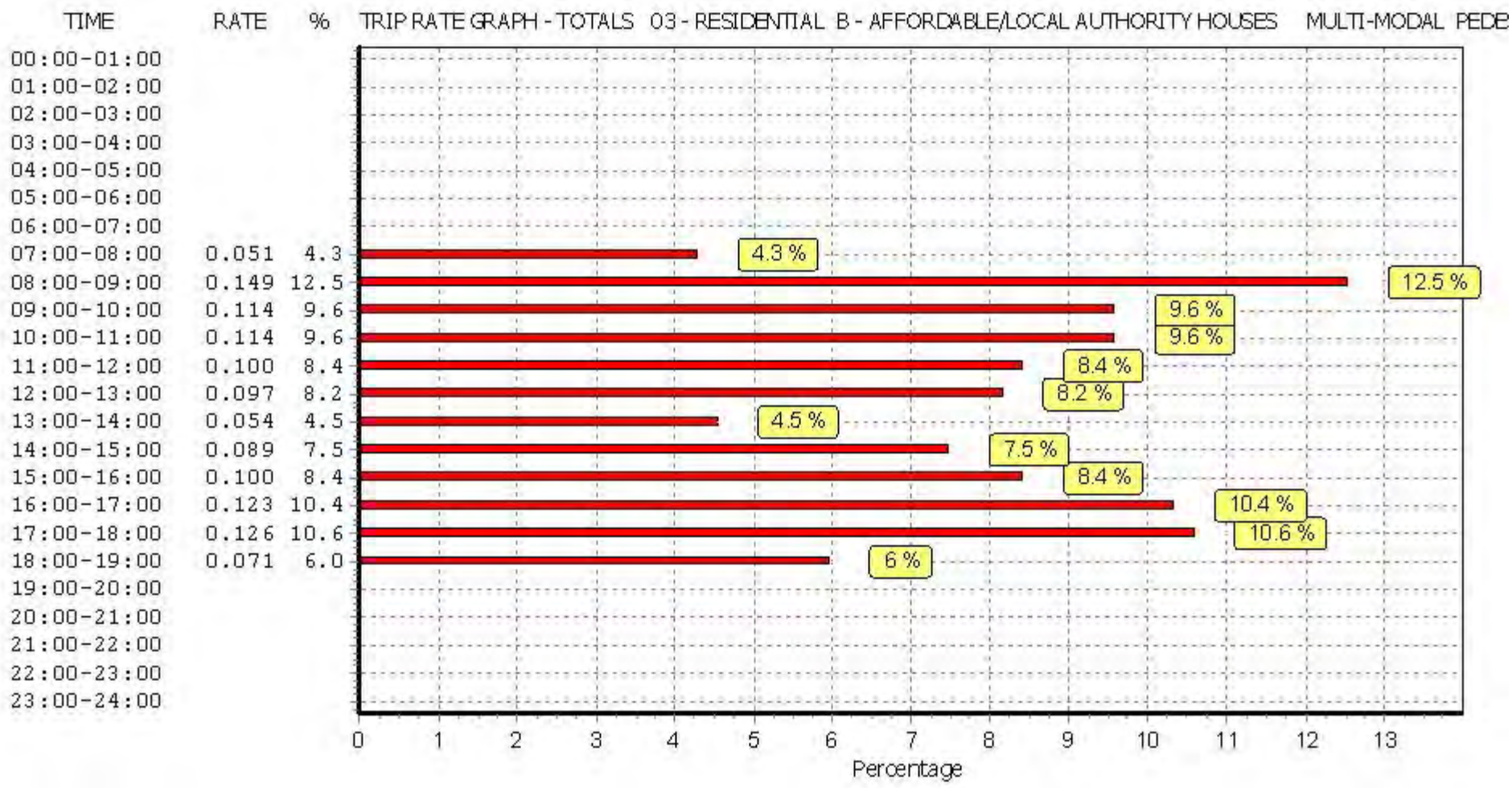
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



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 03 - RESIDENTIAL/B - AFFORDABLE/LOCAL AUTHORITY HOUSES
MULTI-MODAL BUS/TRAM PASSENGERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	3	117	0.000	3	117	0.000	3	117	0.000
08:00 - 09:00	3	117	0.000	3	117	0.003	3	117	0.003
09:00 - 10:00	3	117	0.006	3	117	0.011	3	117	0.017
10:00 - 11:00	3	117	0.000	3	117	0.000	3	117	0.000
11:00 - 12:00	3	117	0.006	3	117	0.009	3	117	0.015
12:00 - 13:00	3	117	0.000	3	117	0.000	3	117	0.000
13:00 - 14:00	3	117	0.026	3	117	0.009	3	117	0.035
14:00 - 15:00	3	117	0.000	3	117	0.000	3	117	0.000
15:00 - 16:00	3	117	0.000	3	117	0.003	3	117	0.003
16:00 - 17:00	3	117	0.000	3	117	0.000	3	117	0.000
17:00 - 18:00	3	117	0.000	3	117	0.000	3	117	0.000
18:00 - 19:00	3	117	0.000	3	117	0.000	3	117	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.038			0.035			0.073

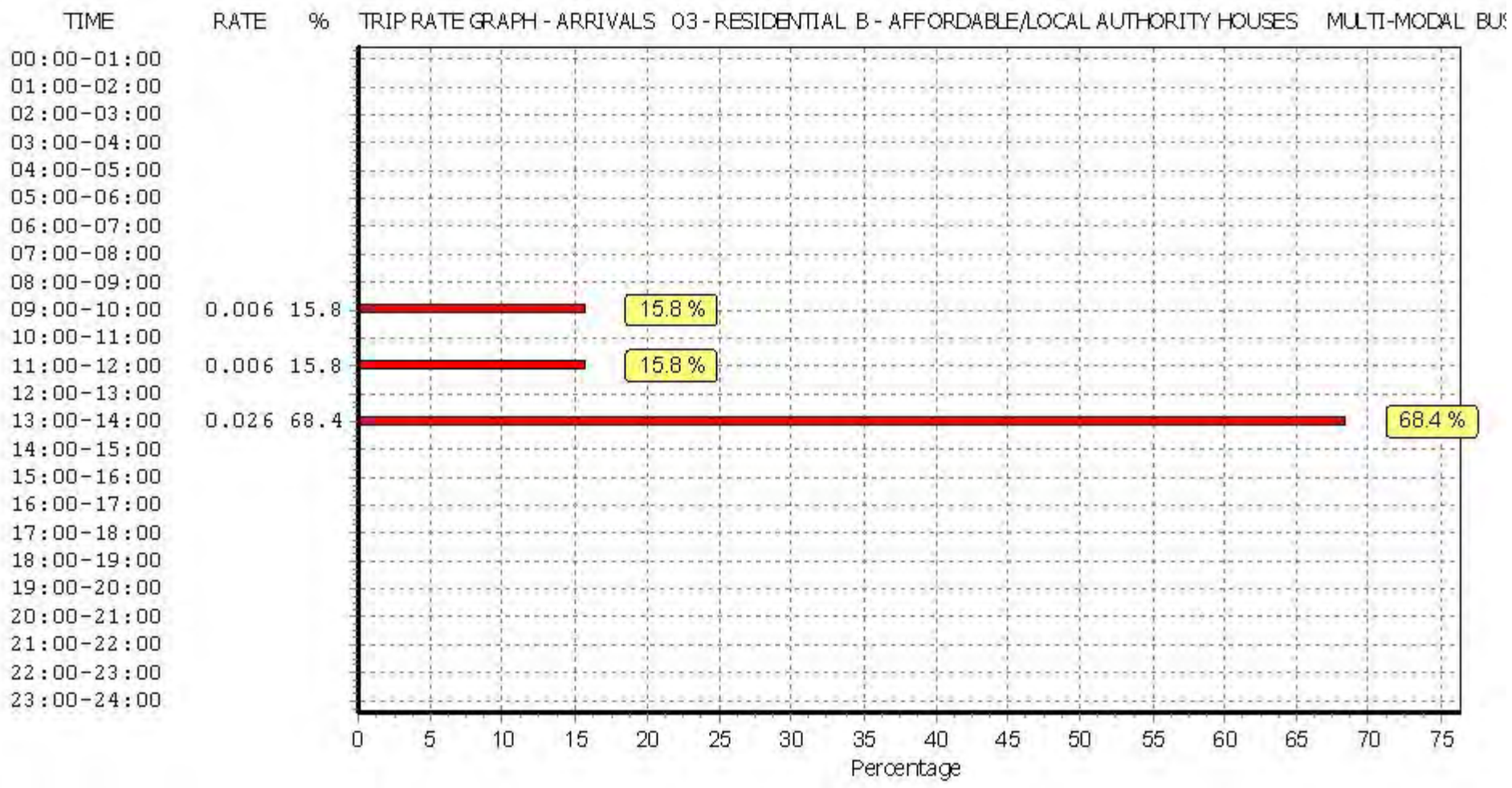
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are 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.

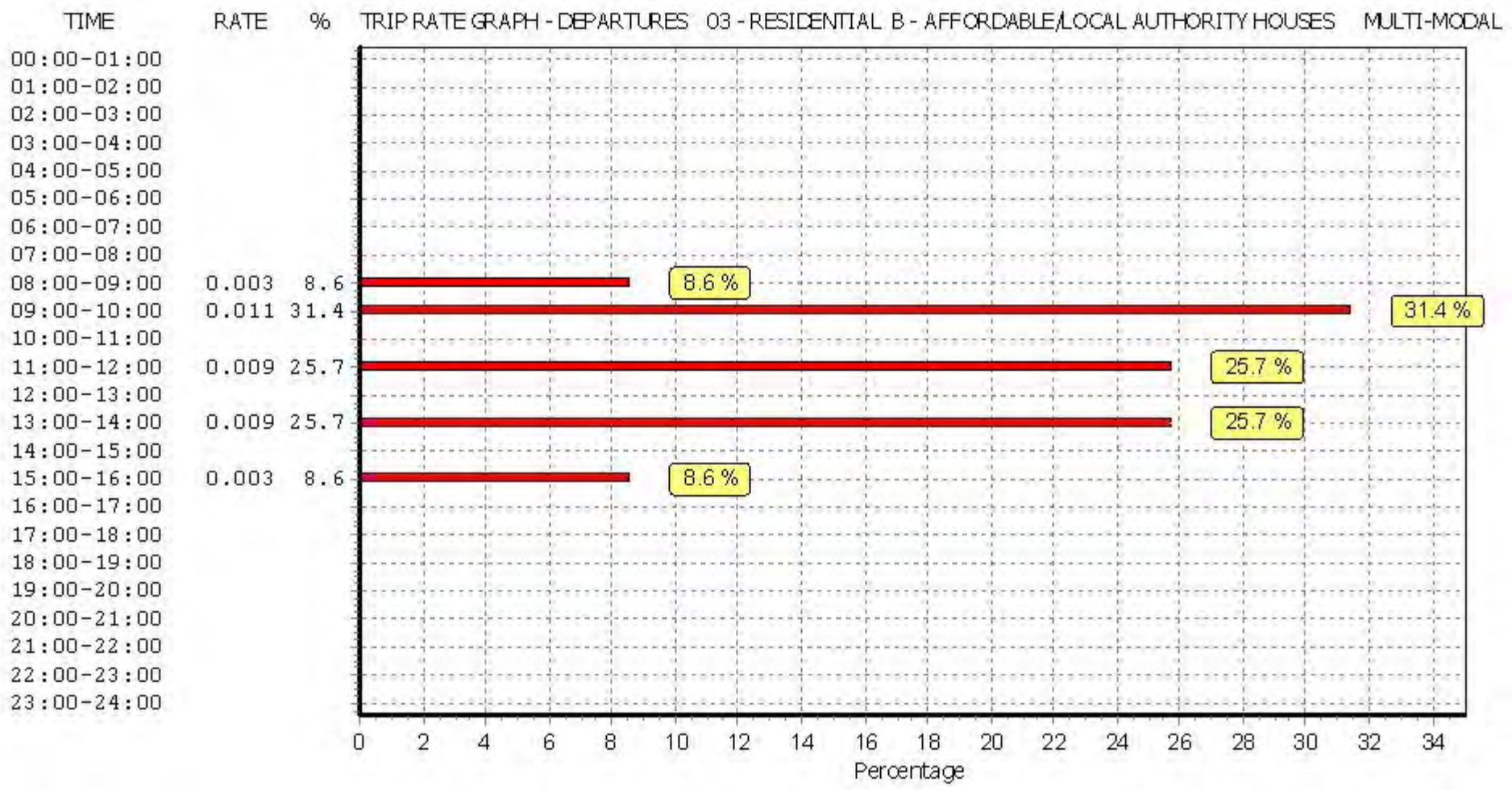
Parameter summary

Trip rate parameter range selected:	16 - 280 (units:)
Survey date date range:	01/01/07 - 19/09/13
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

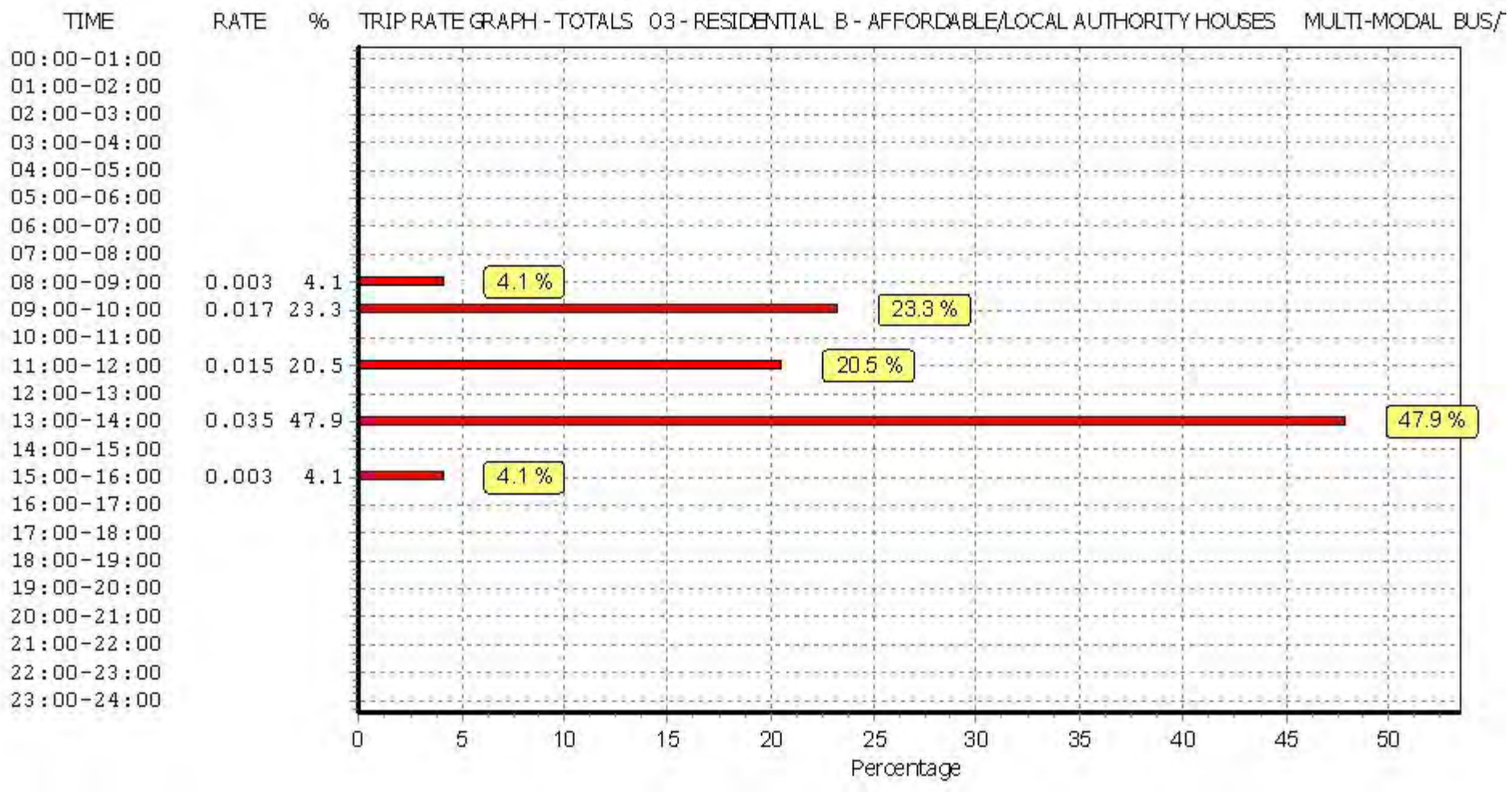
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



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 03 - RESIDENTIAL/B - AFFORDABLE/LOCAL AUTHORITY HOUSES
MULTI-MODAL TOTAL RAIL PASSENGERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	3	117	0.000	3	117	0.000	3	117	0.000
08:00 - 09:00	3	117	0.000	3	117	0.000	3	117	0.000
09:00 - 10:00	3	117	0.000	3	117	0.000	3	117	0.000
10:00 - 11:00	3	117	0.000	3	117	0.000	3	117	0.000
11:00 - 12:00	3	117	0.000	3	117	0.000	3	117	0.000
12:00 - 13:00	3	117	0.000	3	117	0.000	3	117	0.000
13:00 - 14:00	3	117	0.000	3	117	0.000	3	117	0.000
14:00 - 15:00	3	117	0.000	3	117	0.000	3	117	0.000
15:00 - 16:00	3	117	0.000	3	117	0.000	3	117	0.000
16:00 - 17:00	3	117	0.000	3	117	0.000	3	117	0.000
17:00 - 18:00	3	117	0.000	3	117	0.000	3	117	0.000
18:00 - 19:00	3	117	0.000	3	117	0.000	3	117	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.000			0.000			0.000

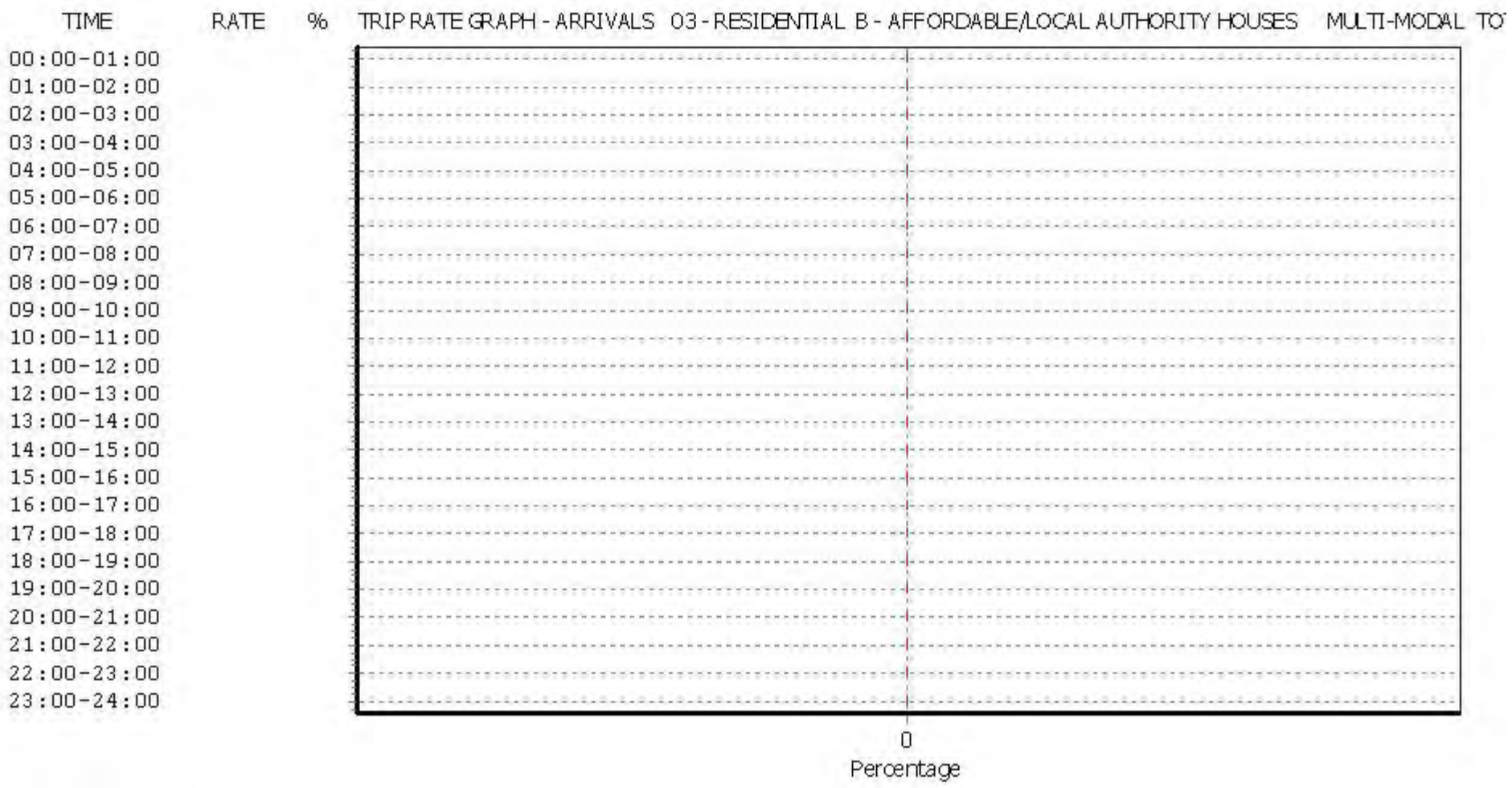
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are 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.

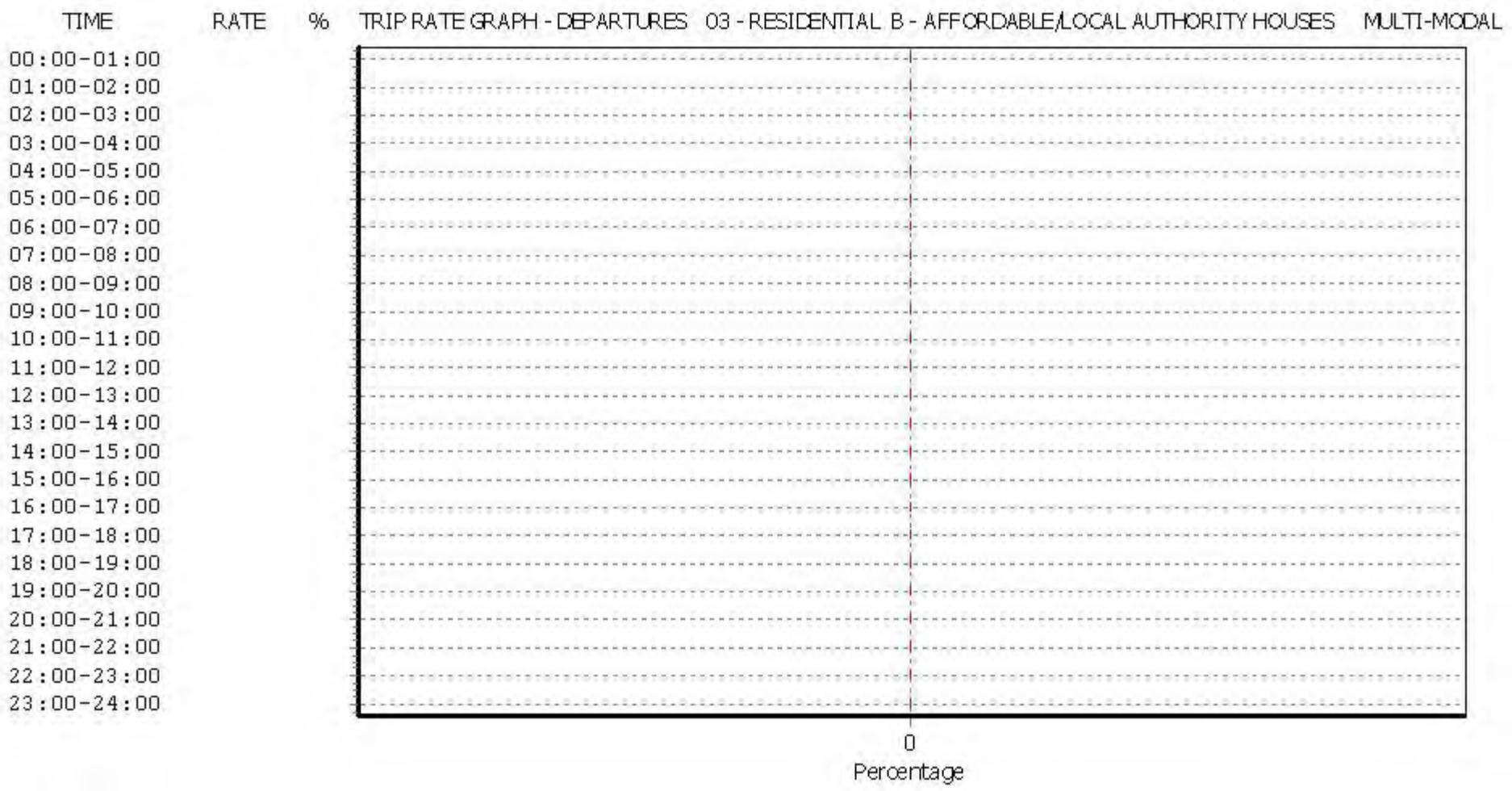
Parameter summary

Trip rate parameter range selected:	16 - 280 (units:)
Survey date date range:	01/01/07 - 19/09/13
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

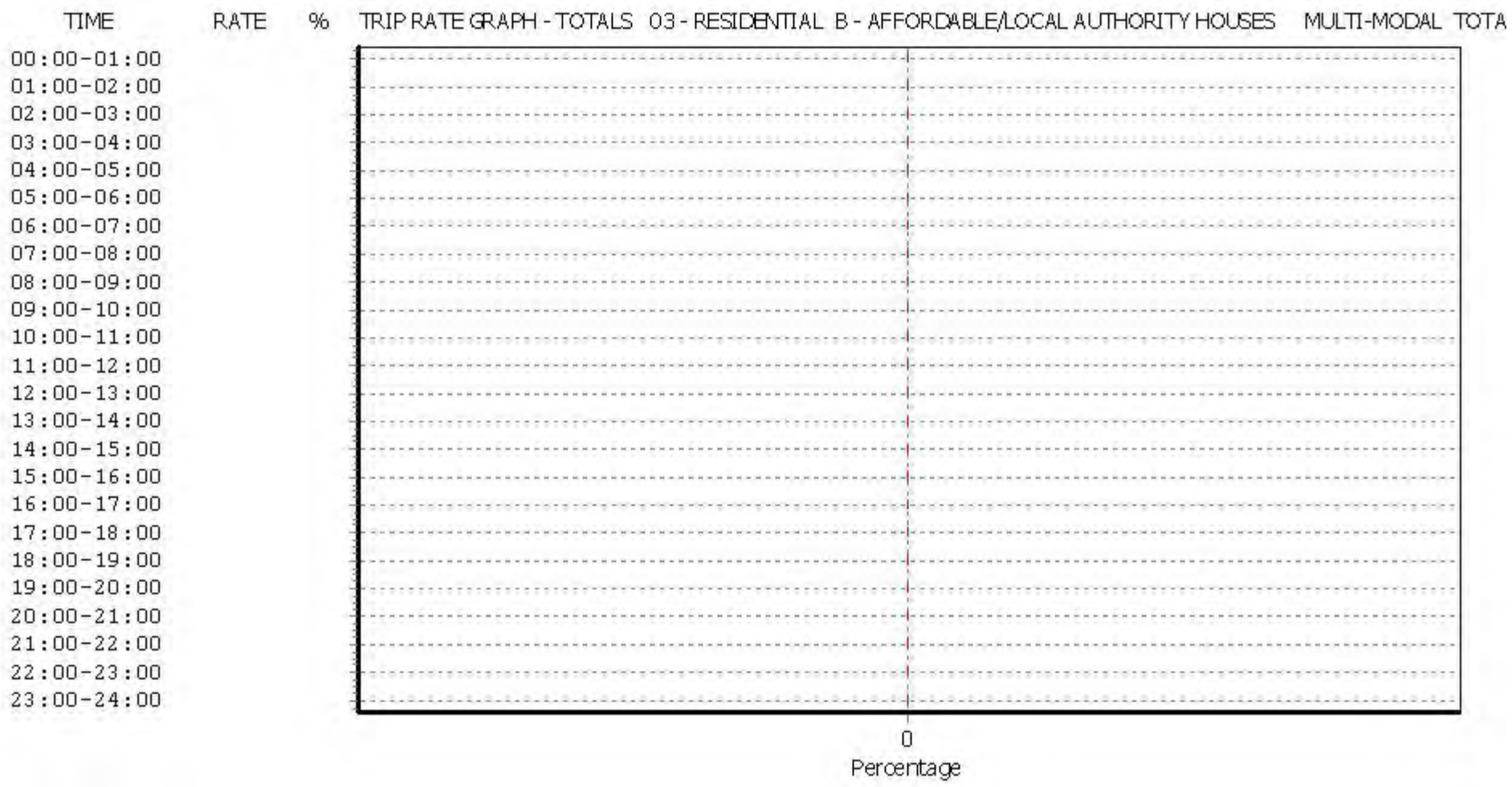
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



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 03 - RESIDENTIAL/B - AFFORDABLE/LOCAL AUTHORITY HOUSES
MULTI-MODAL COACH PASSENGERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	3	117	0.000	3	117	0.000	3	117	0.000
08:00 - 09:00	3	117	0.000	3	117	0.000	3	117	0.000
09:00 - 10:00	3	117	0.000	3	117	0.000	3	117	0.000
10:00 - 11:00	3	117	0.000	3	117	0.000	3	117	0.000
11:00 - 12:00	3	117	0.000	3	117	0.000	3	117	0.000
12:00 - 13:00	3	117	0.000	3	117	0.000	3	117	0.000
13:00 - 14:00	3	117	0.000	3	117	0.000	3	117	0.000
14:00 - 15:00	3	117	0.000	3	117	0.000	3	117	0.000
15:00 - 16:00	3	117	0.000	3	117	0.000	3	117	0.000
16:00 - 17:00	3	117	0.000	3	117	0.000	3	117	0.000
17:00 - 18:00	3	117	0.000	3	117	0.000	3	117	0.000
18:00 - 19:00	3	117	0.000	3	117	0.000	3	117	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.000			0.000			0.000

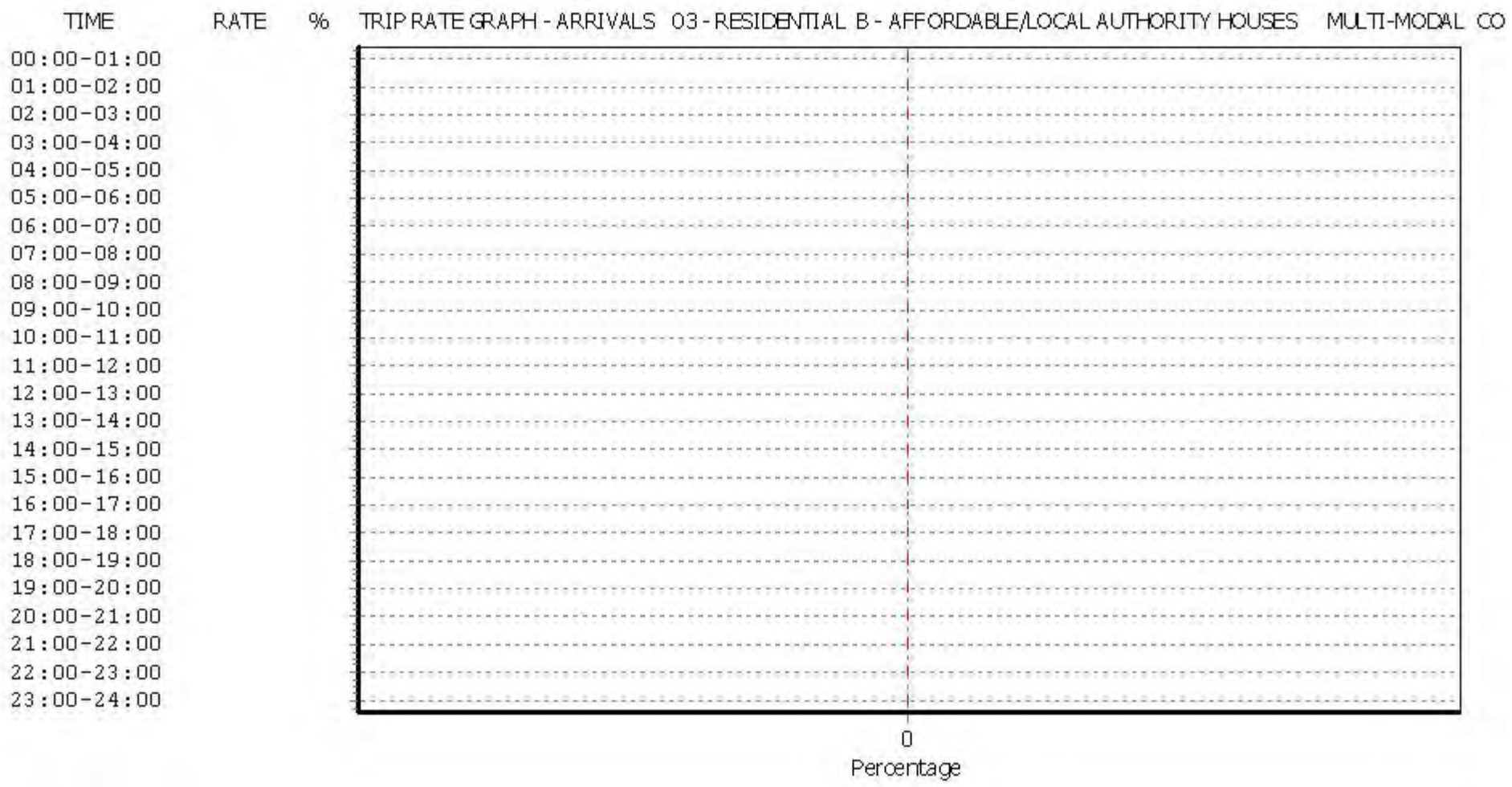
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are 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.

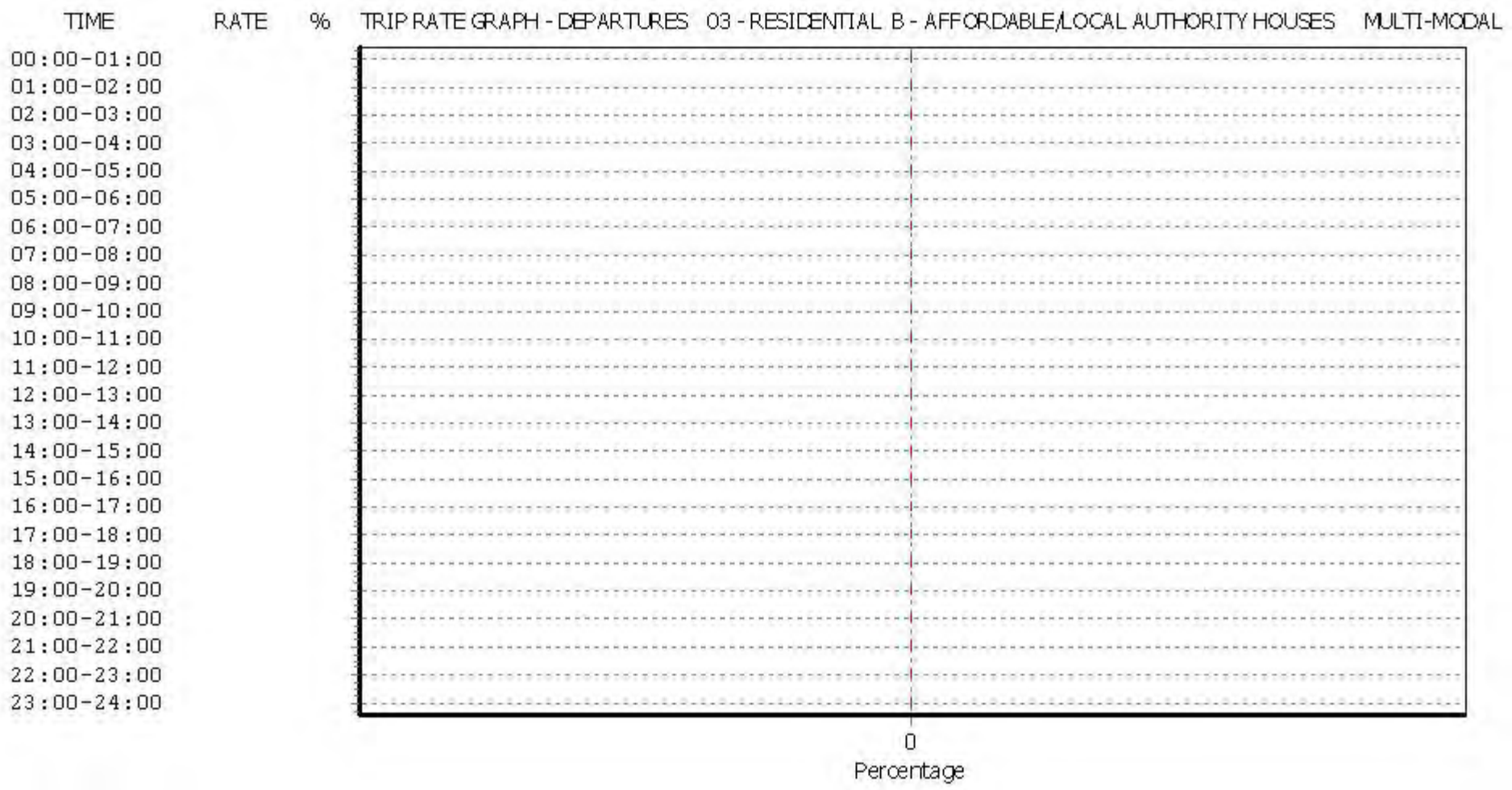
Parameter summary

Trip rate parameter range selected:	16 - 280 (units:)
Survey date date range:	01/01/07 - 19/09/13
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

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



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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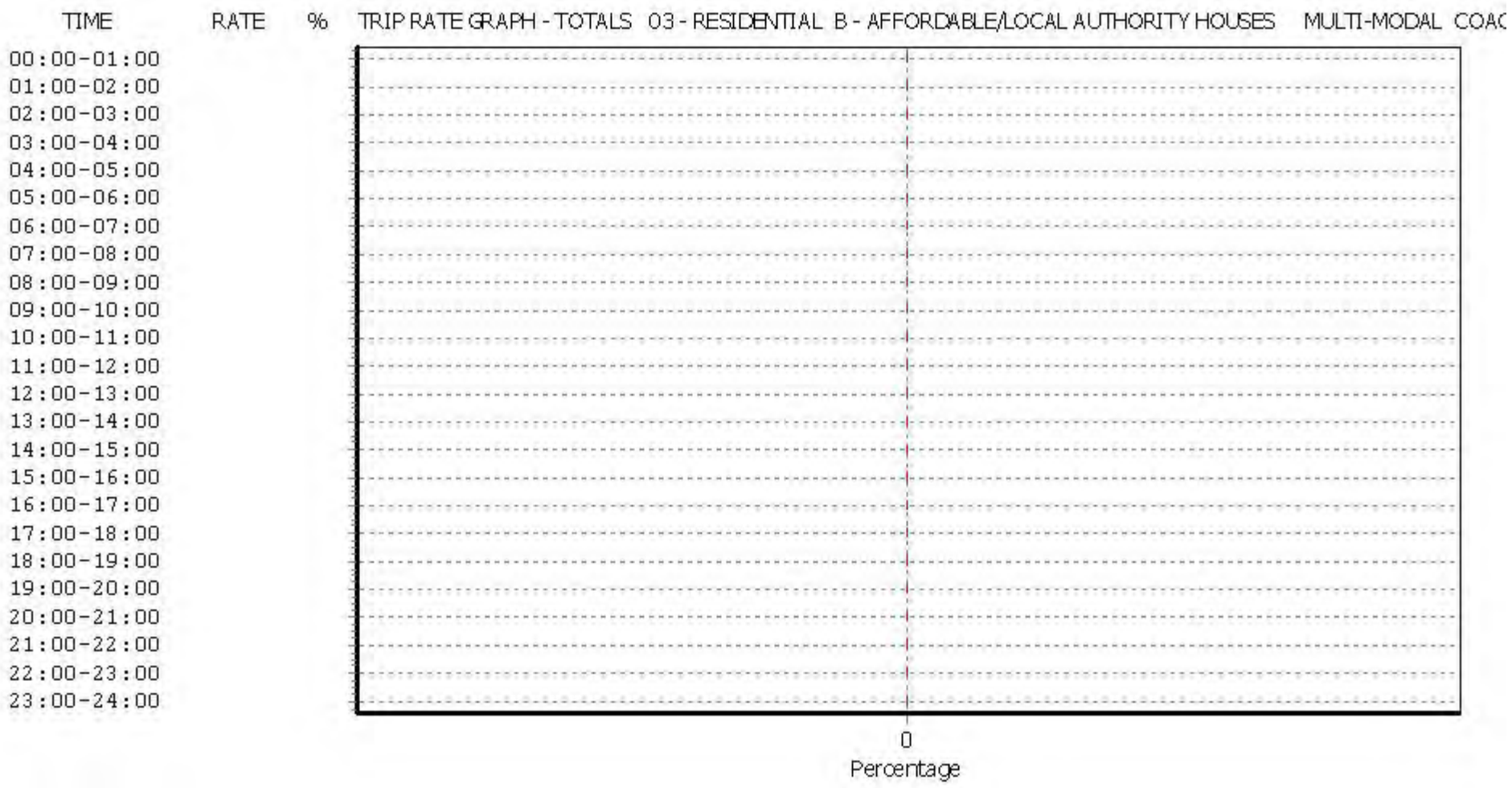


This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through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

TRIP RATE for Land Use 03 - RESIDENTIAL/B - AFFORDABLE/LOCAL AUTHORITY HOUSES
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	3	117	0.000	3	117	0.000	3	117	0.000
08:00 - 09:00	3	117	0.000	3	117	0.003	3	117	0.003
09:00 - 10:00	3	117	0.006	3	117	0.011	3	117	0.017
10:00 - 11:00	3	117	0.000	3	117	0.000	3	117	0.000
11:00 - 12:00	3	117	0.006	3	117	0.009	3	117	0.015
12:00 - 13:00	3	117	0.000	3	117	0.000	3	117	0.000
13:00 - 14:00	3	117	0.026	3	117	0.009	3	117	0.035
14:00 - 15:00	3	117	0.000	3	117	0.000	3	117	0.000
15:00 - 16:00	3	117	0.000	3	117	0.003	3	117	0.003
16:00 - 17:00	3	117	0.000	3	117	0.000	3	117	0.000
17:00 - 18:00	3	117	0.000	3	117	0.000	3	117	0.000
18:00 - 19:00	3	117	0.000	3	117	0.000	3	117	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.038			0.035			0.073

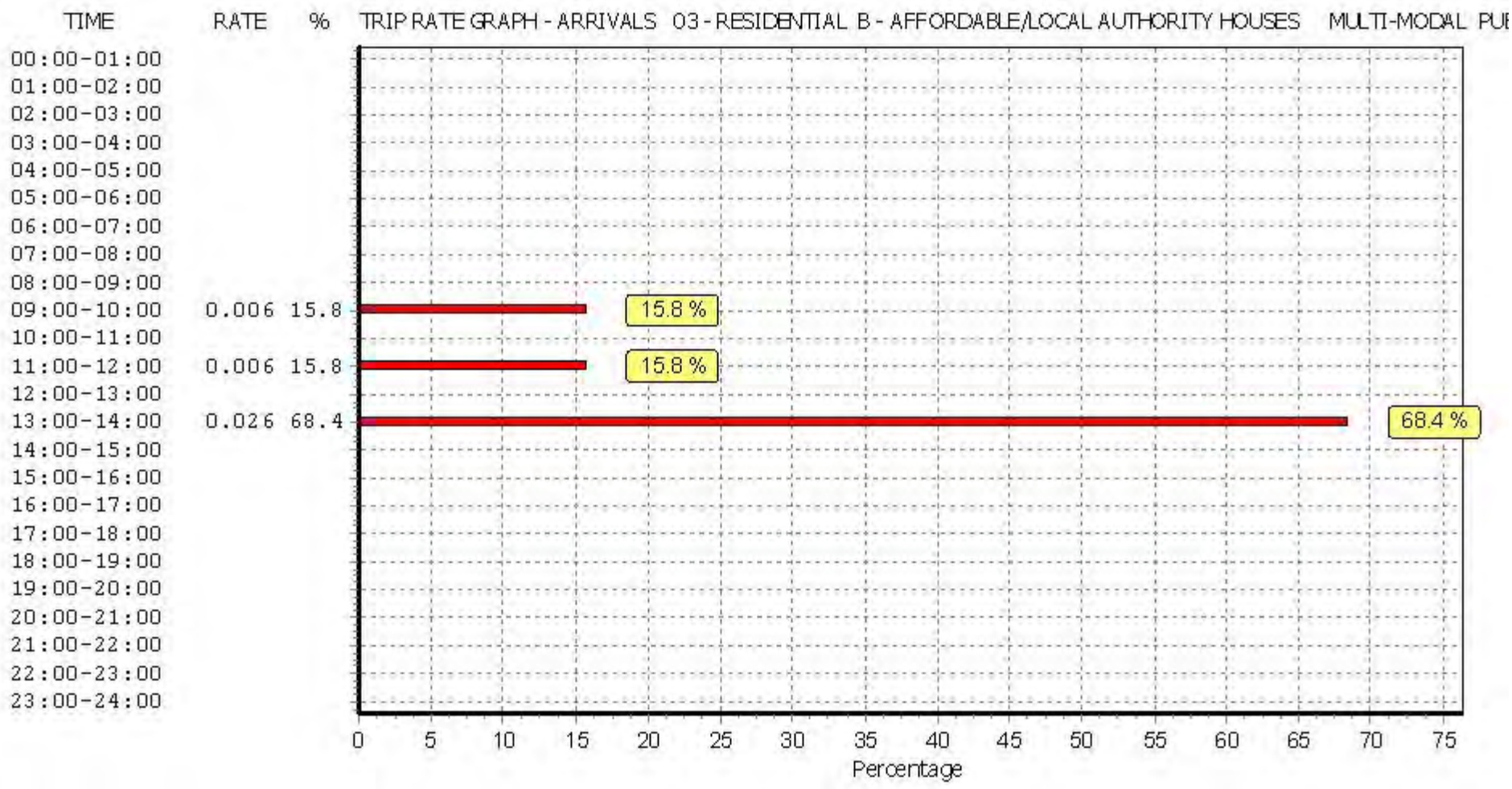
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are 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.

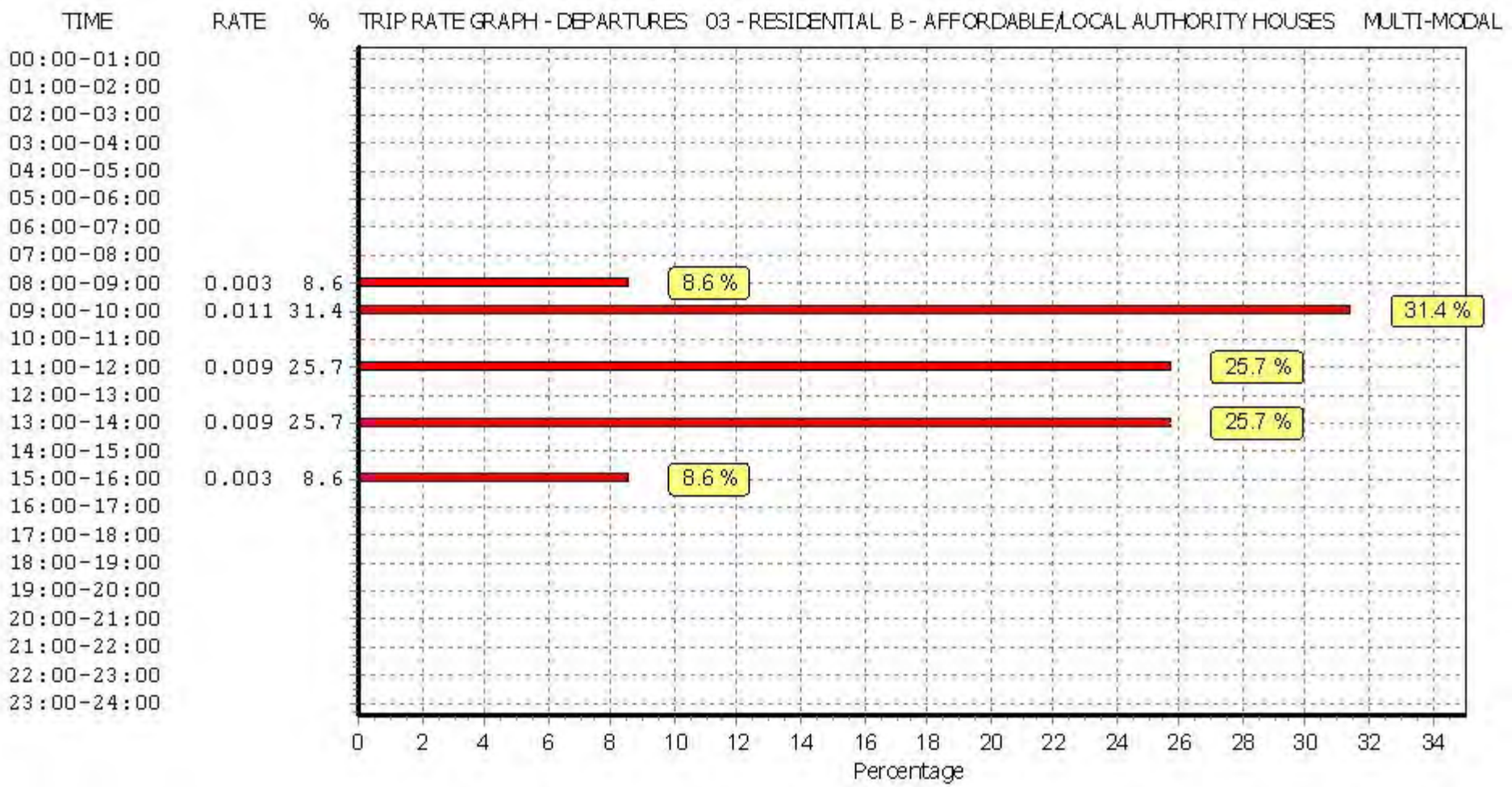
Parameter summary

Trip rate parameter range selected:	16 - 280 (units:)
Survey date date range:	01/01/07 - 19/09/13
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

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



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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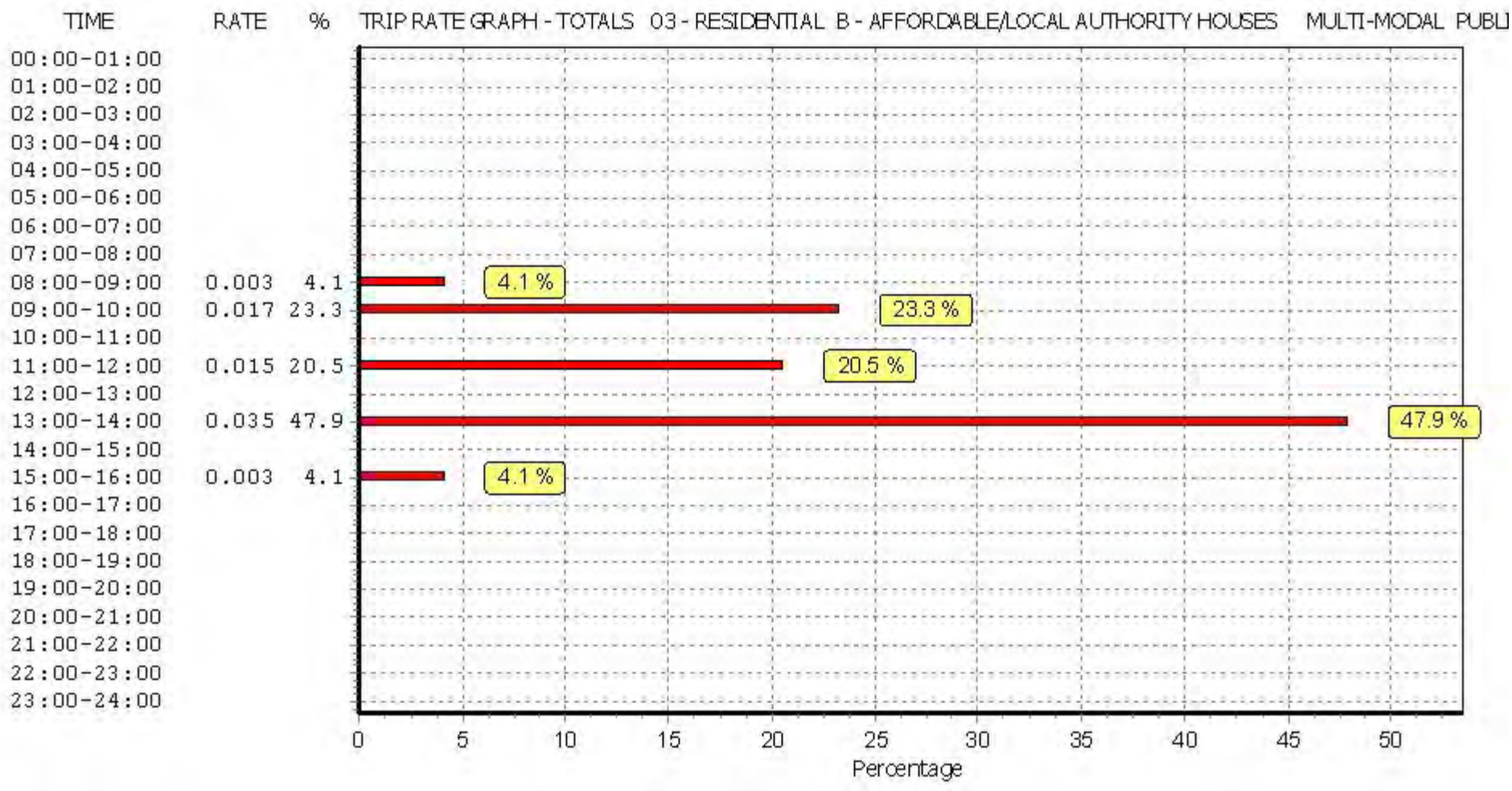

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TRIP RATE for Land Use 03 - RESIDENTIAL/B - AFFORDABLE/LOCAL AUTHORITY HOUSES
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	3	117	0.051	3	117	0.231	3	117	0.282
08:00 - 09:00	3	117	0.174	3	117	0.509	3	117	0.683
09:00 - 10:00	3	117	0.197	3	117	0.211	3	117	0.408
10:00 - 11:00	3	117	0.200	3	117	0.231	3	117	0.431
11:00 - 12:00	3	117	0.220	3	117	0.186	3	117	0.406
12:00 - 13:00	3	117	0.186	3	117	0.180	3	117	0.366
13:00 - 14:00	3	117	0.189	3	117	0.131	3	117	0.320
14:00 - 15:00	3	117	0.163	3	117	0.200	3	117	0.363
15:00 - 16:00	3	117	0.266	3	117	0.151	3	117	0.417
16:00 - 17:00	3	117	0.274	3	117	0.229	3	117	0.503
17:00 - 18:00	3	117	0.337	3	117	0.260	3	117	0.597
18:00 - 19:00	3	117	0.231	3	117	0.123	3	117	0.354
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.488			2.642			5.130

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Parameter summary

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Survey date date range:	01/01/07 - 19/09/13
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

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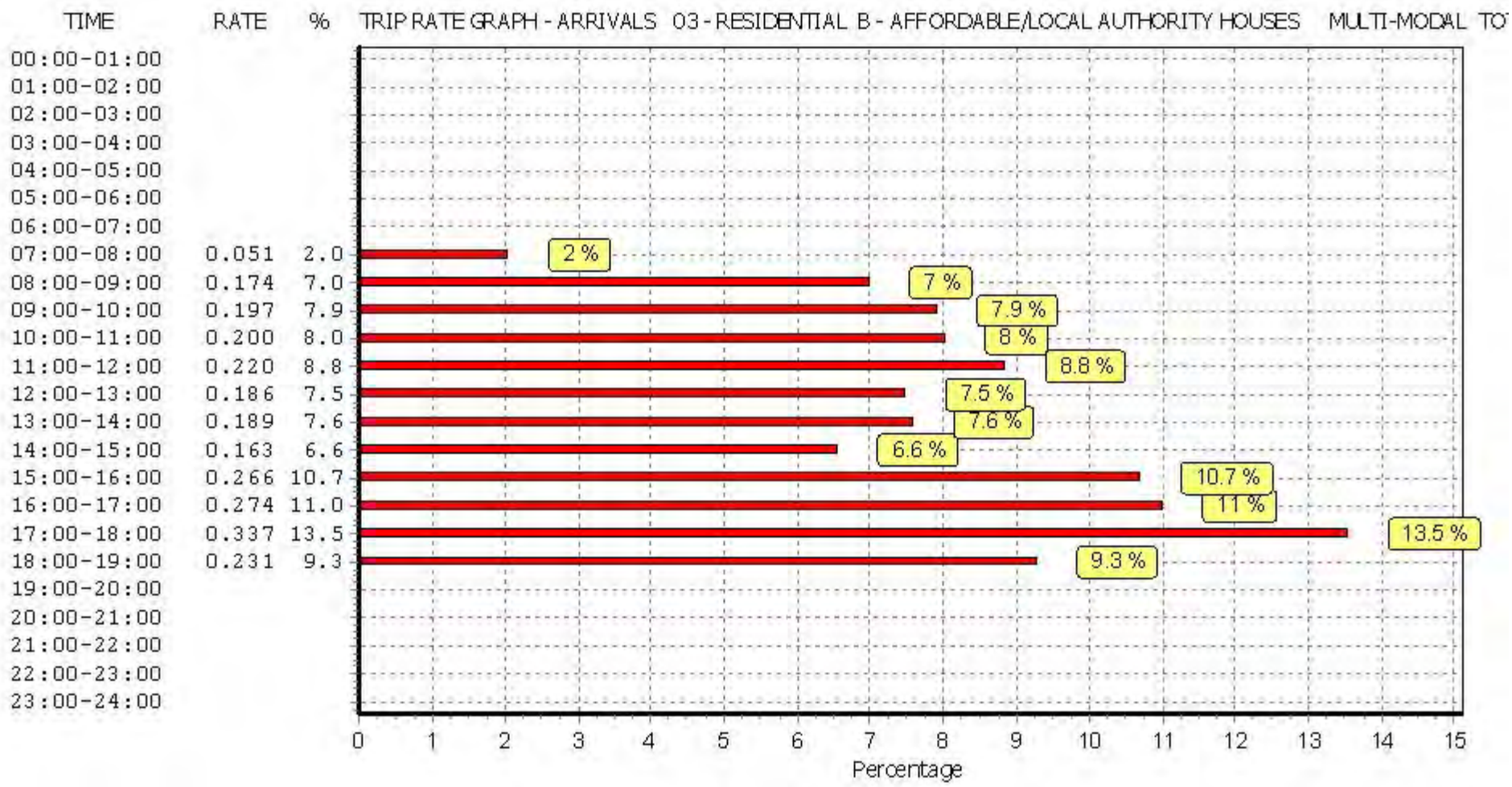

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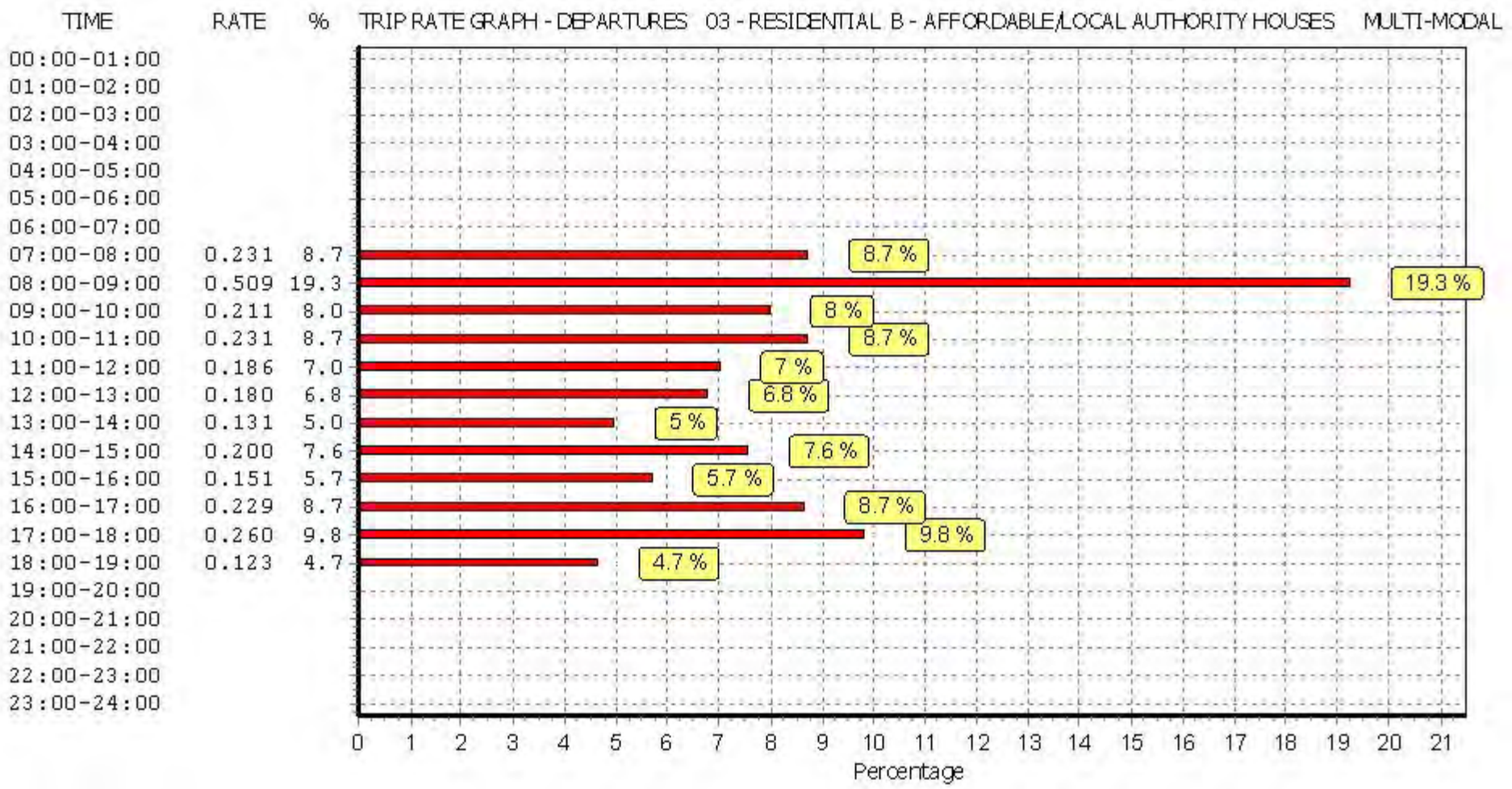

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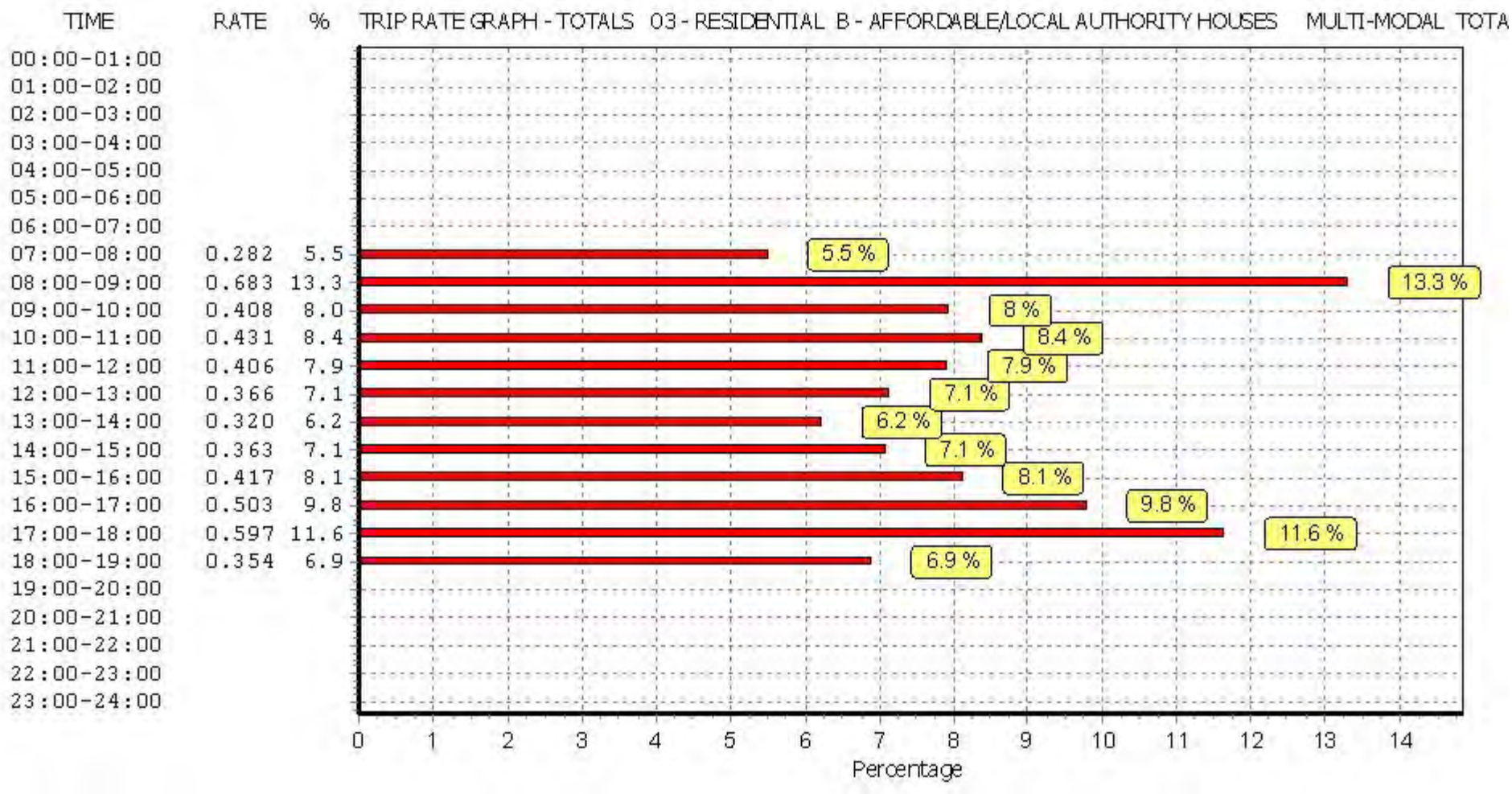

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Calculation Reference: AUDIT-515501-150427-0404

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED
MULTI-MODAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	EX	ESSEX	1 days
05	EAST MIDLANDS		
	LN	LINCOLNSHIRE	2 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NE	NORTH EAST LINCOLNSHIRE	1 days
08	NORTH WEST		
	CH	CHESHIRE	1 days
10	WALES		
	CF	CARDIFF	1 days
11	SCOTLAND		
	FI	FIFE	1 days
	SR	STIRLING	1 days

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

Filtering Stage 2 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: Number of dwellings
Actual Range: 115 to 432 (units:)
Range Selected by User: 100 to 500 (units:)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/07 to 11/12/14

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

Selected survey days:

Monday	4 days
Tuesday	3 days
Friday	1 days

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

Selected survey types:

Manual count	8 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	3
Edge of Town	5

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

Selected Location Sub Categories:

Residential Zone	6
No Sub Category	2

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

Filtering Stage 3 selection:

Use Class:

C3	8 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:

10,001 to 15,000	2 days
15,001 to 20,000	6 days

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

Population within 5 miles:

50,001 to 75,000	2 days
75,001 to 100,000	1 days
100,001 to 125,000	3 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	5 days

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

Travel Plan:

No	8 days

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

LIST OF SITES relevant to selection parameters

1 CF-03-A-02 MIXED HOUSES CARDIFF
DROPE ROAD

CARDIFF
Edge of Town
Residential Zone
Total Number of dwellings: 196
Survey date: FRIDAY 05/10/07 Survey Type: MANUAL

2 CH-03-A-06 SEMI-DET./BUNGALOWS CHESHIRE
CREWE ROAD

CREWE
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of dwellings: 129
Survey date: TUESDAY 14/10/08 Survey Type: MANUAL

3 EX-03-A-01 SEMI-DET. ESSEX
MILTON ROAD
CORRINGHAM
STANFORD-LE-HOPE
Edge of Town
Residential Zone
Total Number of dwellings: 237
Survey date: TUESDAY 13/05/08 Survey Type: MANUAL

4 FI-03-A-03 MIXED HOUSES FIFE
WOODMILL ROAD

DUNFERMLINE
Edge of Town
Residential Zone
Total Number of dwellings: 155
Survey date: MONDAY 30/04/07 Survey Type: MANUAL

5 LN-03-A-01 MIXED HOUSES LINCOLNSHIRE
BRANT ROAD
BRACEBRIDGE
LINCOLN
Edge of Town
Residential Zone
Total Number of dwellings: 150
Survey date: TUESDAY 15/05/07 Survey Type: MANUAL

6 LN-03-A-02 MIXED HOUSES LINCOLNSHIRE
HYKEHAM ROAD

LINCOLN
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 186
Survey date: MONDAY 14/05/07 Survey Type: MANUAL

7 NE-03-A-02 SEMI DETACHED & DETACHED NORTH EAST LINCOLNSHIRE
HANOVER WALK

SCUNTHORPE
Edge of Town
No Sub Category
Total Number of dwellings: 432
Survey date: MONDAY 12/05/14 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8 SR-03-A-01 DETACHED STIRLING
BENVIEW

STIRLING
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 115
Survey date: MONDAY 23/04/07 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 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	8	200	0.081	8	200	0.283	8	200	0.364
08:00 - 09:00	8	200	0.138	8	200	0.436	8	200	0.574
09:00 - 10:00	8	200	0.154	8	200	0.198	8	200	0.352
10:00 - 11:00	8	200	0.133	8	200	0.174	8	200	0.307
11:00 - 12:00	8	200	0.152	8	200	0.138	8	200	0.290
12:00 - 13:00	8	200	0.188	8	200	0.172	8	200	0.360
13:00 - 14:00	8	200	0.171	8	200	0.170	8	200	0.341
14:00 - 15:00	8	200	0.182	8	200	0.187	8	200	0.369
15:00 - 16:00	8	200	0.303	8	200	0.213	8	200	0.516
16:00 - 17:00	8	200	0.351	8	200	0.207	8	200	0.558
17:00 - 18:00	8	200	0.372	8	200	0.229	8	200	0.601
18:00 - 19:00	8	200	0.273	8	200	0.214	8	200	0.487
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.498			2.621			5.119

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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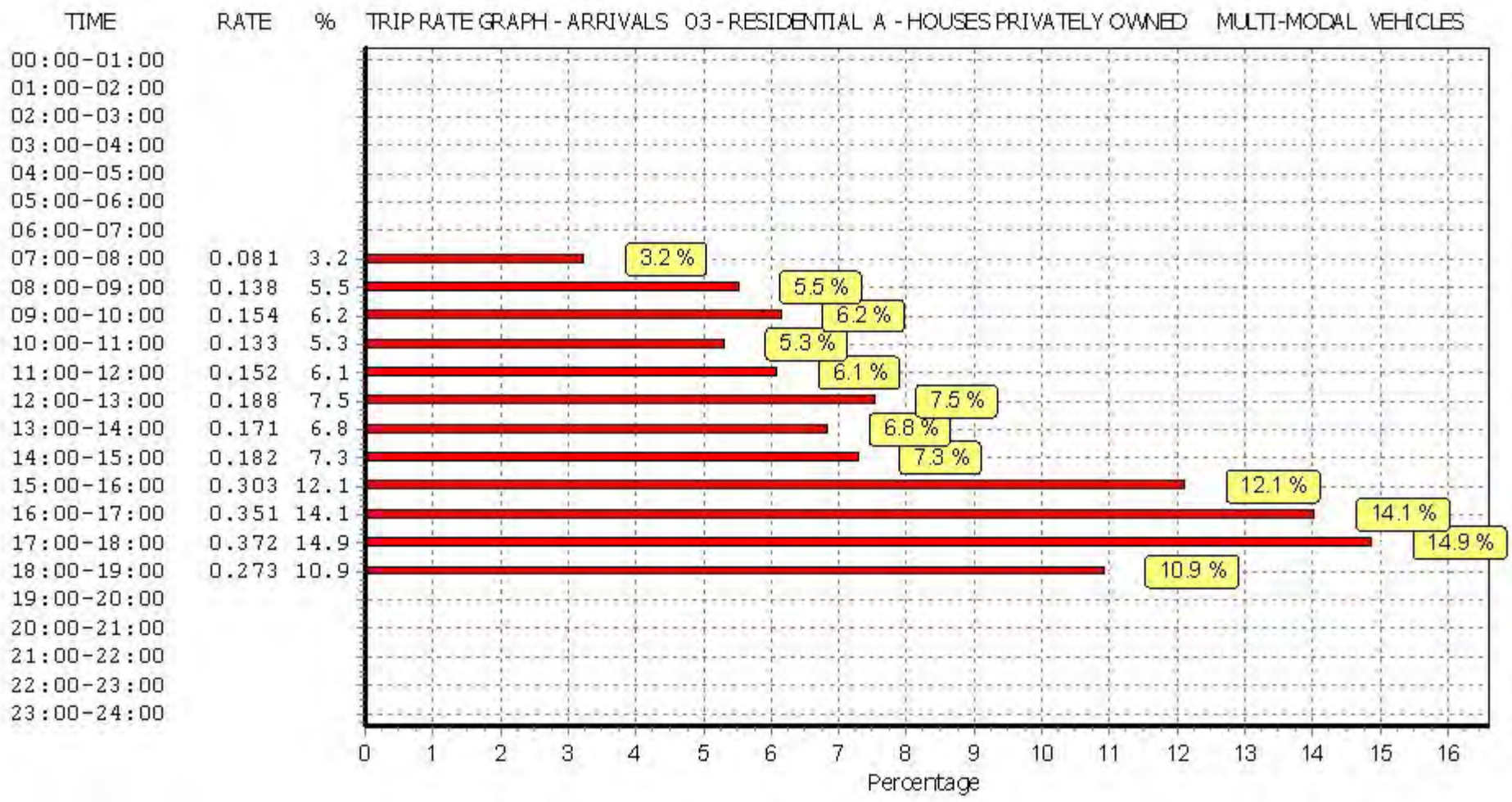
Parameter summary

Trip rate parameter range selected:	115 - 432 (units:)
Survey date date range:	01/01/07 - 11/12/14
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

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



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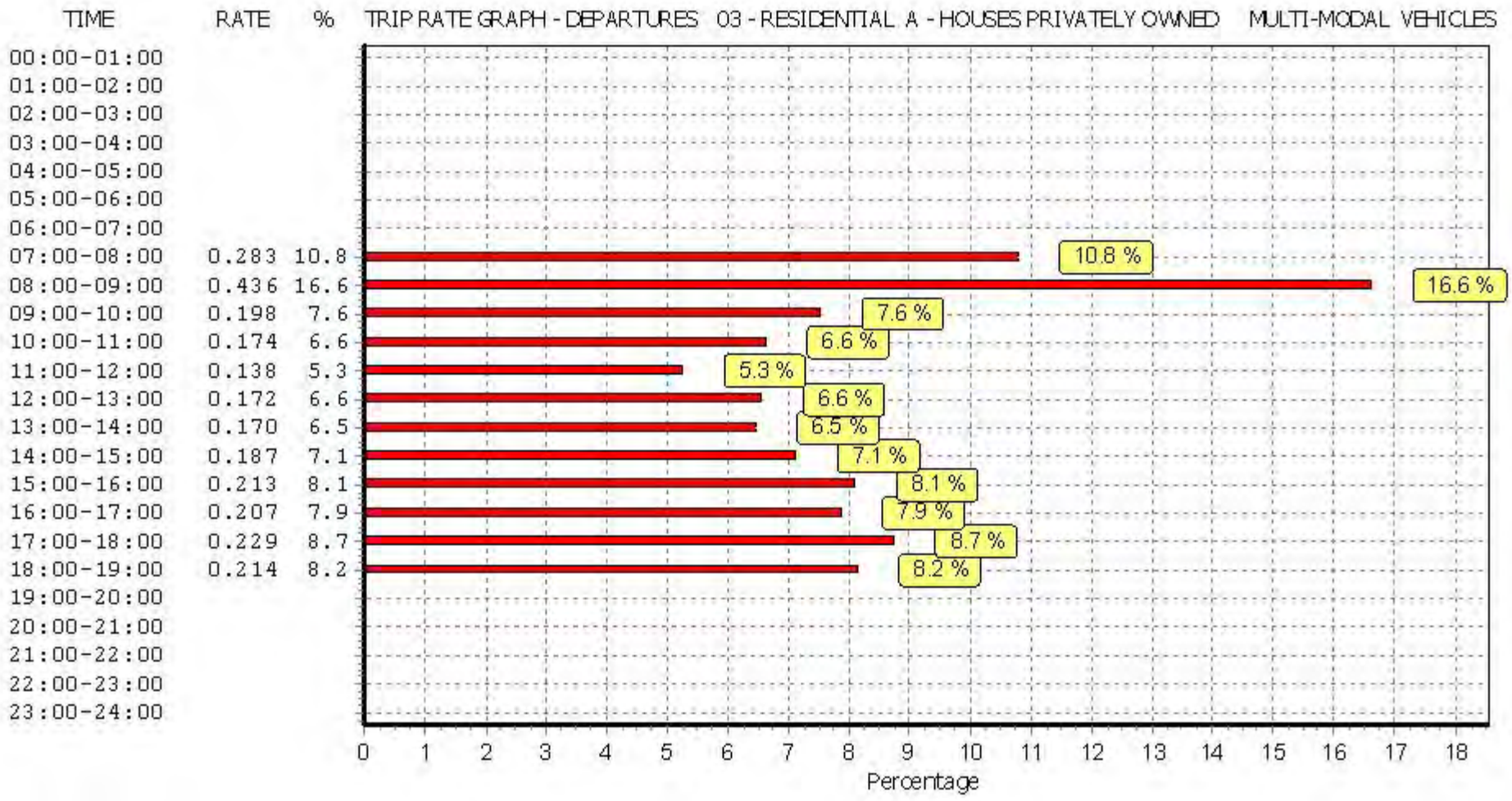

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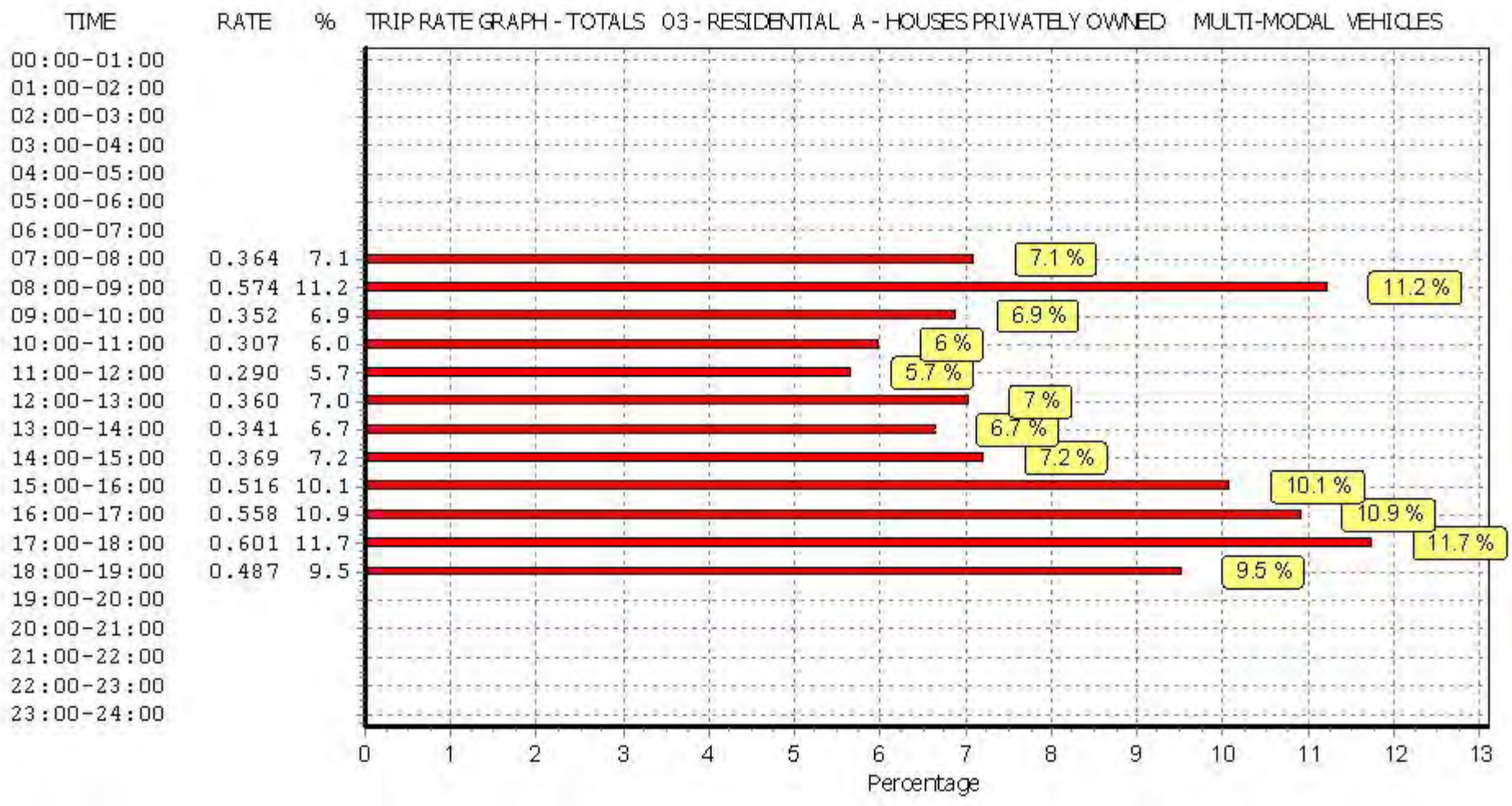

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TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TAXIS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	8	200	0.004	8	200	0.003	8	200	0.007
08:00 - 09:00	8	200	0.001	8	200	0.001	8	200	0.002
09:00 - 10:00	8	200	0.001	8	200	0.001	8	200	0.002
10:00 - 11:00	8	200	0.002	8	200	0.002	8	200	0.004
11:00 - 12:00	8	200	0.001	8	200	0.001	8	200	0.002
12:00 - 13:00	8	200	0.001	8	200	0.001	8	200	0.002
13:00 - 14:00	8	200	0.001	8	200	0.000	8	200	0.001
14:00 - 15:00	8	200	0.002	8	200	0.001	8	200	0.003
15:00 - 16:00	8	200	0.002	8	200	0.003	8	200	0.005
16:00 - 17:00	8	200	0.002	8	200	0.001	8	200	0.003
17:00 - 18:00	8	200	0.002	8	200	0.002	8	200	0.004
18:00 - 19:00	8	200	0.002	8	200	0.001	8	200	0.003
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.021			0.017			0.038

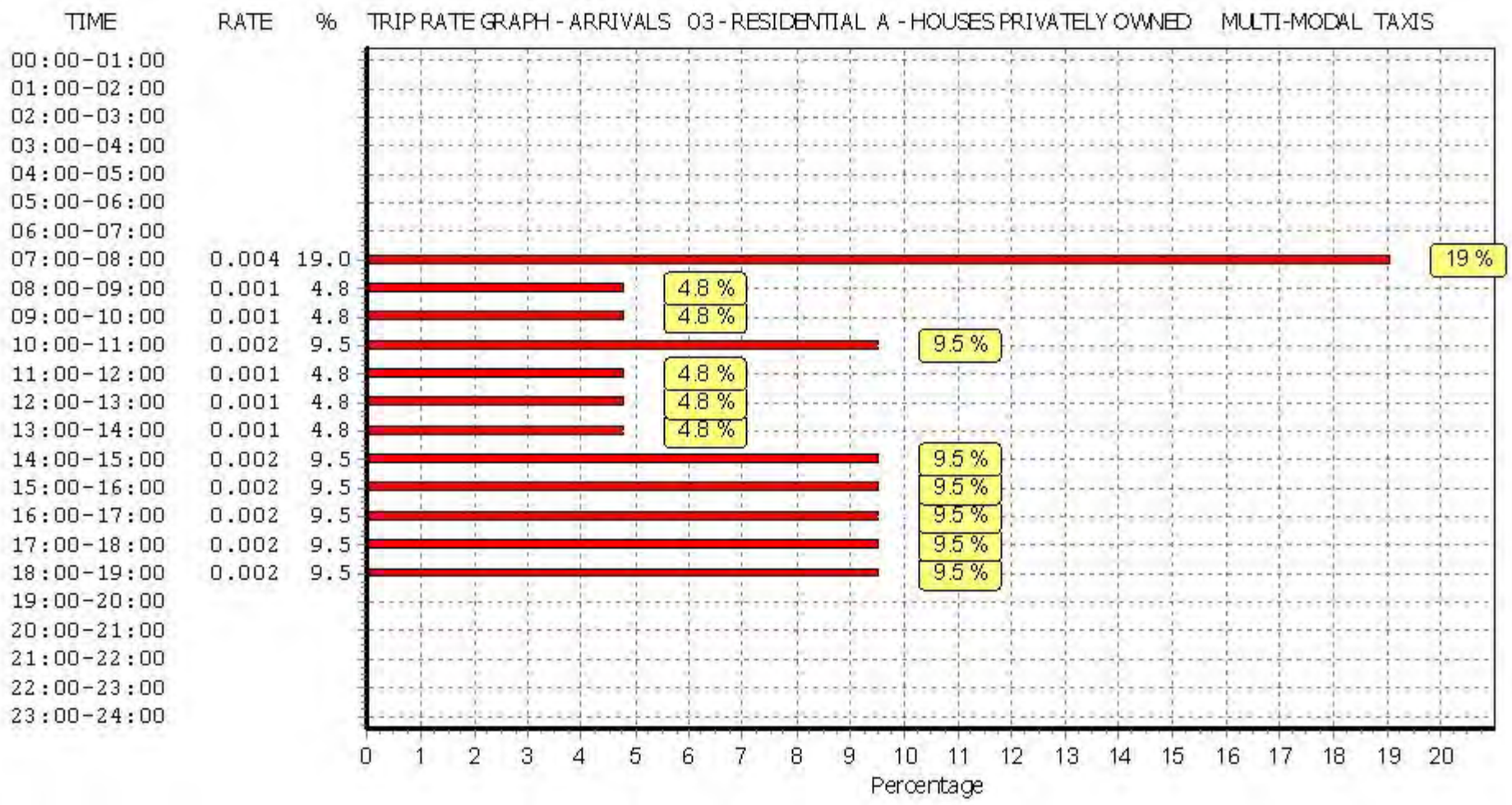
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are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

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

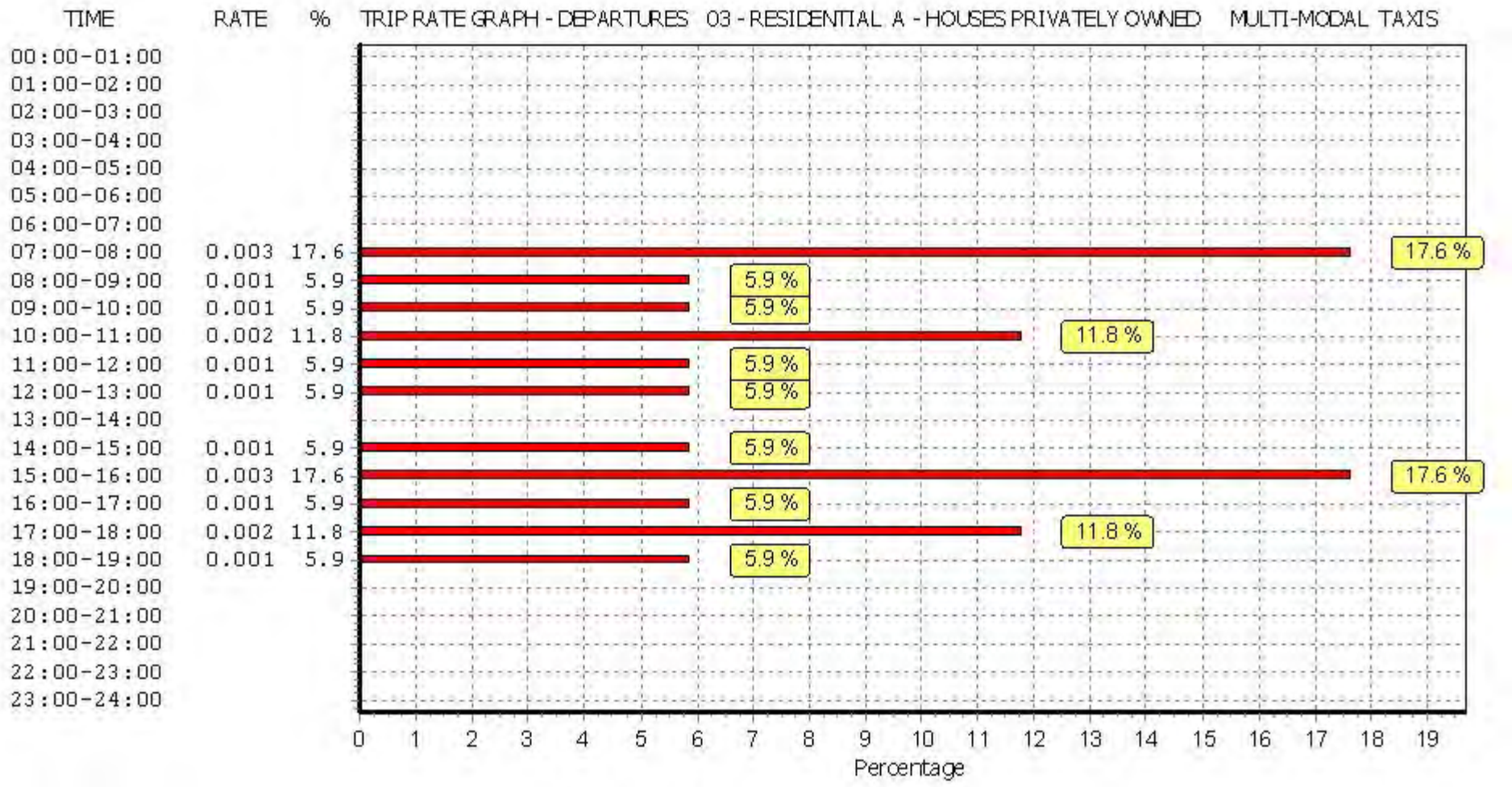
Parameter summary

Trip rate parameter range selected:	115 - 432 (units:)
Survey date date range:	01/01/07 - 11/12/14
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

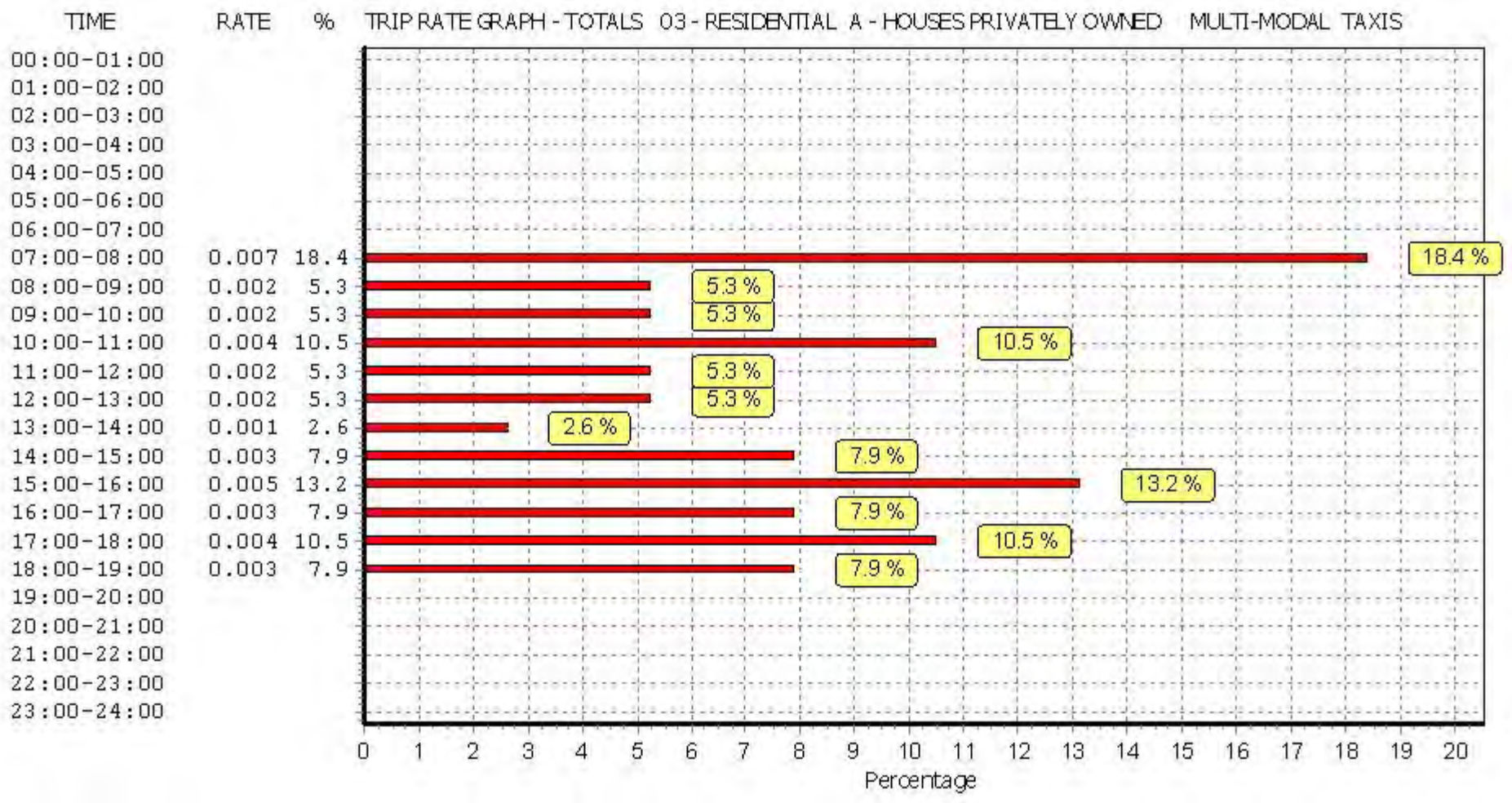
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



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 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL OGVS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	8	200	0.003	8	200	0.001	8	200	0.004
08:00 - 09:00	8	200	0.003	8	200	0.004	8	200	0.007
09:00 - 10:00	8	200	0.003	8	200	0.001	8	200	0.004
10:00 - 11:00	8	200	0.003	8	200	0.004	8	200	0.007
11:00 - 12:00	8	200	0.001	8	200	0.001	8	200	0.002
12:00 - 13:00	8	200	0.003	8	200	0.004	8	200	0.007
13:00 - 14:00	8	200	0.002	8	200	0.003	8	200	0.005
14:00 - 15:00	8	200	0.001	8	200	0.002	8	200	0.003
15:00 - 16:00	8	200	0.001	8	200	0.001	8	200	0.002
16:00 - 17:00	8	200	0.002	8	200	0.001	8	200	0.003
17:00 - 18:00	8	200	0.000	8	200	0.001	8	200	0.001
18:00 - 19:00	8	200	0.000	8	200	0.000	8	200	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.022			0.023			0.045

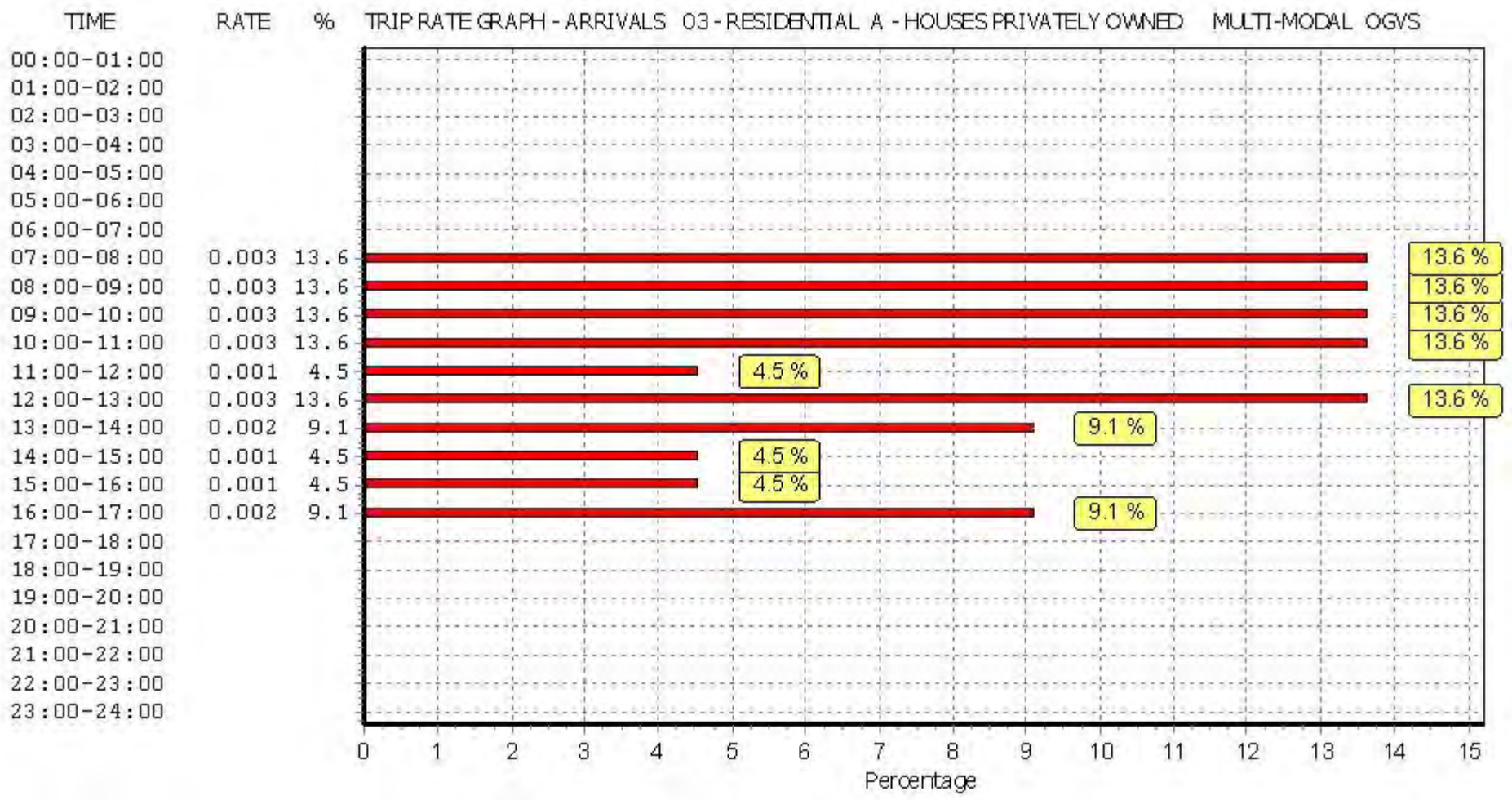
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are 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.

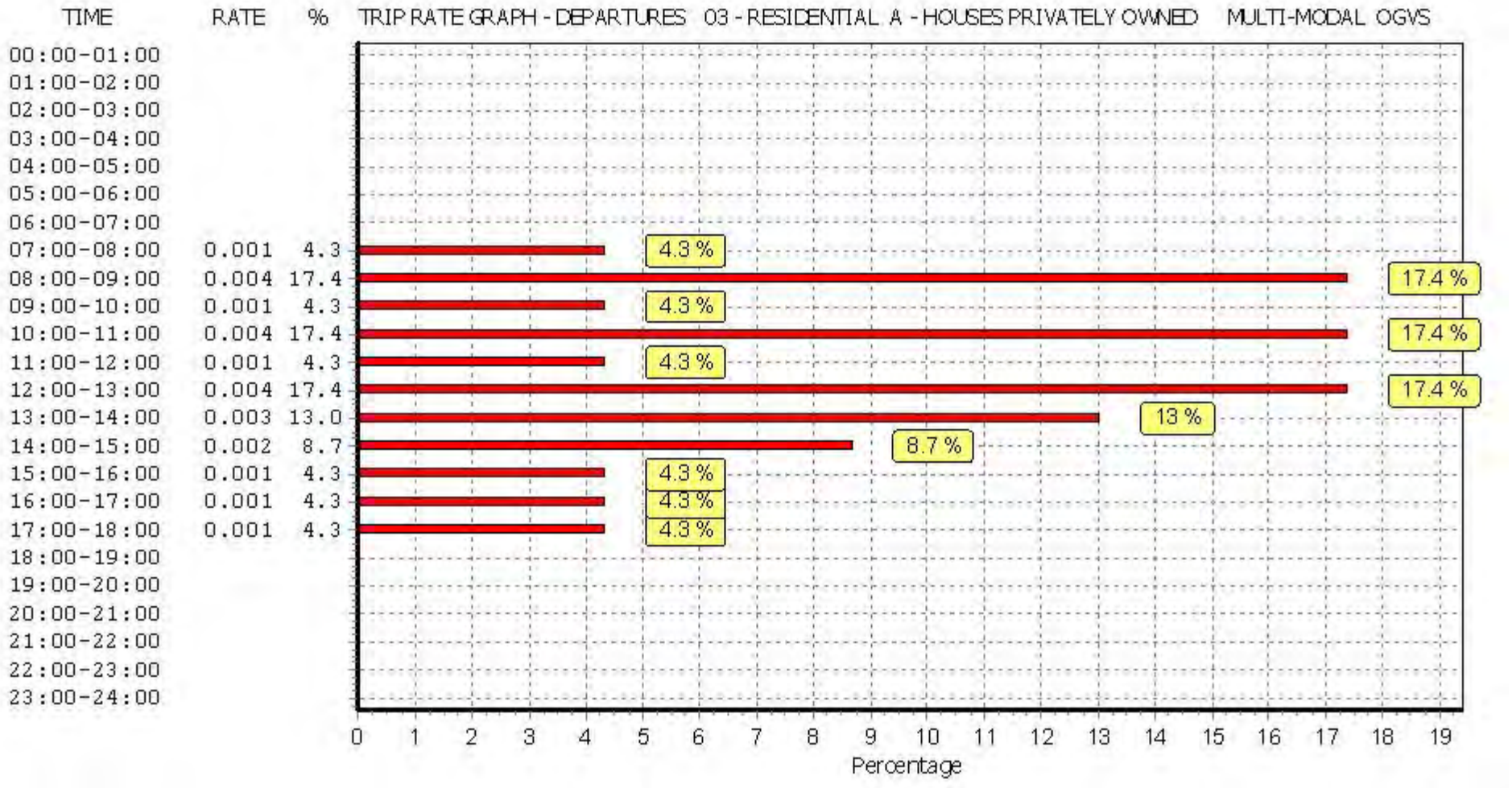
Parameter summary

Trip rate parameter range selected:	115 - 432 (units:)
Survey date date range:	01/01/07 - 11/12/14
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

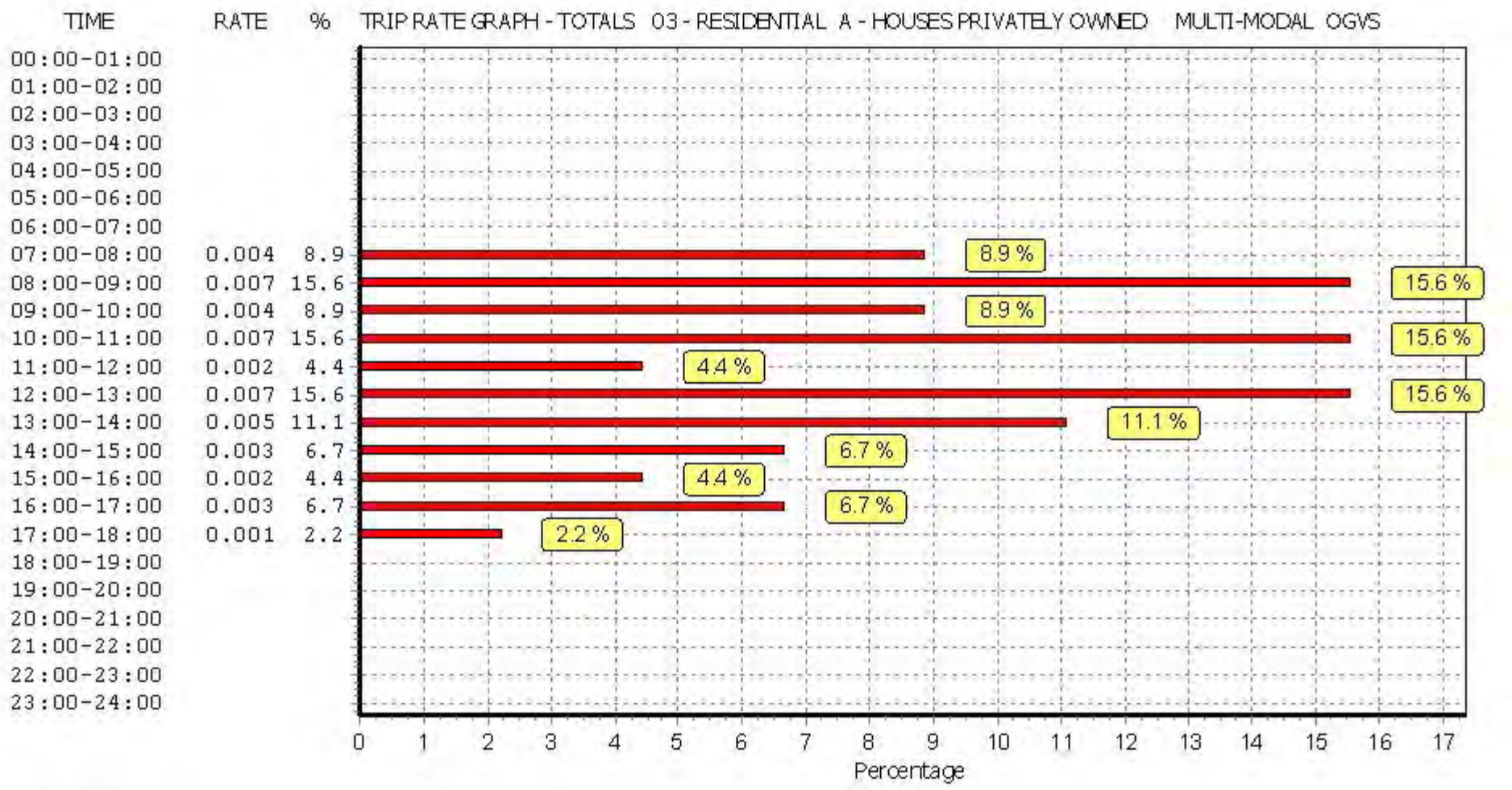
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



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 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PSVS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	8	200	0.000	8	200	0.000	8	200	0.000
08:00 - 09:00	8	200	0.002	8	200	0.002	8	200	0.004
09:00 - 10:00	8	200	0.000	8	200	0.000	8	200	0.000
10:00 - 11:00	8	200	0.000	8	200	0.000	8	200	0.000
11:00 - 12:00	8	200	0.001	8	200	0.001	8	200	0.002
12:00 - 13:00	8	200	0.000	8	200	0.000	8	200	0.000
13:00 - 14:00	8	200	0.000	8	200	0.000	8	200	0.000
14:00 - 15:00	8	200	0.001	8	200	0.000	8	200	0.001
15:00 - 16:00	8	200	0.000	8	200	0.001	8	200	0.001
16:00 - 17:00	8	200	0.000	8	200	0.000	8	200	0.000
17:00 - 18:00	8	200	0.000	8	200	0.000	8	200	0.000
18:00 - 19:00	8	200	0.001	8	200	0.001	8	200	0.002
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.005			0.005			0.010

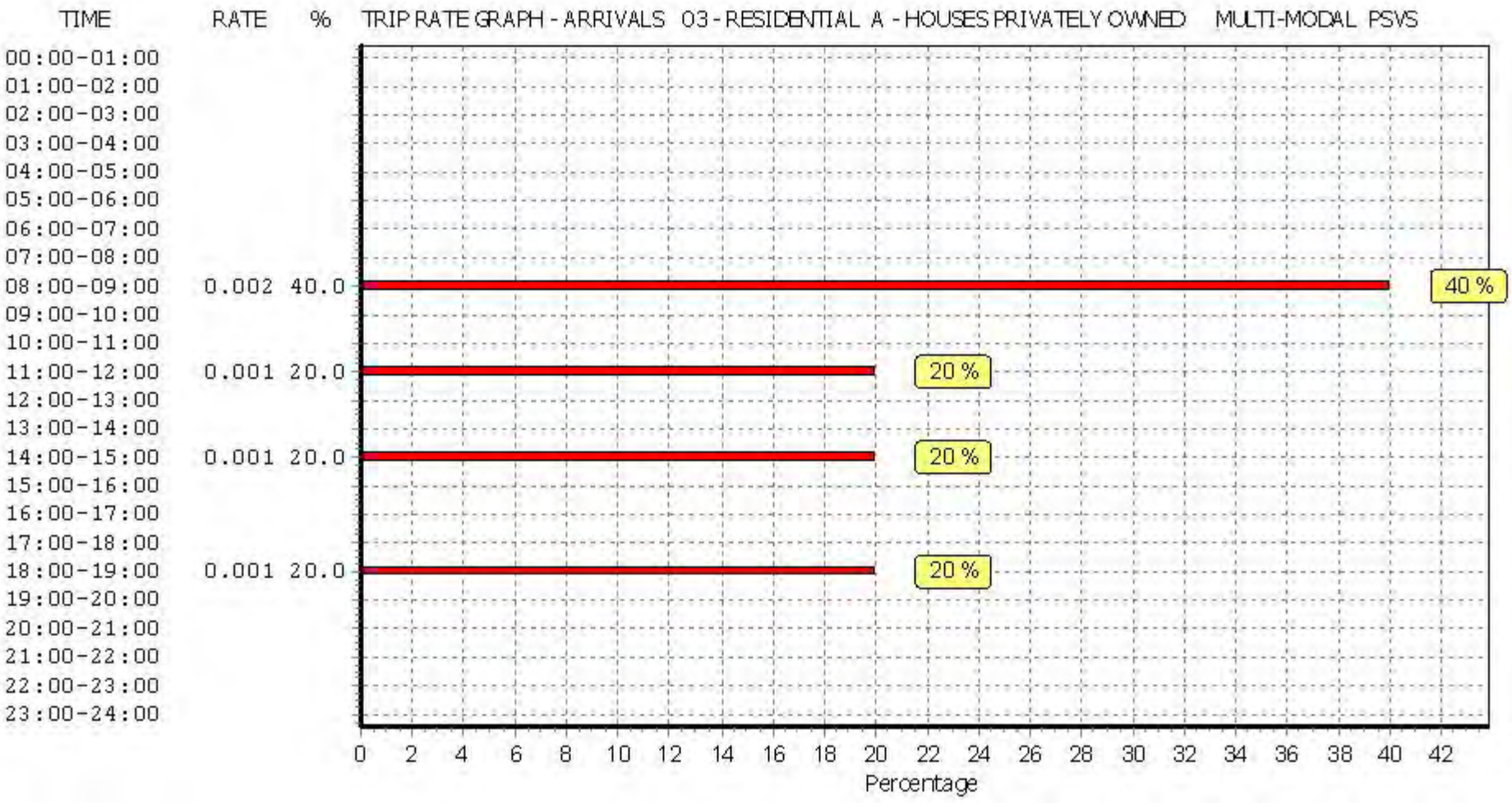
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are 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.

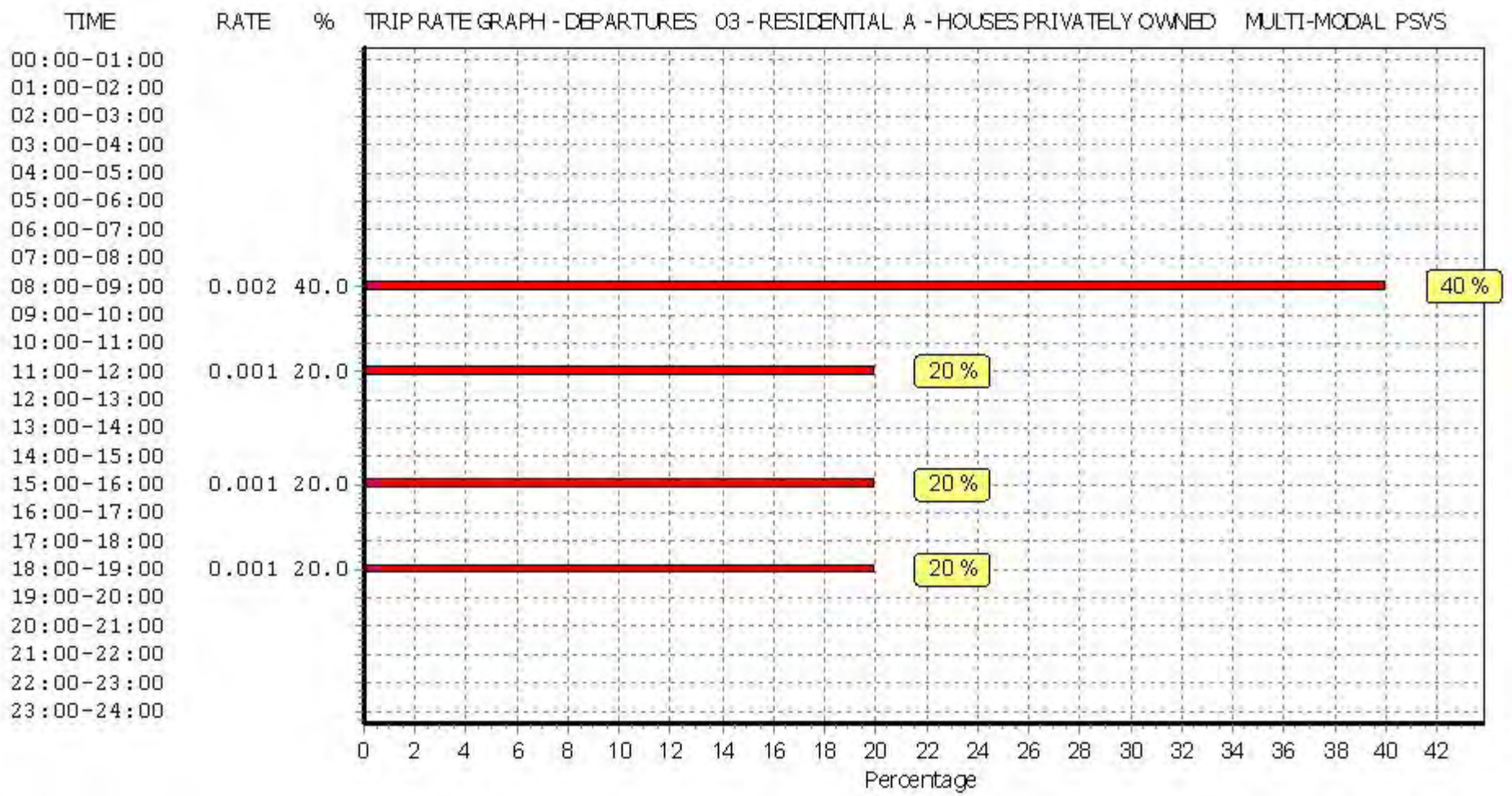
Parameter summary

Trip rate parameter range selected:	115 - 432 (units:)
Survey date date range:	01/01/07 - 11/12/14
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

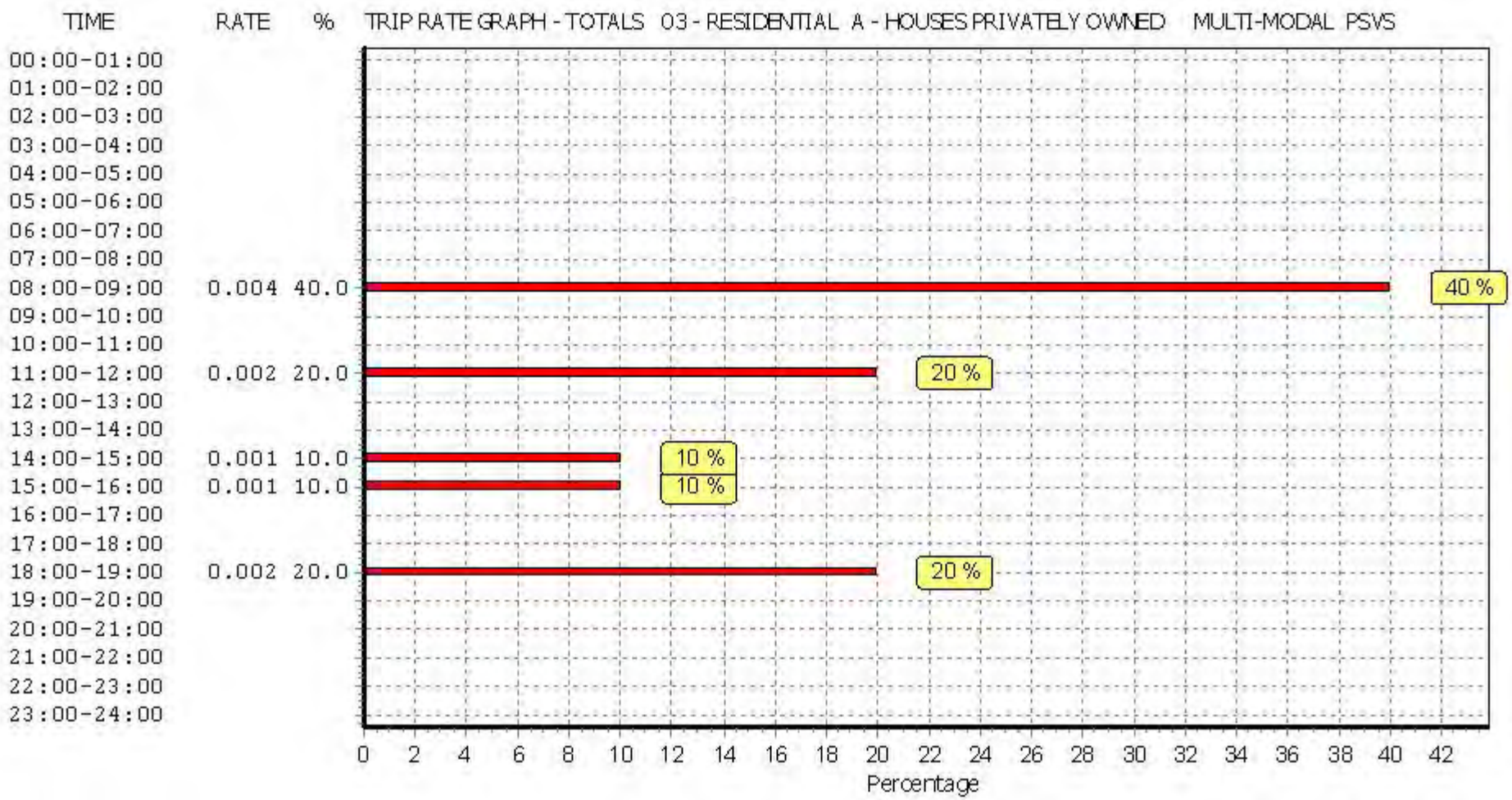
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



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 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL CYCLISTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	8	200	0.006	8	200	0.009	8	200	0.015
08:00 - 09:00	8	200	0.004	8	200	0.019	8	200	0.023
09:00 - 10:00	8	200	0.005	8	200	0.004	8	200	0.009
10:00 - 11:00	8	200	0.000	8	200	0.004	8	200	0.004
11:00 - 12:00	8	200	0.003	8	200	0.000	8	200	0.003
12:00 - 13:00	8	200	0.003	8	200	0.004	8	200	0.007
13:00 - 14:00	8	200	0.003	8	200	0.003	8	200	0.006
14:00 - 15:00	8	200	0.003	8	200	0.004	8	200	0.007
15:00 - 16:00	8	200	0.015	8	200	0.007	8	200	0.022
16:00 - 17:00	8	200	0.011	8	200	0.003	8	200	0.014
17:00 - 18:00	8	200	0.011	8	200	0.011	8	200	0.022
18:00 - 19:00	8	200	0.009	8	200	0.006	8	200	0.015
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.073			0.074			0.147

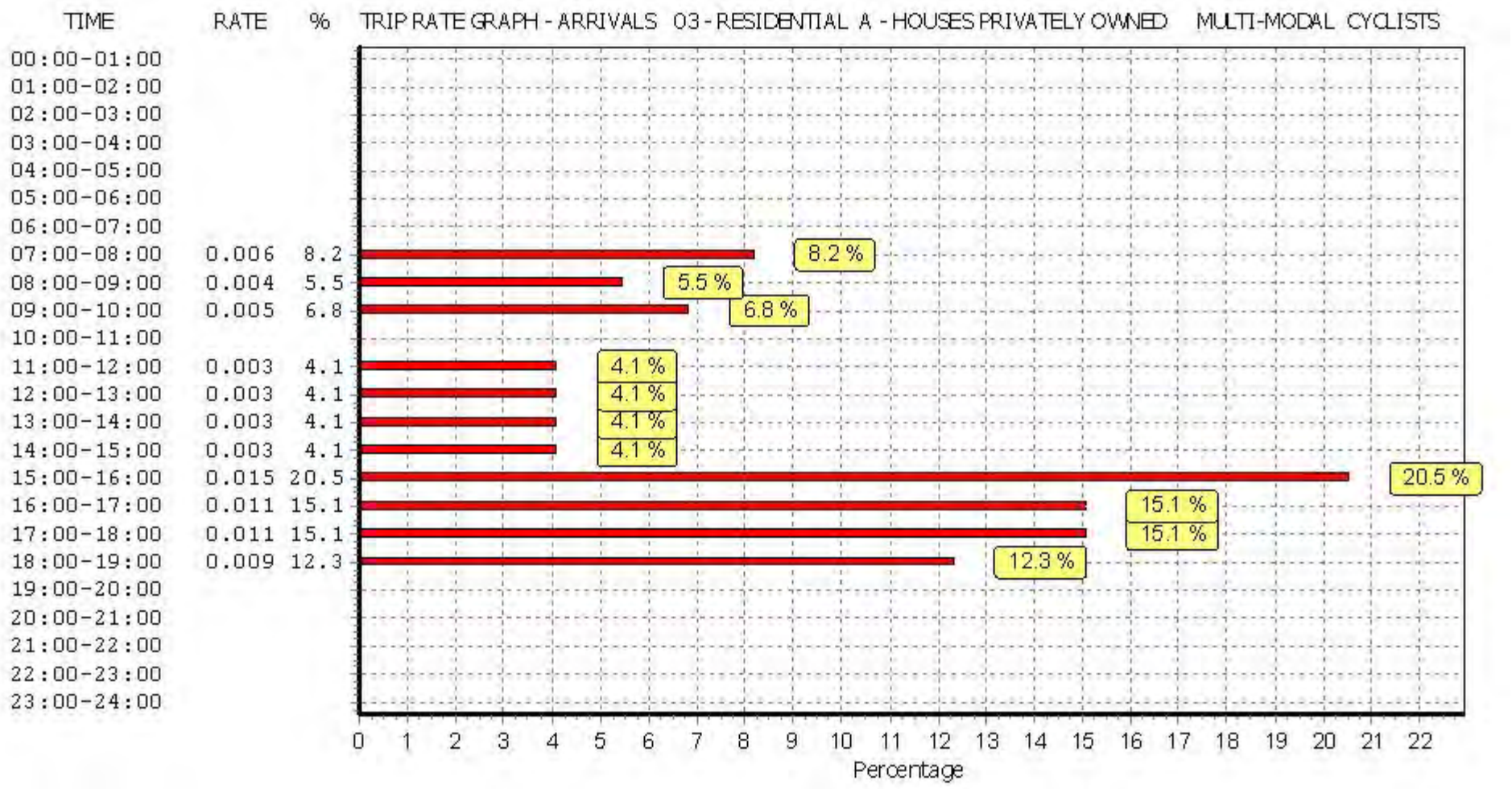
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are 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.

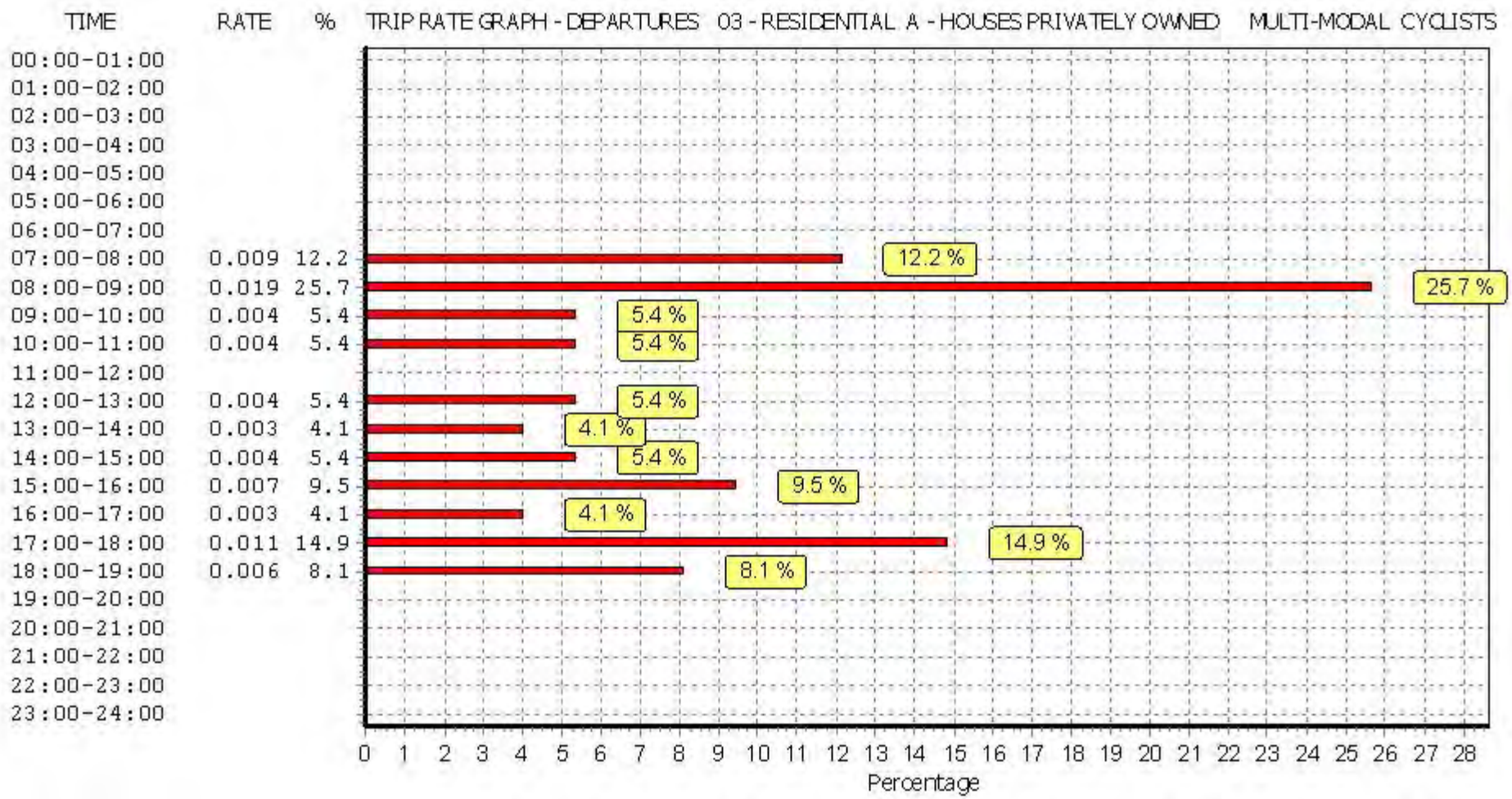
Parameter summary

Trip rate parameter range selected:	115 - 432 (units:)
Survey date date range:	01/01/07 - 11/12/14
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

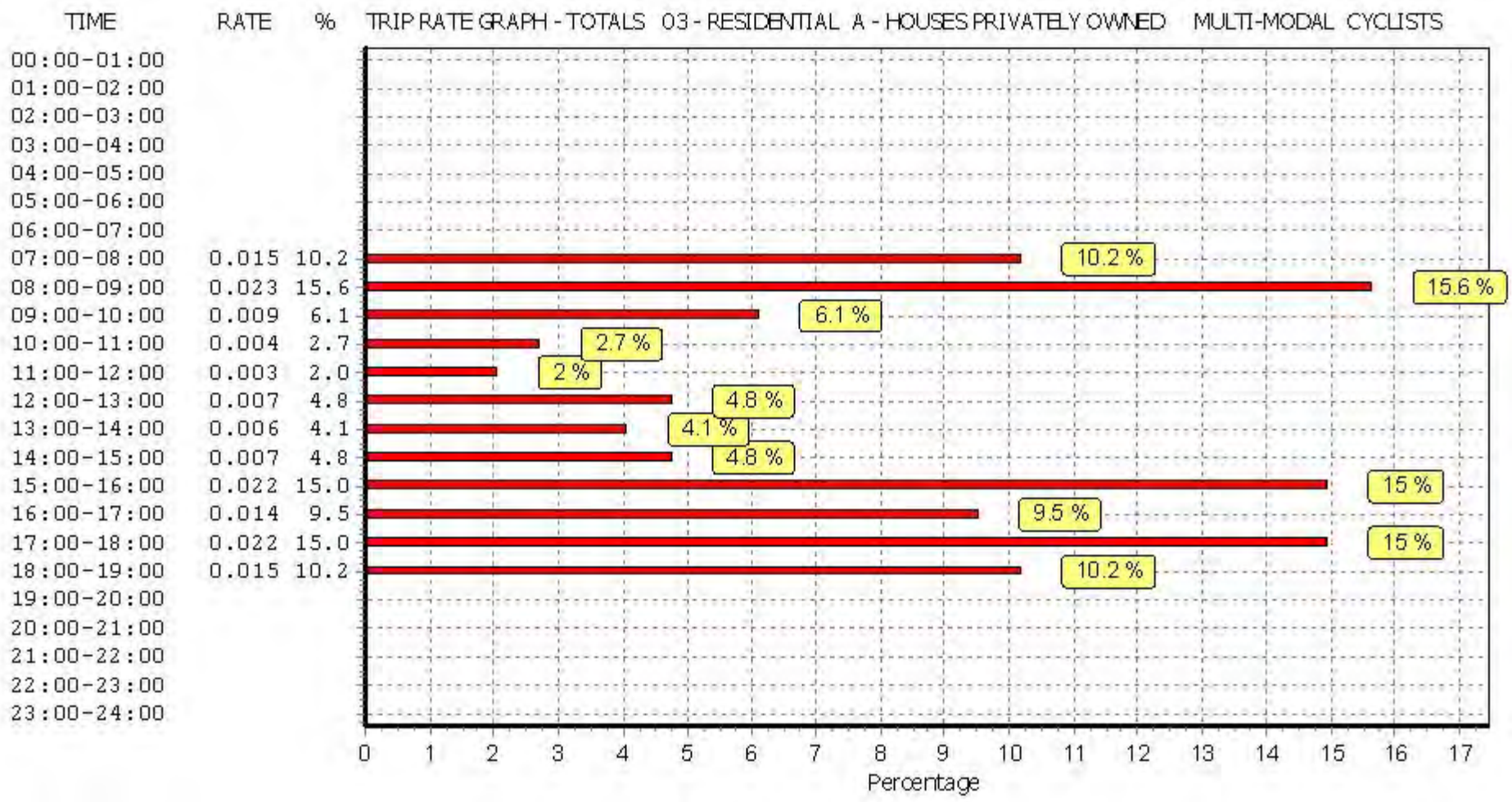
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



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 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL VEHICLE OCCUPANTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	8	200	0.095	8	200	0.343	8	200	0.438
08:00 - 09:00	8	200	0.175	8	200	0.657	8	200	0.832
09:00 - 10:00	8	200	0.178	8	200	0.266	8	200	0.444
10:00 - 11:00	8	200	0.161	8	200	0.225	8	200	0.386
11:00 - 12:00	8	200	0.185	8	200	0.179	8	200	0.364
12:00 - 13:00	8	200	0.241	8	200	0.222	8	200	0.463
13:00 - 14:00	8	200	0.208	8	200	0.224	8	200	0.432
14:00 - 15:00	8	200	0.228	8	200	0.248	8	200	0.476
15:00 - 16:00	8	200	0.481	8	200	0.301	8	200	0.782
16:00 - 17:00	8	200	0.507	8	200	0.297	8	200	0.804
17:00 - 18:00	8	200	0.494	8	200	0.316	8	200	0.810
18:00 - 19:00	8	200	0.357	8	200	0.311	8	200	0.668
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.310			3.589			6.899

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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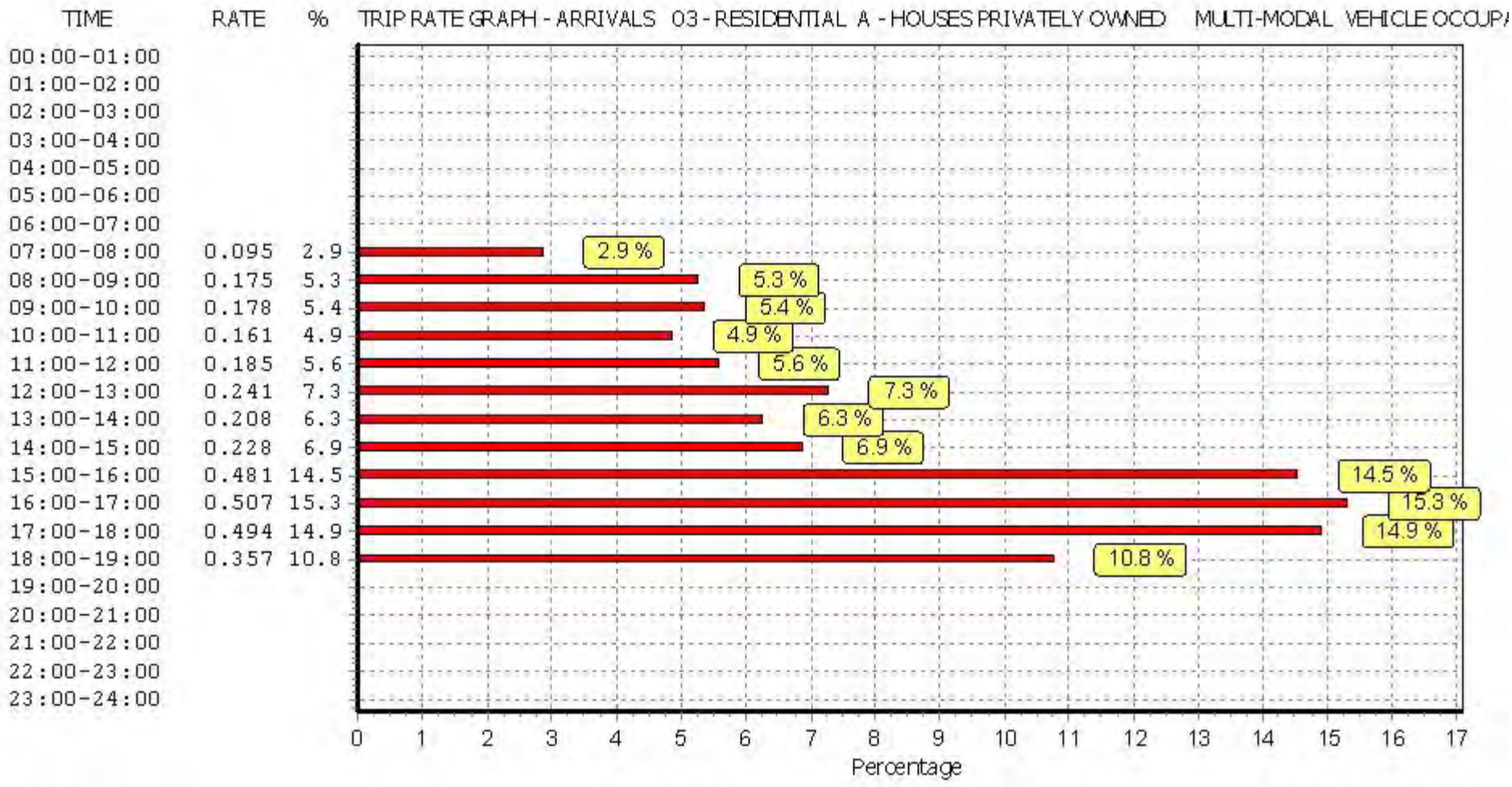
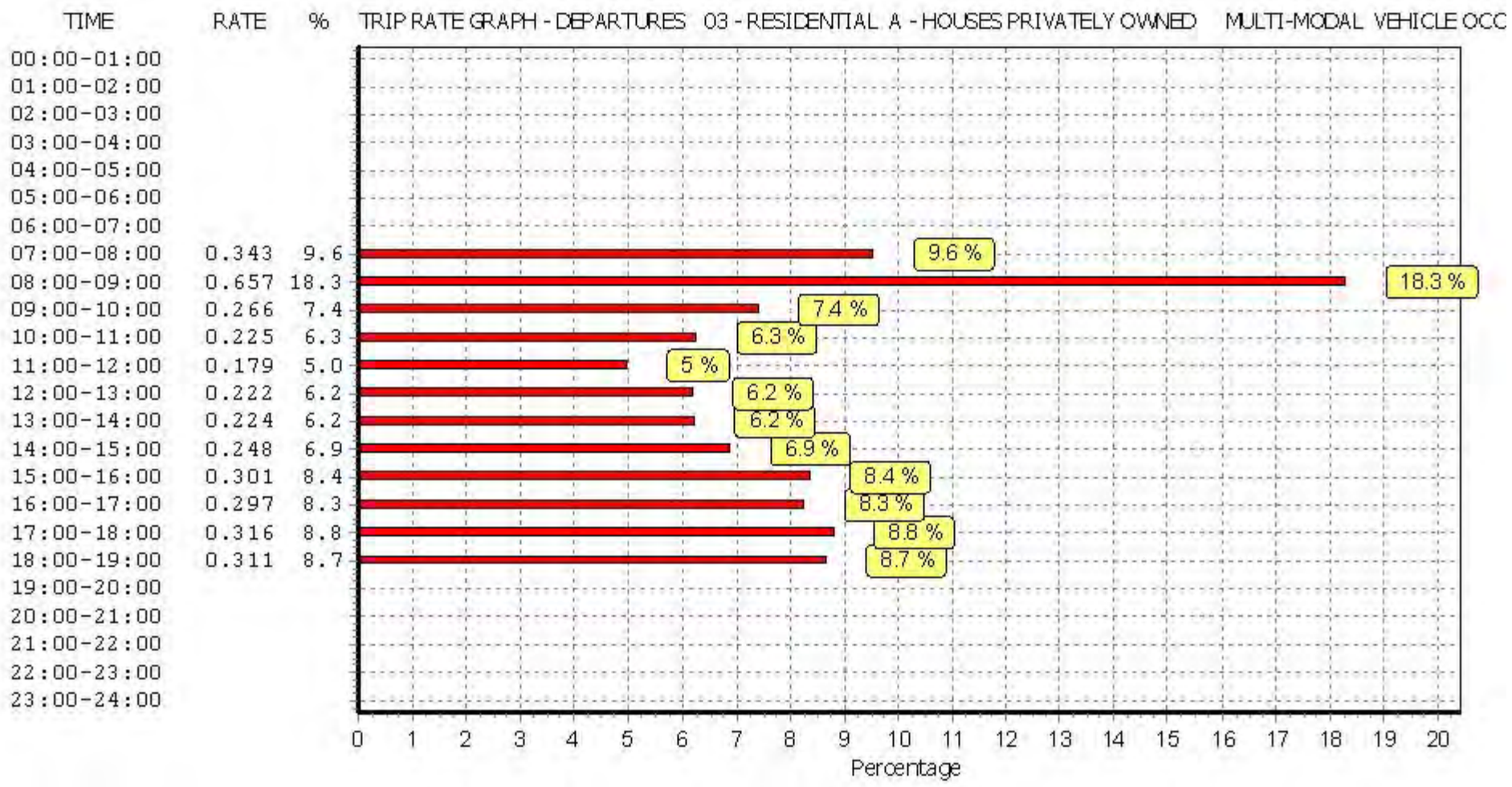
Parameter summary

Trip rate parameter range selected:	115 - 432 (units:)
Survey date date range:	01/01/07 - 11/12/14
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

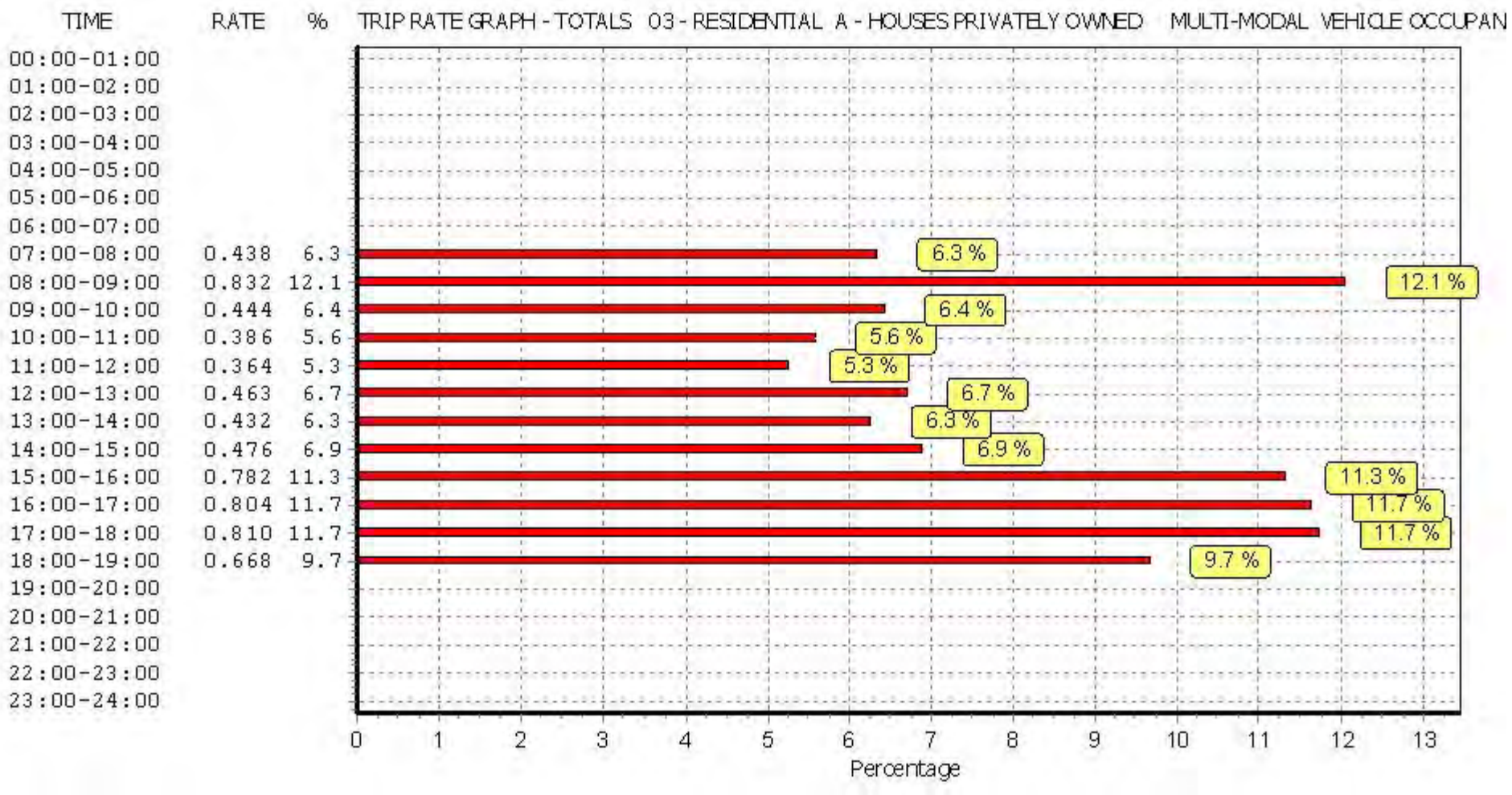
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



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 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PEDESTRIANS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	8	200	0.026	8	200	0.054	8	200	0.080
08:00 - 09:00	8	200	0.028	8	200	0.124	8	200	0.152
09:00 - 10:00	8	200	0.041	8	200	0.044	8	200	0.085
10:00 - 11:00	8	200	0.026	8	200	0.037	8	200	0.063
11:00 - 12:00	8	200	0.028	8	200	0.022	8	200	0.050
12:00 - 13:00	8	200	0.022	8	200	0.017	8	200	0.039
13:00 - 14:00	8	200	0.020	8	200	0.033	8	200	0.053
14:00 - 15:00	8	200	0.034	8	200	0.039	8	200	0.073
15:00 - 16:00	8	200	0.132	8	200	0.048	8	200	0.180
16:00 - 17:00	8	200	0.064	8	200	0.039	8	200	0.103
17:00 - 18:00	8	200	0.039	8	200	0.039	8	200	0.078
18:00 - 19:00	8	200	0.056	8	200	0.052	8	200	0.108
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.516			0.548			1.064

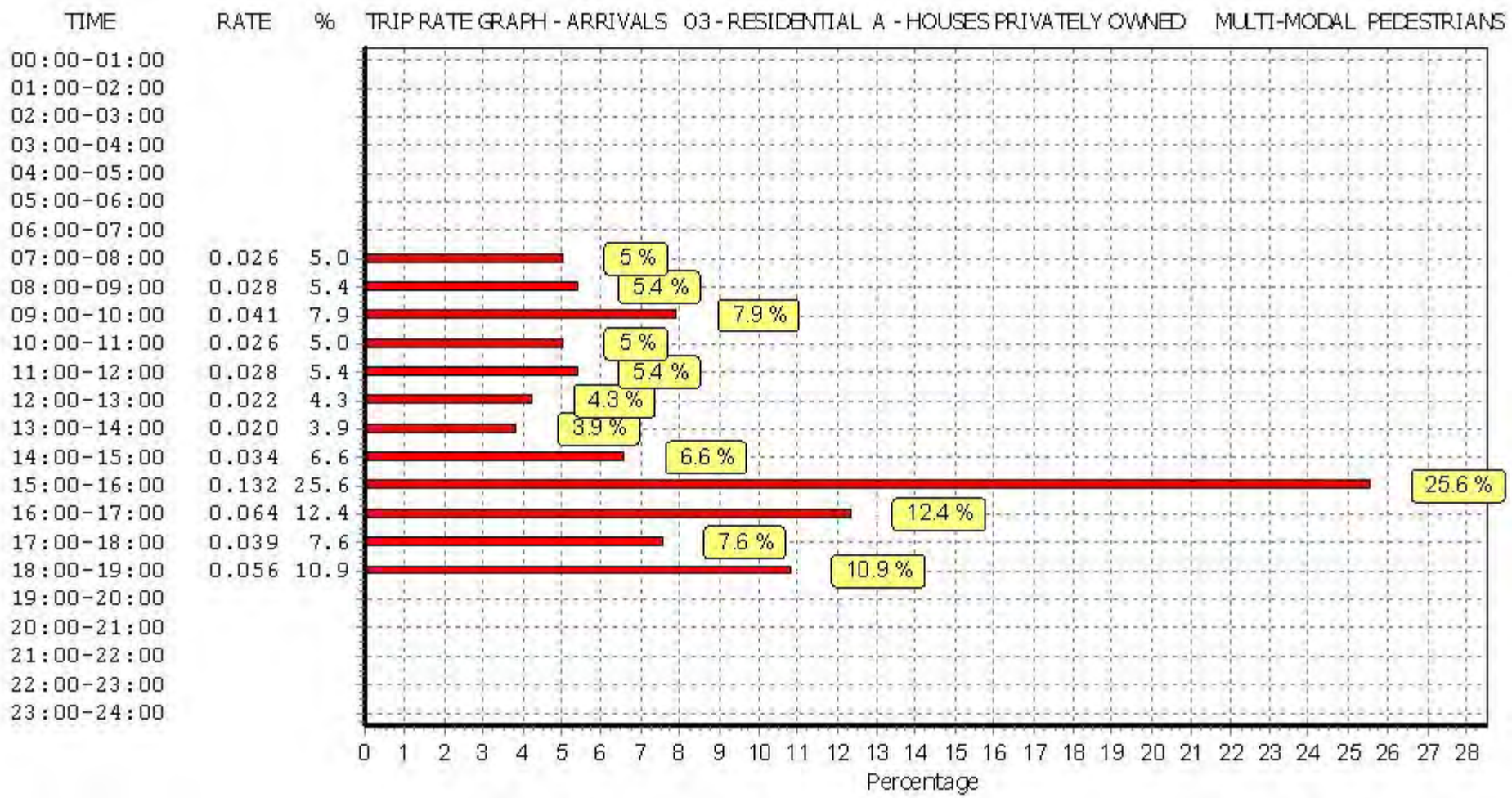
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are 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.

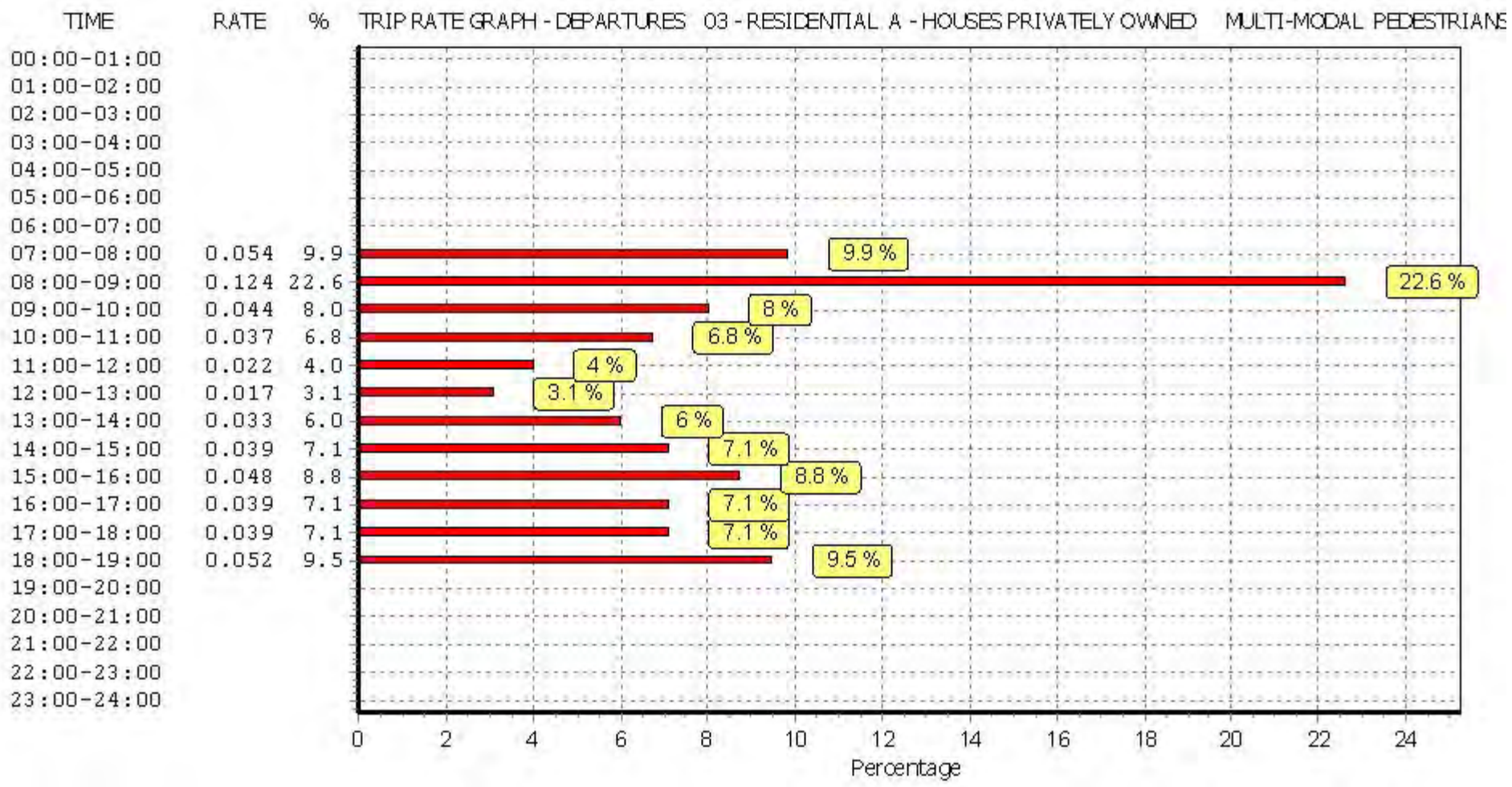
Parameter summary

Trip rate parameter range selected:	115 - 432 (units:)
Survey date date range:	01/01/07 - 11/12/14
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

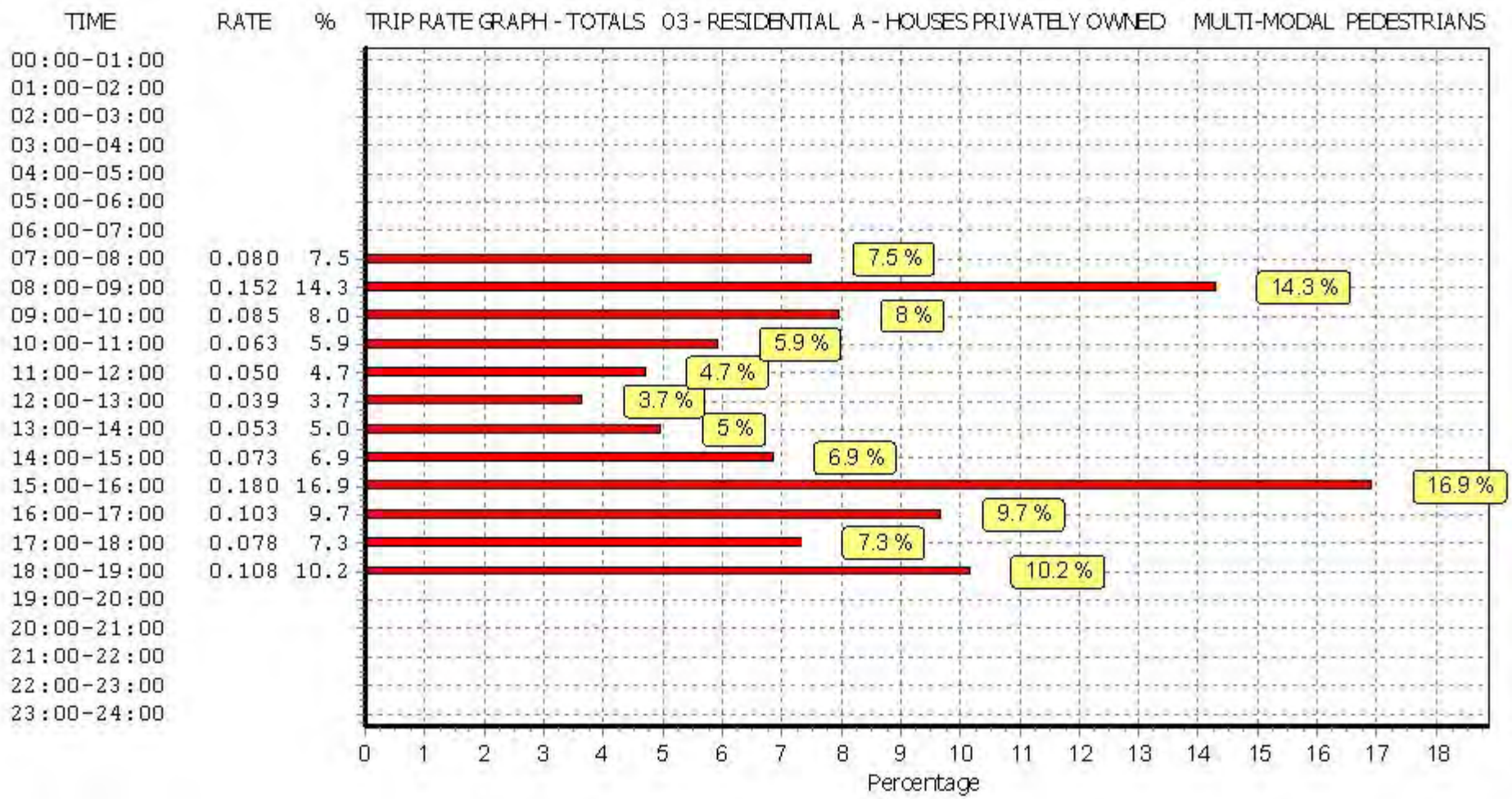
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



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 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL BUS/TRAM PASSENGERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	8	200	0.000	8	200	0.007	8	200	0.007
08:00 - 09:00	8	200	0.001	8	200	0.008	8	200	0.009
09:00 - 10:00	8	200	0.002	8	200	0.007	8	200	0.009
10:00 - 11:00	8	200	0.003	8	200	0.003	8	200	0.006
11:00 - 12:00	8	200	0.003	8	200	0.005	8	200	0.008
12:00 - 13:00	8	200	0.007	8	200	0.004	8	200	0.011
13:00 - 14:00	8	200	0.009	8	200	0.004	8	200	0.013
14:00 - 15:00	8	200	0.002	8	200	0.003	8	200	0.005
15:00 - 16:00	8	200	0.005	8	200	0.001	8	200	0.006
16:00 - 17:00	8	200	0.004	8	200	0.001	8	200	0.005
17:00 - 18:00	8	200	0.009	8	200	0.001	8	200	0.010
18:00 - 19:00	8	200	0.006	8	200	0.000	8	200	0.006
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.051			0.044			0.095

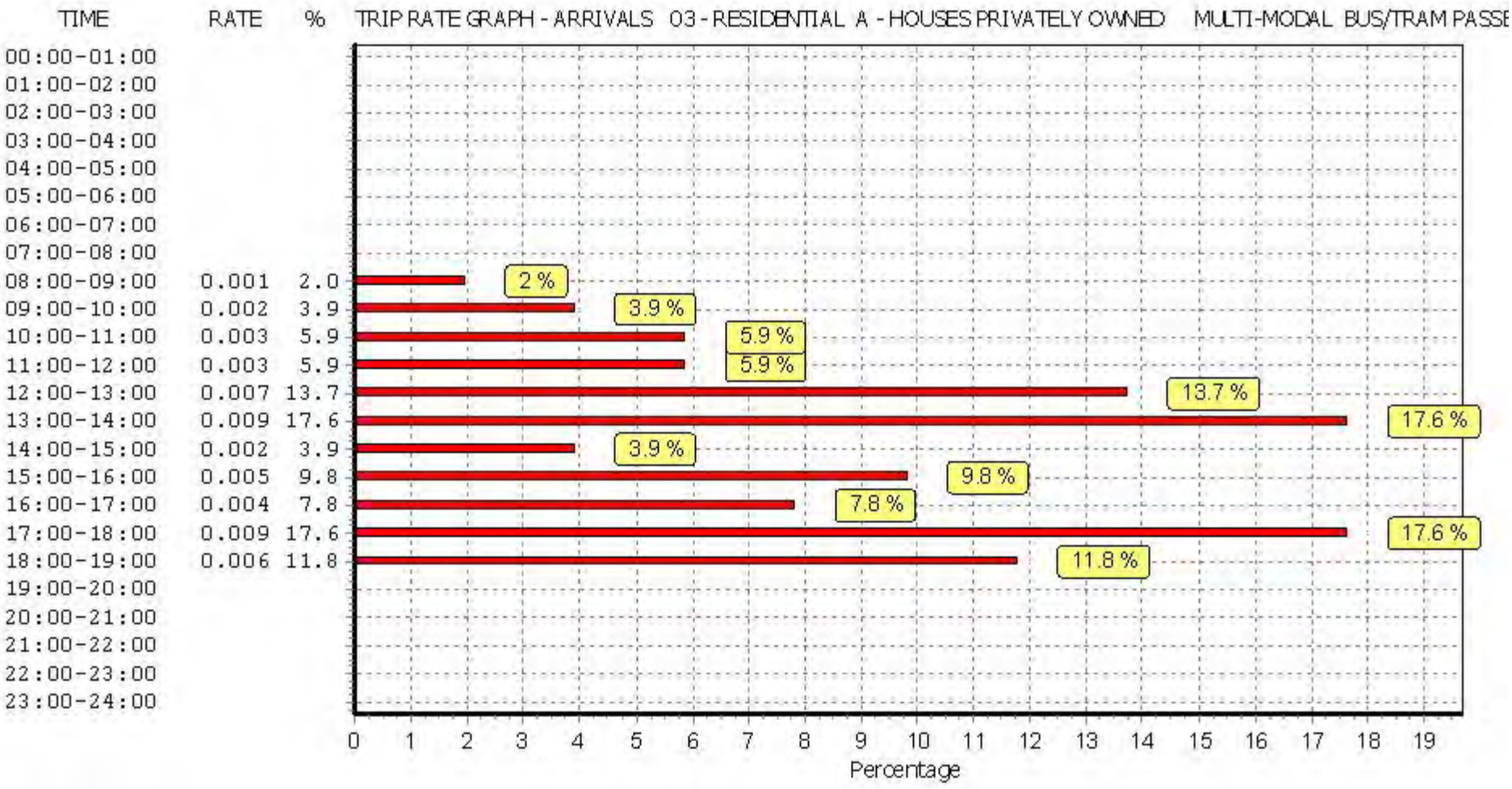
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are 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.

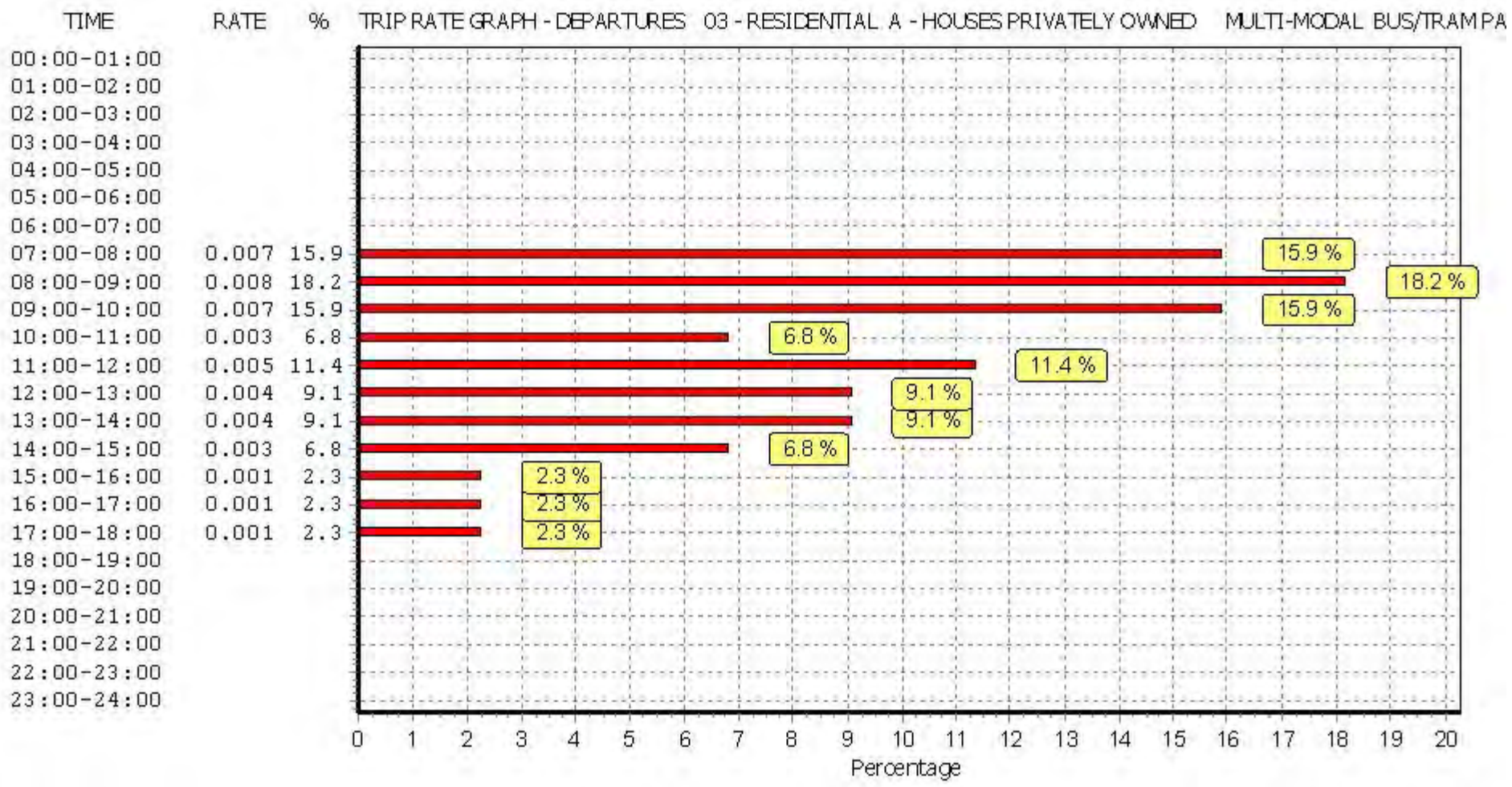
Parameter summary

Trip rate parameter range selected:	115 - 432 (units:)
Survey date date range:	01/01/07 - 11/12/14
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

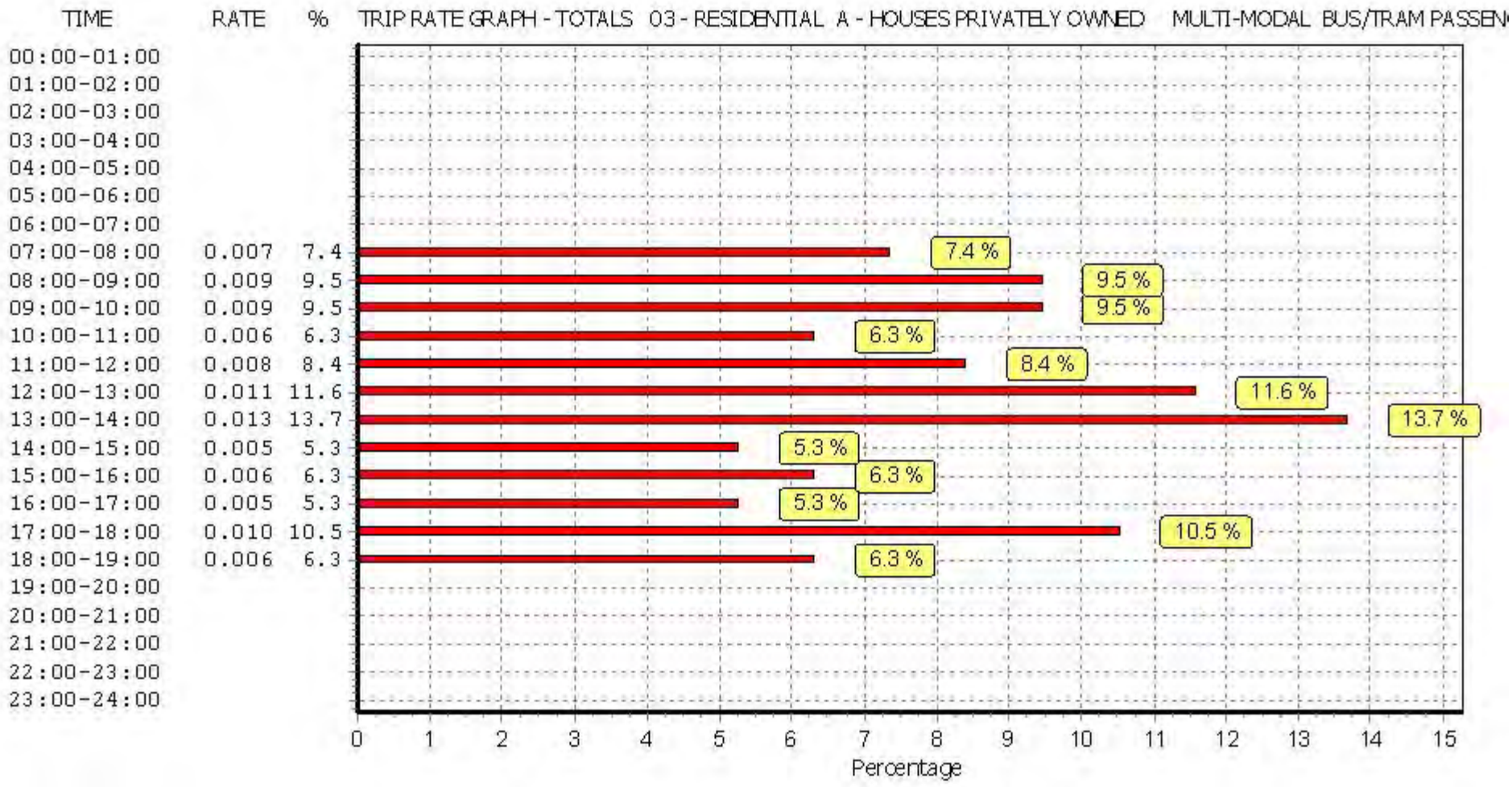
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



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 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL RAIL PASSENGERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	8	200	0.000	8	200	0.000	8	200	0.000
08:00 - 09:00	8	200	0.000	8	200	0.001	8	200	0.001
09:00 - 10:00	8	200	0.000	8	200	0.001	8	200	0.001
10:00 - 11:00	8	200	0.000	8	200	0.000	8	200	0.000
11:00 - 12:00	8	200	0.000	8	200	0.000	8	200	0.000
12:00 - 13:00	8	200	0.000	8	200	0.000	8	200	0.000
13:00 - 14:00	8	200	0.000	8	200	0.000	8	200	0.000
14:00 - 15:00	8	200	0.000	8	200	0.000	8	200	0.000
15:00 - 16:00	8	200	0.001	8	200	0.000	8	200	0.001
16:00 - 17:00	8	200	0.000	8	200	0.000	8	200	0.000
17:00 - 18:00	8	200	0.000	8	200	0.000	8	200	0.000
18:00 - 19:00	8	200	0.000	8	200	0.000	8	200	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.001			0.002			0.003

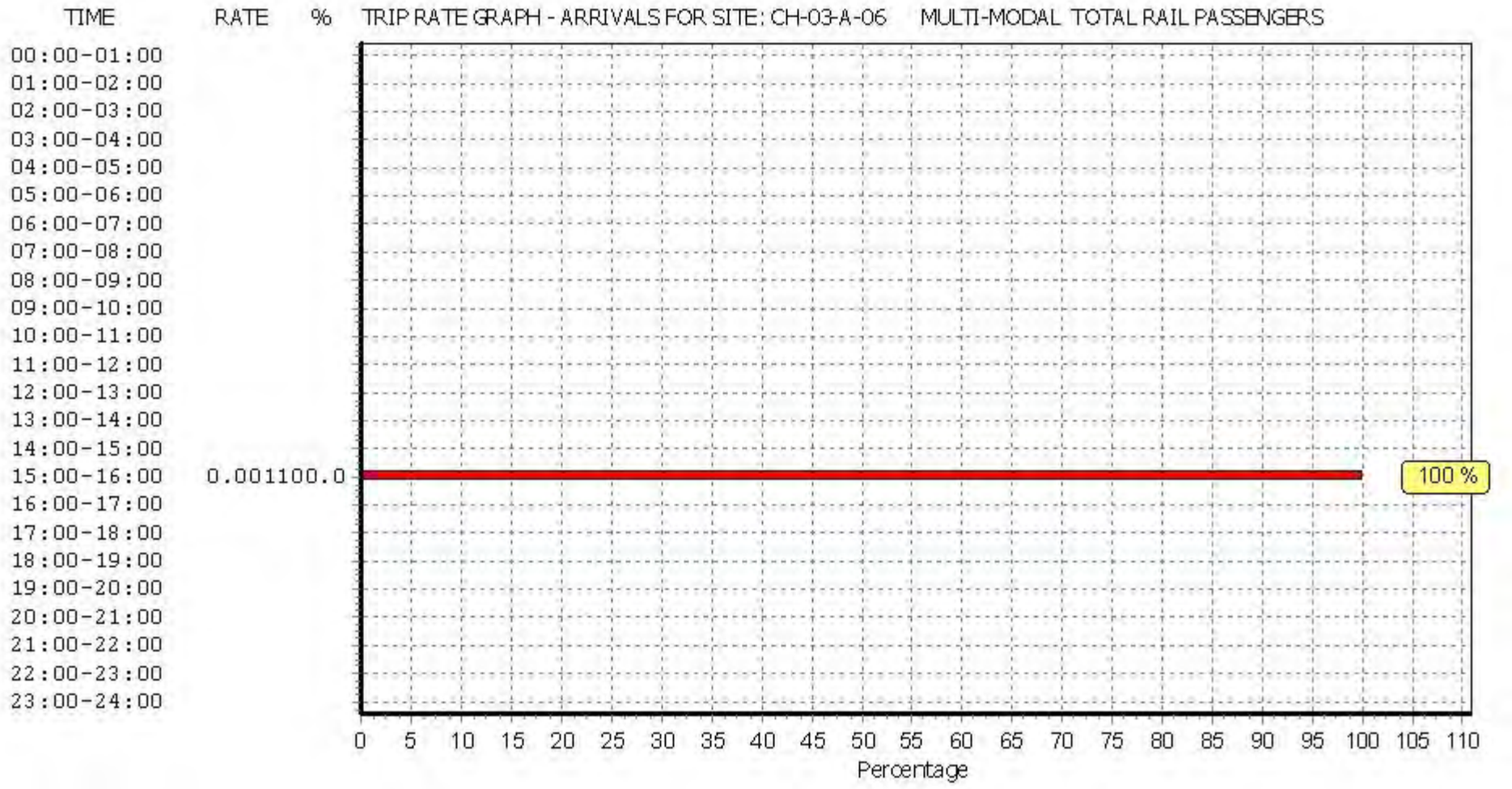
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are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

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

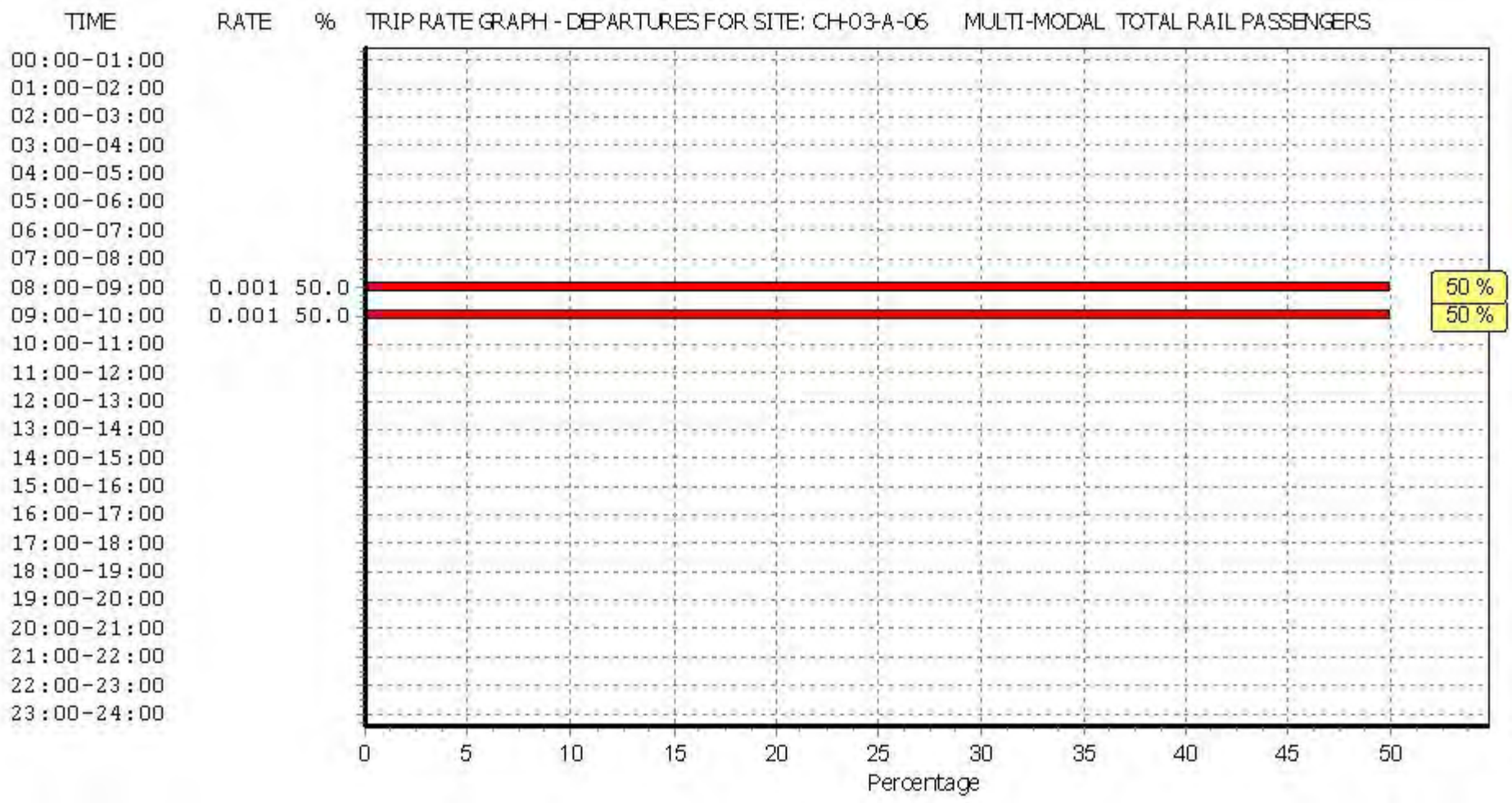
Parameter summary

Trip rate parameter range selected:	115 - 432 (units:)
Survey date date range:	01/01/07 - 11/12/14
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

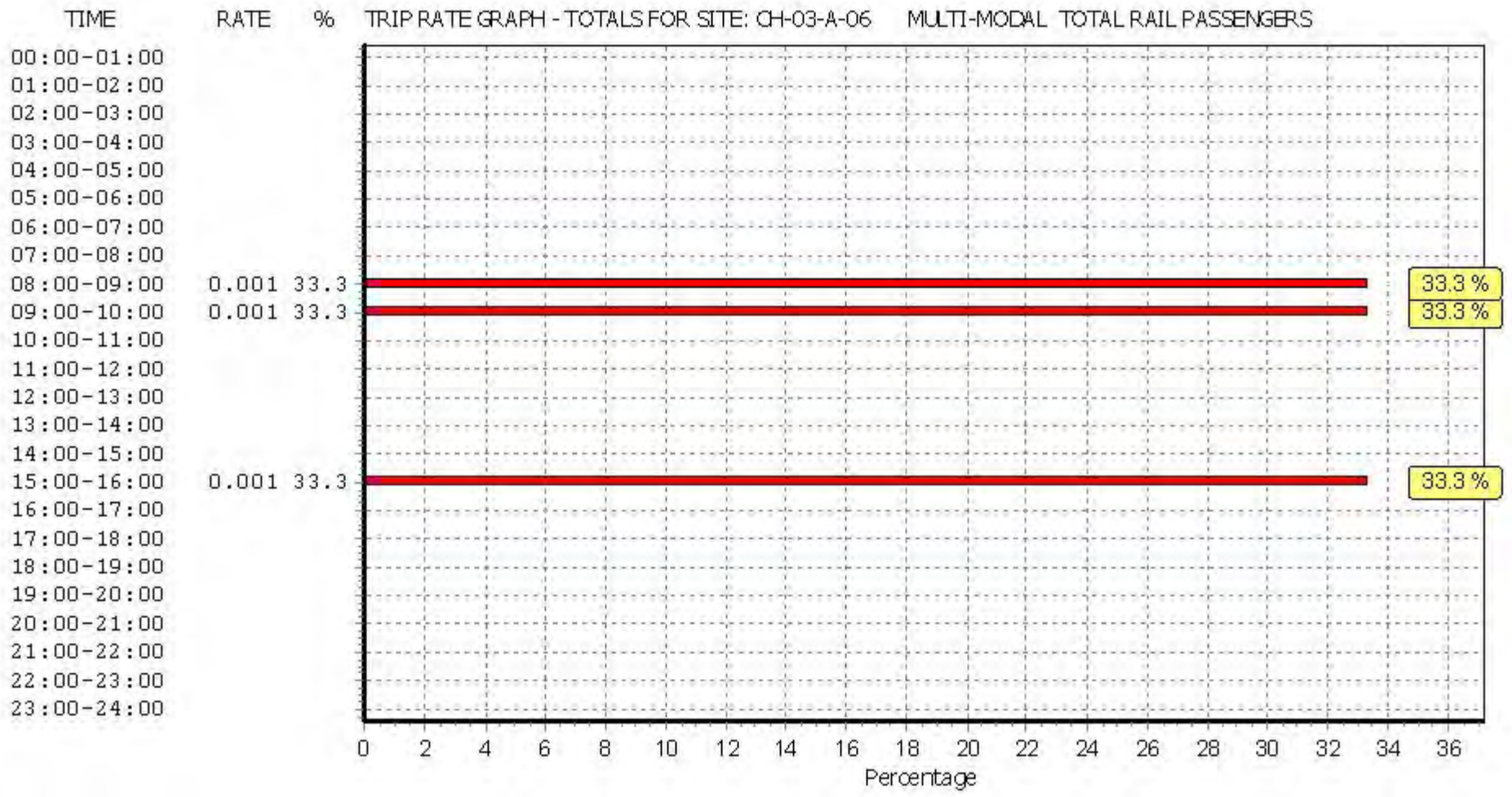
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



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 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL COACH PASSENGERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	8	200	0.000	8	200	0.000	8	200	0.000
08:00 - 09:00	8	200	0.001	8	200	0.005	8	200	0.006
09:00 - 10:00	8	200	0.000	8	200	0.000	8	200	0.000
10:00 - 11:00	8	200	0.000	8	200	0.000	8	200	0.000
11:00 - 12:00	8	200	0.003	8	200	0.001	8	200	0.004
12:00 - 13:00	8	200	0.000	8	200	0.000	8	200	0.000
13:00 - 14:00	8	200	0.000	8	200	0.000	8	200	0.000
14:00 - 15:00	8	200	0.001	8	200	0.000	8	200	0.001
15:00 - 16:00	8	200	0.000	8	200	0.000	8	200	0.000
16:00 - 17:00	8	200	0.000	8	200	0.000	8	200	0.000
17:00 - 18:00	8	200	0.000	8	200	0.000	8	200	0.000
18:00 - 19:00	8	200	0.001	8	200	0.000	8	200	0.001
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.006			0.006			0.012

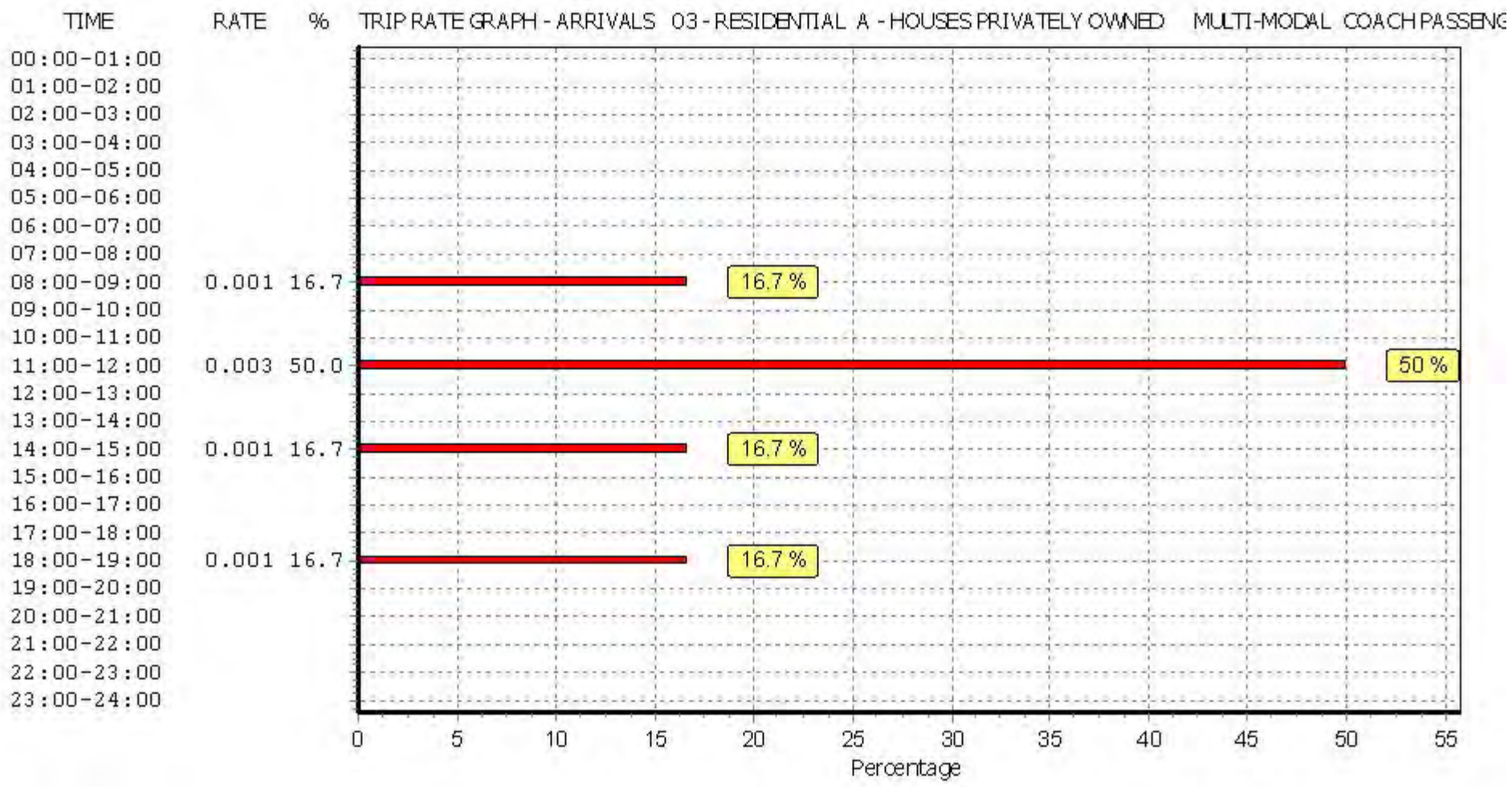
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are 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.

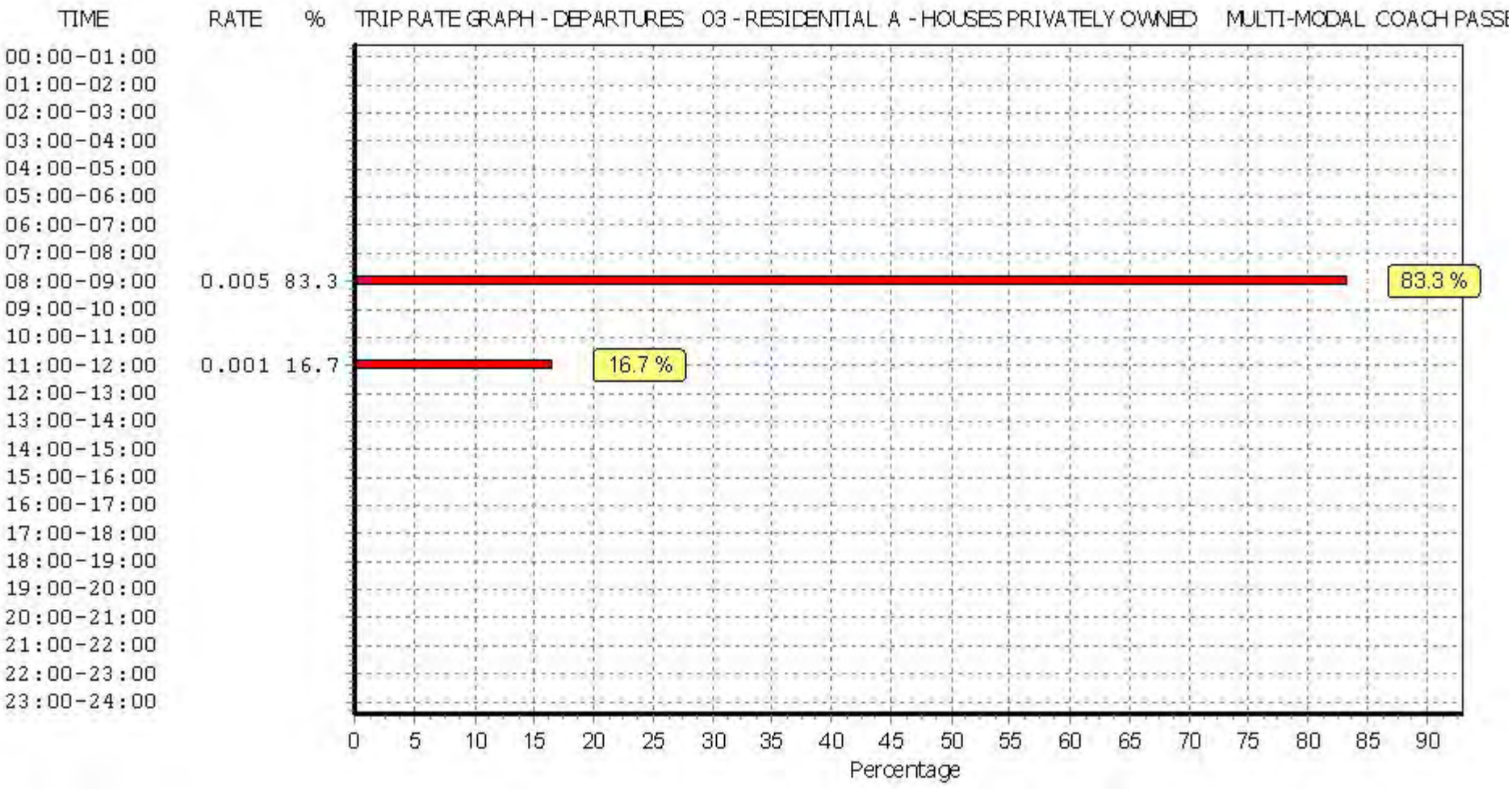
Parameter summary

Trip rate parameter range selected:	115 - 432 (units:)
Survey date date range:	01/01/07 - 11/12/14
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

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



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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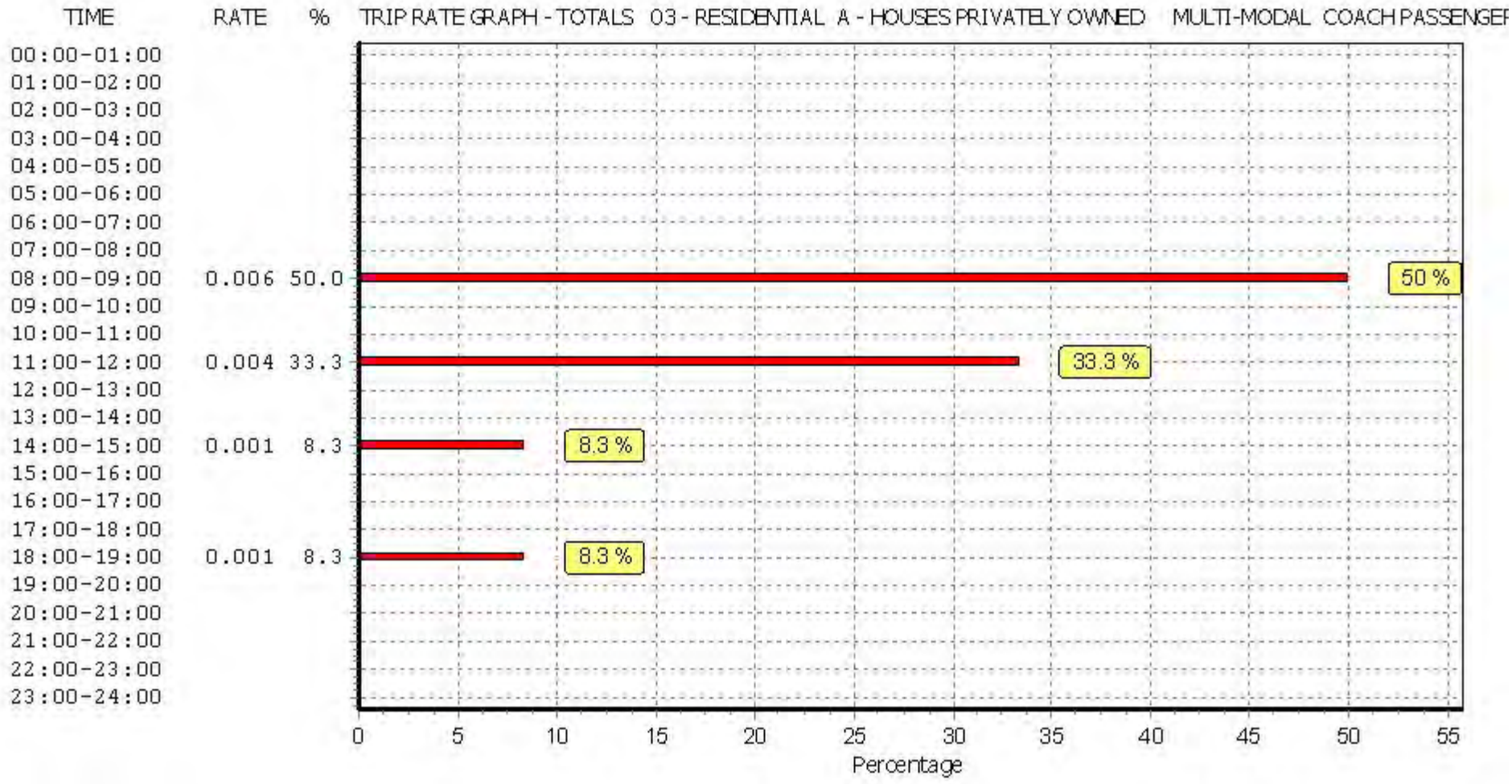

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TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	8	200	0.000	8	200	0.007	8	200	0.007
08:00 - 09:00	8	200	0.001	8	200	0.014	8	200	0.015
09:00 - 10:00	8	200	0.002	8	200	0.008	8	200	0.010
10:00 - 11:00	8	200	0.003	8	200	0.003	8	200	0.006
11:00 - 12:00	8	200	0.006	8	200	0.006	8	200	0.012
12:00 - 13:00	8	200	0.007	8	200	0.004	8	200	0.011
13:00 - 14:00	8	200	0.009	8	200	0.004	8	200	0.013
14:00 - 15:00	8	200	0.003	8	200	0.003	8	200	0.006
15:00 - 16:00	8	200	0.006	8	200	0.001	8	200	0.007
16:00 - 17:00	8	200	0.004	8	200	0.001	8	200	0.005
17:00 - 18:00	8	200	0.009	8	200	0.001	8	200	0.010
18:00 - 19:00	8	200	0.007	8	200	0.000	8	200	0.007
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.057			0.052			0.109

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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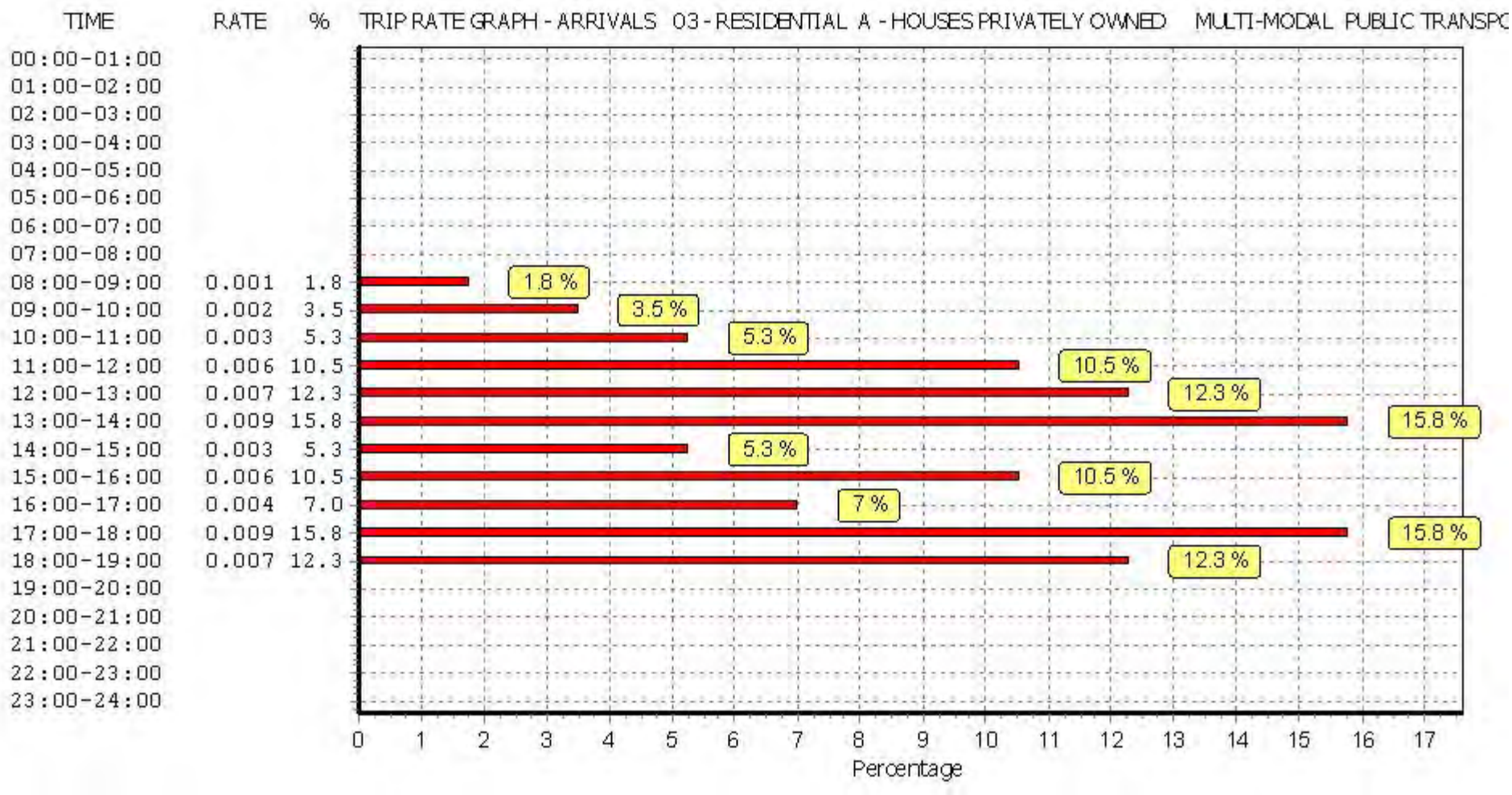
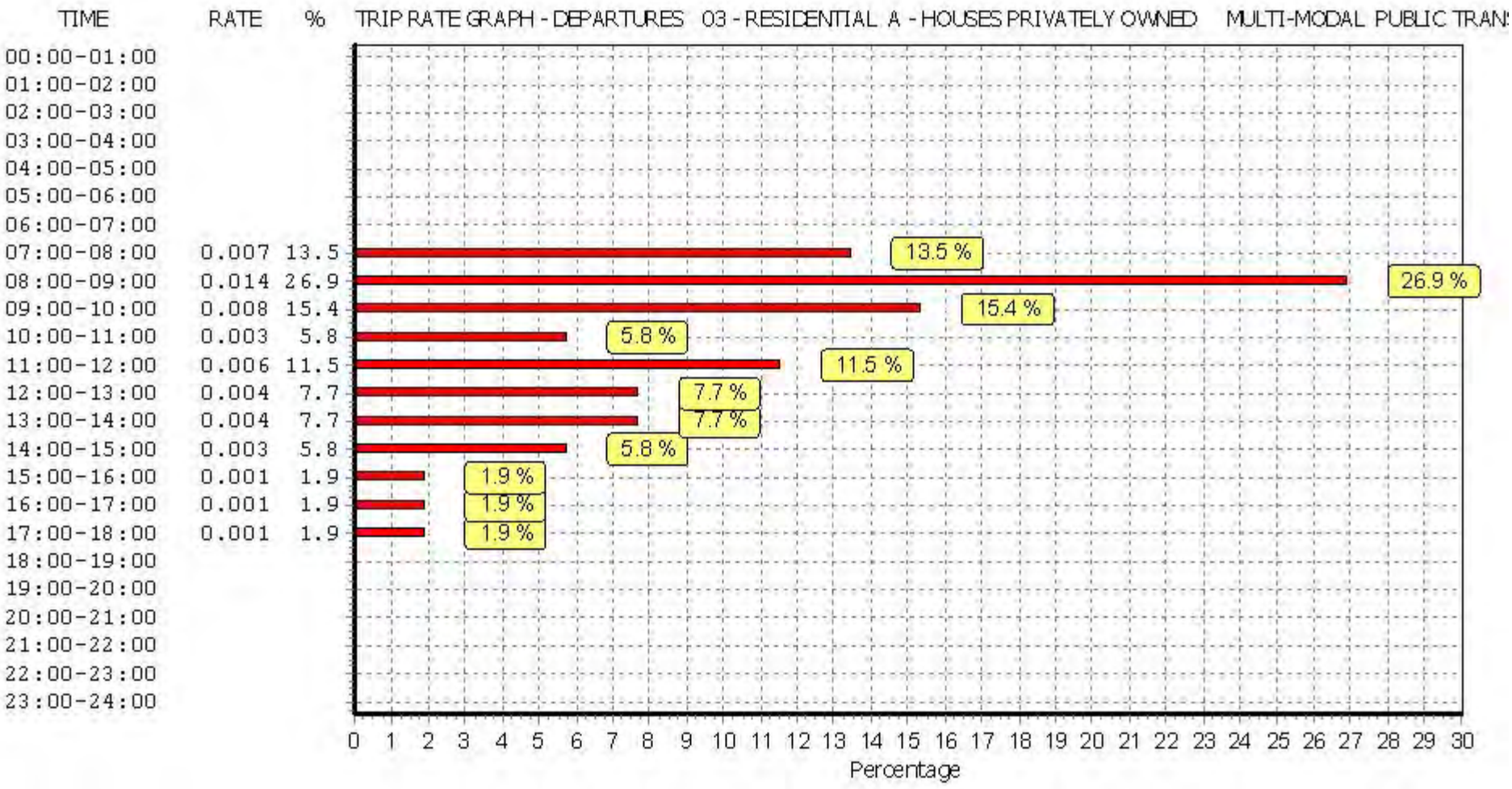
Parameter summary

Trip rate parameter range selected:	115 - 432 (units:)
Survey date date range:	01/01/07 - 11/12/14
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

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



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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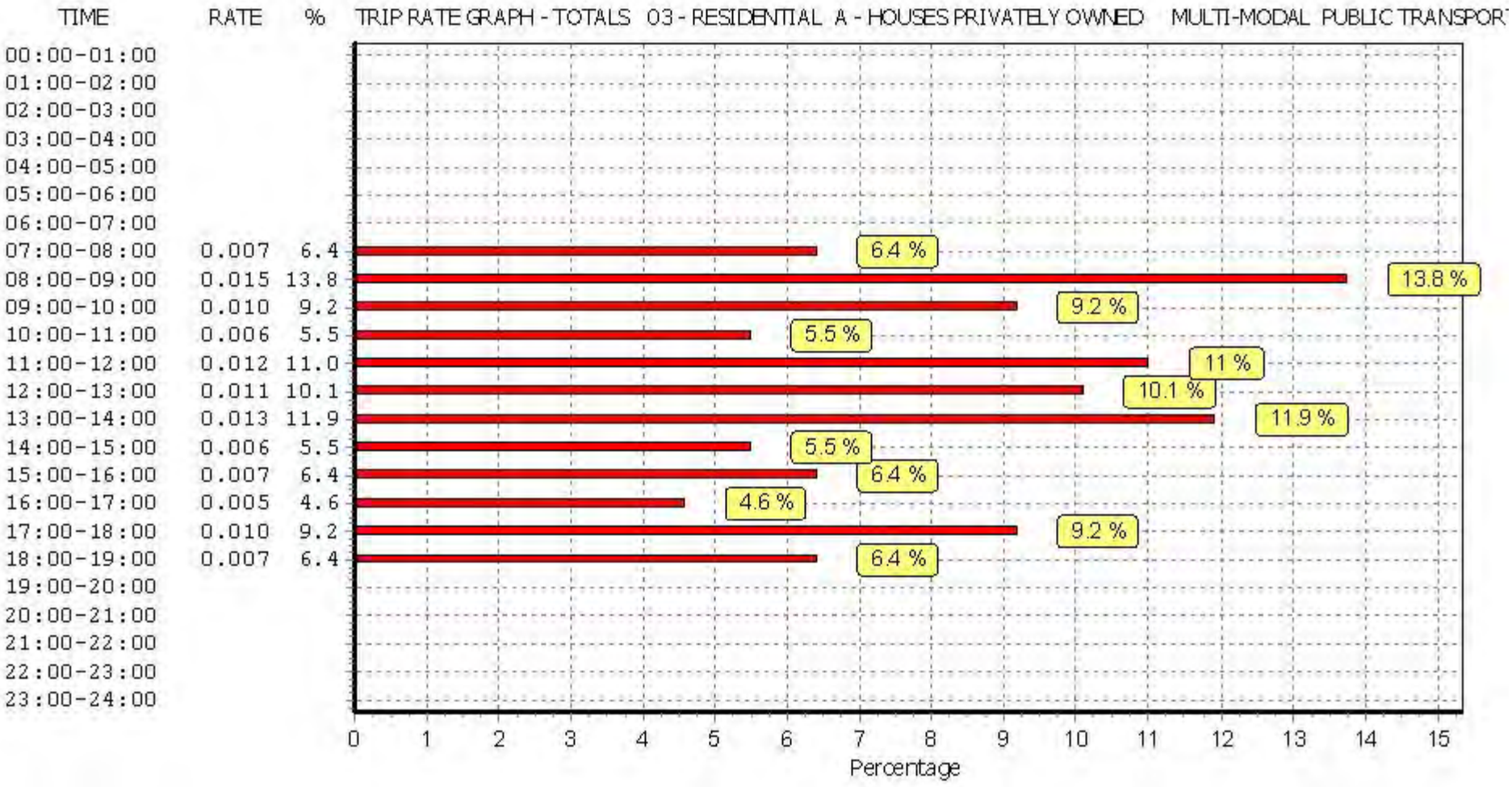

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TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	8	200	0.127	8	200	0.413	8	200	0.540
08:00 - 09:00	8	200	0.208	8	200	0.813	8	200	1.021
09:00 - 10:00	8	200	0.226	8	200	0.323	8	200	0.549
10:00 - 11:00	8	200	0.189	8	200	0.268	8	200	0.457
11:00 - 12:00	8	200	0.221	8	200	0.207	8	200	0.428
12:00 - 13:00	8	200	0.273	8	200	0.246	8	200	0.519
13:00 - 14:00	8	200	0.241	8	200	0.264	8	200	0.505
14:00 - 15:00	8	200	0.268	8	200	0.293	8	200	0.561
15:00 - 16:00	8	200	0.633	8	200	0.357	8	200	0.990
16:00 - 17:00	8	200	0.587	8	200	0.340	8	200	0.927
17:00 - 18:00	8	200	0.552	8	200	0.367	8	200	0.919
18:00 - 19:00	8	200	0.429	8	200	0.369	8	200	0.798
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.954			4.260			8.214

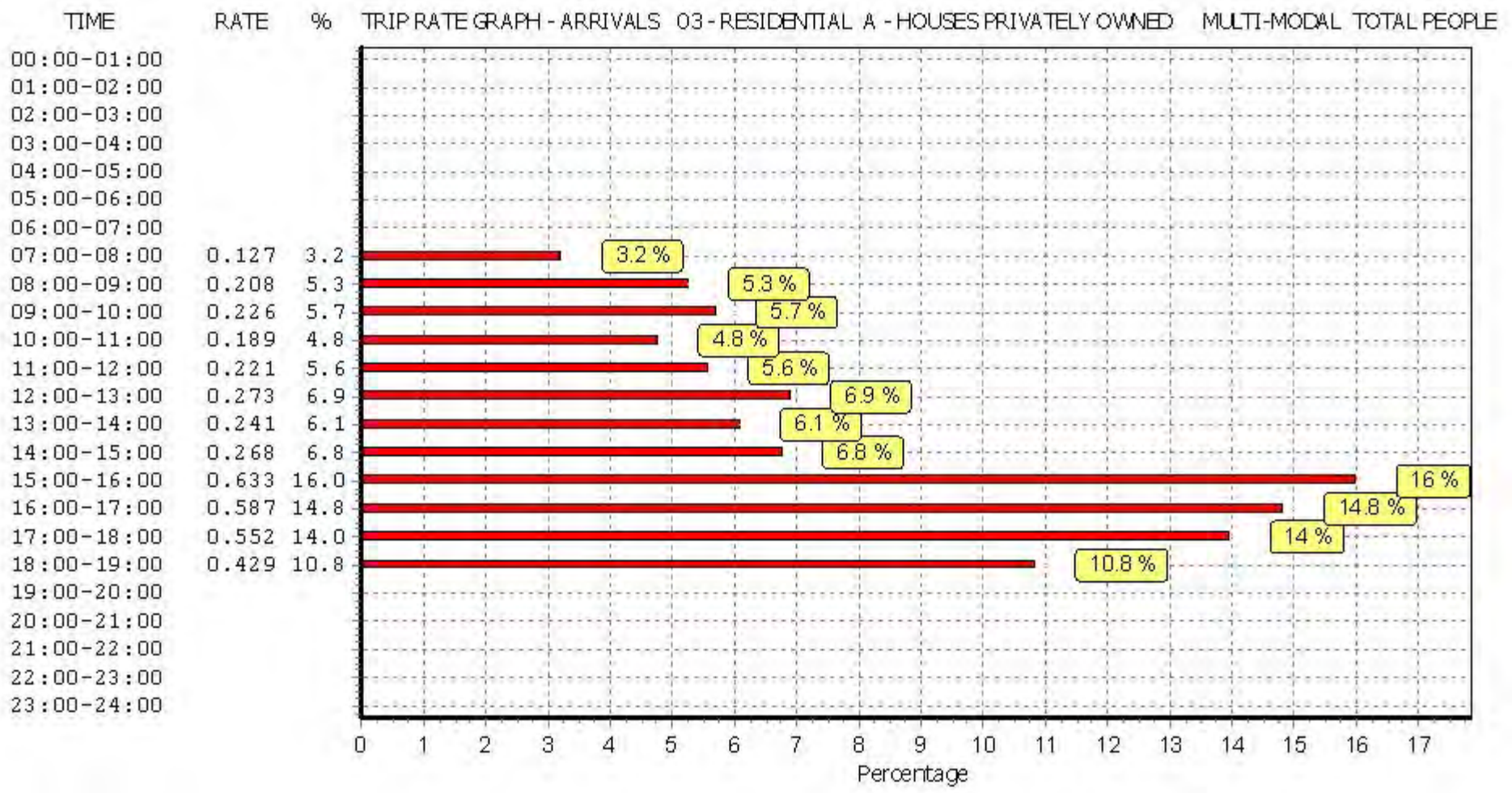
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are 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:	115 - 432 (units:)
Survey date date range:	01/01/07 - 11/12/14
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

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



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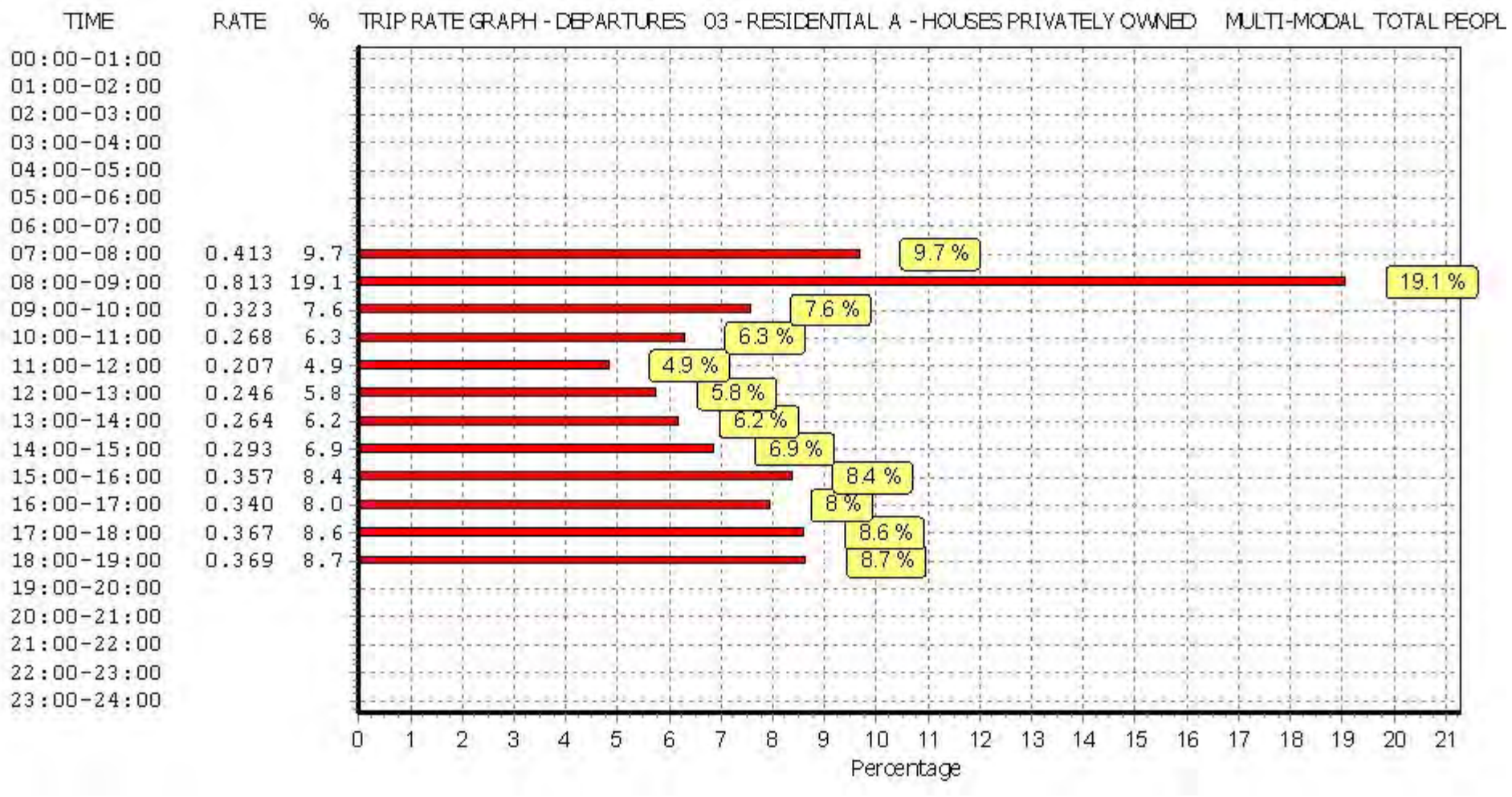

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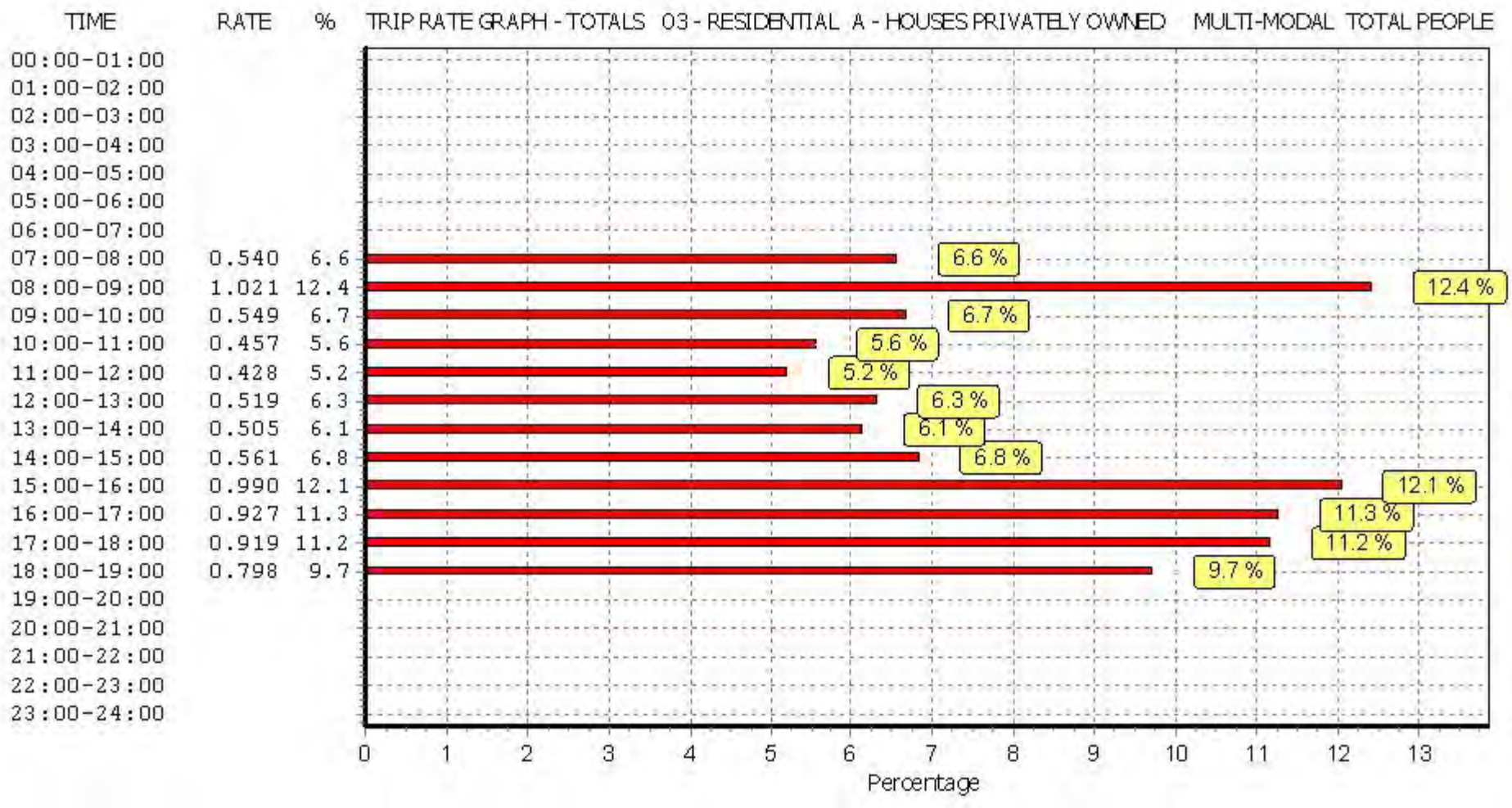

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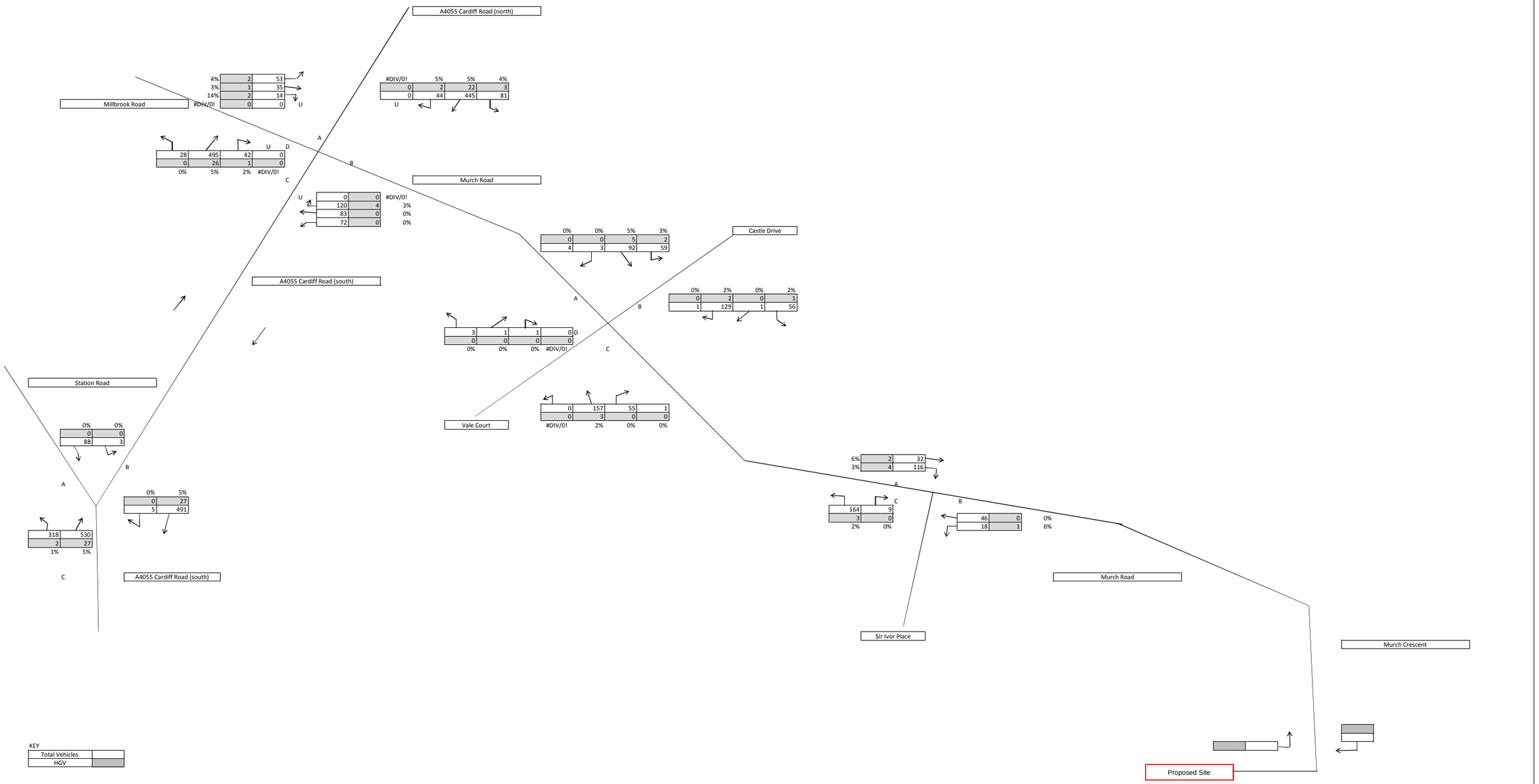
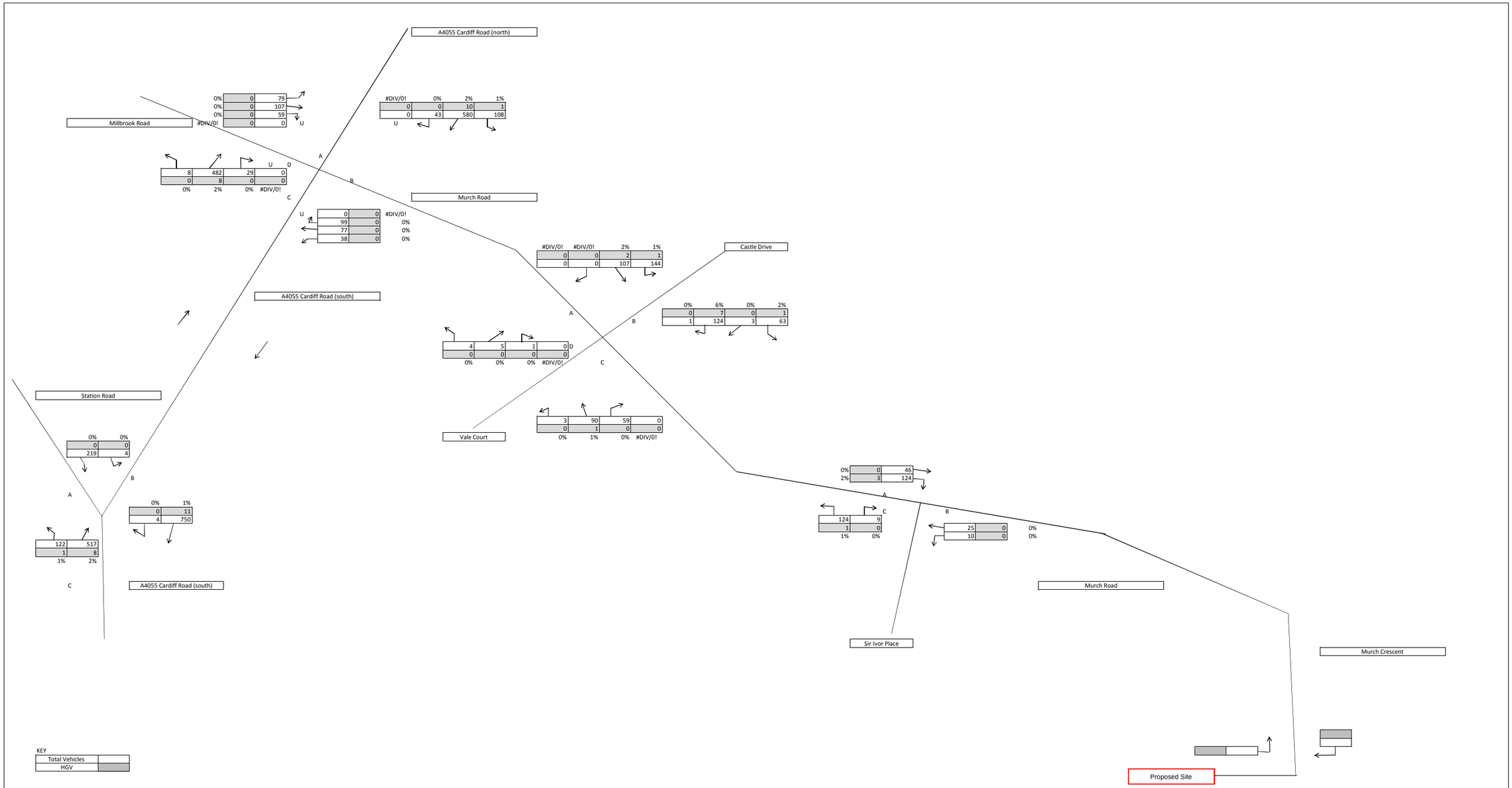
APPENDIX C – BASELINE TRAFFIC FLOW MODEL



RPS	Job No.	JNY8501	Rev Date.	13/10/2015	St Cyres Lower School
	Drawing No.		Authorised		Traffic Flows Baseline 2015 AM Peak
	Drawn by	AN	Checked by:	AW	Appendix xxx



RPS	Job No.	JNY8501	Rev Date.	13/10/2015	St Cyres Lower School
	Drawing No.		Authorised		Traffic Flows Baseline 2015 PM Peak
	Drawn by	AN	Checked by:	AW	Appendix xxx

APPENDIX D – PERSONAL INJURY ACCIDENT DATA

SEVERITY	District	**Cardiff Road (A4055), Dinas Powys**	Grid Reference
SERIOUS	The Vale of Glamorgan Ref.No 0197703		315422 / 170598 Police Officer Attend: No - reported over the counter

Date	30/01/2010 Day Saturday
Time	01:25
Weather	Fine without high winds
Road Surface	Wet/Damp
Street Lighting	Dark: street lights present and lit

Road U Location Cardiff Road Junction with Cross Common Road, Dinas Powys

Description of Accident V1 Lost Control Whilst Negotiating a Bend and left Carriageway Entering Wooded Area, Colliding with a Large Tree. Substantial Damage to Car Resulting in Driver Being Cut out by Fire Service. Driver Intoxicated.

SITE DETAILS

Speed Limit	30 MPH
Carriageway	Single carriageway
Junction Detail	Not at or within 20 metres of junction
Junction Control	
2nd Road Number	
Pedestrian Facilities	None within 50 metres No physical crossing facility within 50 n

SPECIAL SITE CONDITIONS
None

CARRIAGEWAY HAZARDS
None

VEHICLES INVOLVED 1

Veh.No. 1	Vehicle type Car	Make	Model	
Manoeuvre	Going ahead right hand bend			
Veh. direction from	Northwest to South	Towing?	No tow or articulation	
Skidded	Skidded			
Veh location at impact (restricted lane)	On main carriageway not in restricted lane			
Junct. location of veh. at 1st impact	Not at or within 20m of junction			
Veh left carriageway?	Left carriageway offside			
Hit object in c'way?	None			
Hit object off c'way?	Tree			
First point of impact	Nearside			
Veh registration no.		Other veh.hit (ref.no)	0	Hit and run Not hit and run
Drivers age 20 yrs	Sex Female	Breath test	Driver not contacted	Driving Lic
Left Hand Drive	Unknown	Foreign veh.	Not foreign registered vehicle	
Journey purpose	Other			

CASUALTIES INVOLVED 1

Cas No 1	Cas Class Driver or Rider	Veh ref No 1	
Severity SERIOUS	Age 20 yrs	Sex Female	Post code
Car Passenger?	Not a passenger	PSV Passenger?	Not a passenger
Seat Belt	Unknown	Cycle Helmet	
Ped Movement	Not applicable		
Ped Location	Not applicable		
Ped Direction to	Not applicable		
School Pupil	Other		
Roadworker injured			

Other Details

SEVERITY	District	**Cardiff Road (A4055), Dinas Powys**	Grid Reference
SLIGHT	The Vale of Glamorgan Ref.No 0214207		315288 / 170931 Police Officer Attend: Yes

Date	19/01/2012 Day Thursday	Road A4055	Location A4055, Cardiff Road/Station Road, Dinas Powys
Time	08:17		
Weather	Fine without high winds	Description of Accident	it Would Appear V1 Pulled out of Junction Having Failed to See V2 Approaching. V2 then Collided with O/S of V1 Causing Damage to both Vehicles, and Injuries to both Drivers
Road Surface	Wet/Damp		
Street Lighting	Daylight		

SITE DETAILS

Speed Limit	30 MPH
Carriageway	Single carriageway
Junction Detail	T or staggered junction
Junction Control	Give way or uncontrolled
2nd Road Number	U
Pedestrian Facilities	None within 50 metres No physical crossing facility within 50 n

SPECIAL SITE CONDITIONS
None

CARRIAGEWAY HAZARDS
None

VEHICLES INVOLVED 2

Veh.No. 1 Vehicle type Car Make Model
Manoeuvre Turning right
Veh. direction from North to Southwest Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Entering main road
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Offside
Veh registration no. Other veh.hit (ref.no) 2 Hit and run Not hit and run
Drivers age 69 yrs Sex Female Breath test Driver not contacted Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Commuting to/from work

Veh.No. 2 Vehicle type M/cycle > 500cc Make Model
Manoeuvre Going ahead other
Veh. direction from Southwest to Northeast Towing? No tow or articulation
Skidded Skidded
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Approaching junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Veh registration no. Other veh.hit (ref.no) 1 Hit and run Not hit and run
Drivers age 49 yrs Sex Male Breath test Not provided (medical r Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Commuting to/from work

CASUALTIES INVOLVED 2

Cas No 1 Cas Class Driver or Rider Veh ref No 1
Severity SLIGHT Age 69 yrs Sex Female Post code
Car Passenger? Not a passenger PSV Passenger? Not a passenger
Seat Belt Unknown Cycle Helmet
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Cas No 2 Cas Class Driver or Rider Veh ref No 2
Severity SLIGHT Age 49 yrs Sex Male Post code
Car Passenger? Not a passenger PSV Passenger? Not a passenger
Seat Belt Not applicable Cycle Helmet
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Other Details

SEVERITY	District	**Cardiff Road (A4055), Dinas Powys**	Grid Reference
SLIGHT	The Vale of Glamorgan Ref.No 0215440		315930 / 171560 Police Officer Attend: Yes

Date	14/03/2012	Day	Wednesday
Time	08:29		
Weather	Fine without high winds		
Road Surface	Dry		
Street Lighting	Daylight		

Road A4055 Location A4055, Cardiff Road, Dinas Powys

Description of Accident: Traffic was on Stop for both Lanes. the Witness Indicated for V2 to Pull out of Drive onto Road and as V2 Edged Forward V1 which was Overtaking to V2's Offside Collided with the Drivers Side Door of V2 Causing Injury and Damage

SITE DETAILS

Speed Limit	30 MPH
Carriageway	Dual carriageway
Junction Detail	Using private drive or entrance
Junction Control	Give way or uncontrolled
2nd Road Number	U
Pedestrian Facilities	None within 50 metres No physical crossing facility within 50 n

SPECIAL SITE CONDITIONS
None

CARRIAGEWAY HAZARDS
None

VEHICLES INVOLVED 2

Veh.No. 1 Vehicle type M/cycle > 500cc Make Model
Manoeuvre: Overtaking stat veh on its offside
Veh. direction from: West to East Towing? No tow or articulation
Skidded: No skidding, jack-knifing or overturning
Veh location at impact (restricted lane): On main carriageway not in restricted lane
Junct. location of veh. at 1st impact: Approaching junction or waiting
Veh left carriageway?: Did not leave carriageway
Hit object in c'way?: None
Hit object off c'way?: None
First point of impact: Front
Veh registration no. Other veh.hit (ref.no) 2 Hit and run: Not hit and run
Drivers age 42 yrs Sex Male Breath test: Negative Driving Lic
Left Hand Drive: Unknown Foreign veh.: Not foreign registered vehicle
Journey purpose: Journey as part of work

Veh.No. 2 Vehicle type Car Make Model
Manoeuvre: Moving off
Veh. direction from: North to South Towing? No tow or articulation
Skidded: No skidding, jack-knifing or overturning
Veh location at impact (restricted lane): On main carriageway not in restricted lane
Junct. location of veh. at 1st impact: Entering main road
Veh left carriageway?: Did not leave carriageway
Hit object in c'way?: None
Hit object off c'way?: None
First point of impact: Offside
Veh registration no. Other veh.hit (ref.no) 1 Hit and run: Not hit and run
Drivers age 37 yrs Sex Female Breath test: Negative Driving Lic
Left Hand Drive: Unknown Foreign veh.: Not foreign registered vehicle
Journey purpose: Journey as part of work

CASUALTIES INVOLVED 1

Cas No 1 Cas Class Driver or Rider Veh ref No 1
Severity SLIGHT Age 42 yrs Sex Male Post code

Car Passenger?	Not a passenger	PSV Passenger?	Not a passenger
Seat Belt	Not applicable	Cycle Helmet	
Ped Movement	Not applicable		
Ped Location	Not applicable		
Ped Direction to	Not applicable		
School Pupil	Other		
Roadworker injured			

Other Details

SEVERITY	District	**Cardiff Road (A4055), Dinas Powys**	Grid Reference
SLIGHT	The Vale of Glamorgan Ref.No 0215678		316280 / 171750 Police Officer Attend: Yes

Date	29/03/2012 Day Thursday
Time	11:26
Weather	Fine without high winds
Road Surface	Dry
Street Lighting	Daylight

Road U Location Cardiff Road, Dinas Powys, Vale of Glamorgan

Description of Accident D1 Has Had a Medical Episode Whilst Driving and as a Result Has Collided with V2 which was Travelling in the Opposite Direction.

SITE DETAILS

Speed Limit	30 MPH
Carriageway	Single carriageway
Junction Detail	Not at or within 20 metres of junction
Junction Control	
2nd Road Number	
Pedestrian Facilities	None within 50 metres No physical crossing facility within 50 n

SPECIAL SITE CONDITIONS
None

CARRIAGEWAY HAZARDS
None

VEHICLES INVOLVED 2

Veh.No. 1 Vehicle type Car Make Model
Manoeuvre Going ahead other
Veh. direction from West to East Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Not at or within 20m of junction
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Offside
Veh registration no. Other veh.hit (ref.no) 2 Hit and run Not hit and run
Drivers age 52 yrs Sex Female Breath test Not provided (medical r Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

Veh.No. 2 Vehicle type Car Make Model
Manoeuvre Going ahead other
Veh. direction from East to West Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Not at or within 20m of junction
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Offside
Veh registration no. Other veh.hit (ref.no) 1 Hit and run Not hit and run
Drivers age 46 yrs Sex Female Breath test Negative Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

CASUALTIES INVOLVED 2

Cas No 1 Cas Class Driver or Rider Veh ref No 1
Severity SLIGHT Age 52 yrs Sex Female Post code
Car Passenger? Not a passenger PSV Passenger? Not a passenger
Seat Belt Unknown Cycle Helmet
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Cas No 2 Cas Class Driver or Rider Veh ref No 2
Severity SLIGHT Age 46 yrs Sex Female Post code
Car Passenger? Not a passenger PSV Passenger? Not a passenger
Seat Belt Unknown Cycle Helmet
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Other Details

SEVERITY	District	**Cardiff Road (A4055), Dinas Powys**	Grid Reference
SLIGHT	The Vale of Glamorgan		315404 / 170614
	Ref.No 100200002		Police Officer Attend: No - reported over the counter

Date	26/04/2010 Day Monday
Time	11:15
Weather	Fine without high winds
Road Surface	Dry
Street Lighting	Daylight

Road A4055 Location Cardiff Road J/W Cross Common Road, Dinas Powys, Vale of Glamorgan

Description of Accident V2 Stationary Waiting to Turn right into Cross Common Road. V1 Collided with Rear and Failed to Stop.

SITE DETAILS

Speed Limit	30 MPH
Carriageway	Single carriageway
Junction Detail	T or staggered junction
Junction Control	Give way or uncontrolled
2nd Road Number	U
Pedestrian Facilities	None within 50 metres No physical crossing facility within 50 n

SPECIAL SITE CONDITIONS
None

CARRIAGEWAY HAZARDS
None

VEHICLES INVOLVED 2

Veh.No. 1 Vehicle type Car Make Model
Manoeuvre Going ahead other
Veh. direction from West to East Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Approaching junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Veh registration no. Other veh.hit (ref.no) 2 Hit and run Hit and Run
Drivers age ? yrs Sex Not know Breath test Not requested Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

Veh.No. 2 Vehicle type Car Make Model
Manoeuvre Waiting to turn right
Veh. direction from West to South Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Approaching junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Back
Veh registration no. Other veh.hit (ref.no) 1 Hit and run Not hit and run
Drivers age 79 yrs Sex Male Breath test Not requested Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

CASUALTIES INVOLVED 1

Cas No 1 Cas Class Passenger Veh ref No 2
Severity SLIGHT Age 78 yrs Sex Female Post code
Car Passenger? Front seat passenger PSV Passenger? Not a passenger
Seat Belt Unknown Cycle Helmet
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Other Details

SEVERITY	District	Cardiff Road (A4055), Dinas Powys	Grid Reference
SLIGHT	The Vale of Glamorgan Ref.No 100200046		315780 / 171490 Police Officer Attend: Yes

Date	30/04/2010 Day Friday
Time	07:25
Weather	Fine without high winds
Road Surface	Dry
Street Lighting	Daylight

Road U Location Cardiff Road Junction with Murch Road, Dinas Powys, Vale of Glamorgan

Description of Accident V1 Has Driven Through Red Traffic Light and Collided with V2

SITE DETAILS

Speed Limit	30 MPH
Carriageway	Single carriageway
Junction Detail	Crossroads
Junction Control	Automatic traffic signal
2nd Road Number	U
Pedestrian Facilities	None within 50 metres No physical crossing facility within 50 n

SPECIAL SITE CONDITIONS
None

CARRIAGEWAY HAZARDS
None

VEHICLES INVOLVED 2

Veh.No. 1 Vehicle type Car Make Model
Manoeuvre Going ahead other
Veh. direction from Southwest to Northeast Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Approaching junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Nearside
Veh registration no. Other veh.hit (ref.no) 2 Hit and run Not hit and run
Drivers age 34 yrs Sex Male Breath test Not requested Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

Veh.No. 2 Vehicle type M/cycle 125 - 500cc Make Model
Manoeuvre Going ahead other
Veh. direction from Northeast to Southwest Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Mid junction - on roundabout or main road
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Veh registration no. Other veh.hit (ref.no) 1 Hit and run Not hit and run
Drivers age 19 yrs Sex Male Breath test Not requested Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

CASUALTIES INVOLVED 1

Cas No 1 Cas Class Driver or Rider Veh ref No 2
Severity SLIGHT Age 19 yrs Sex Male Post code

Car Passenger?	Not a passenger	PSV Passenger?	Not a passenger
Seat Belt	Not applicable	Cycle Helmet	
Ped Movement	Not applicable		
Ped Location	Not applicable		
Ped Direction to	Not applicable		
School Pupil	Other		
Roadworker injured			

Other Details

SEVERITY	District	**Cardiff Road (A4055), Dinas Powys**	Grid Reference
SLIGHT	The Vale of Glamorgan Ref.No 100200108		316210 / 171670 Police Officer Attend: Yes

Date	30/04/2010 Day Friday	Road U	Location Cardiff Road Junction with Chapel Row, Dinas Powys, Vale of Glamorgan
Time	12:28		
Weather	Fine without high winds	Description of Accident	Appears That Ip Has Walked out onto Pedestrian Crossing Directly in Front of Vehicle Without Looking and Has Come into Collision with Front of Bus.
Road Surface	Dry		
Street Lighting	Daylight		

SITE DETAILS

Speed Limit	30 MPH
Carriageway	Dual carriageway
Junction Detail	T or staggered junction
Junction Control	Give way or uncontrolled
2nd Road Number	U
Pedestrian Facilities	None within 50 metres Pelican, puffin, toucan or similar

SPECIAL SITE CONDITIONS
None

CARRIAGEWAY HAZARDS
None

VEHICLES INVOLVED 1

Veh.No. 1	Vehicle type Bus or Coach		Make	Model
Manoeuvre	Going ahead other			
Veh. direction from	South to North	Towing?	No tow or articulation	
Skidded	No skidding, jack-knifing or overturning			
Veh location at impact (restricted lane)	On main carriageway not in restricted lane			
Junct. location of veh. at 1st impact	Approaching junction or waiting			
Veh left carriageway?	Did not leave carriageway			
Hit object in c'way?	None			
Hit object off c'way?	None			
First point of impact	Front			
Veh registration no.		Other veh.hit (ref.no)	0	Hit and run Not hit and run
Drivers age 34 yrs	Sex Male	Breath test	Negative	Driving Lic
Left Hand Drive	Unknown	Foreign veh.	Not foreign registered vehicle	
Journey purpose	Journey as part of work			

CASUALTIES INVOLVED 1

Cas No 1	Cas Class Pedestrian			Veh ref No 1	
Severity SLIGHT	Age 20 yrs	Sex Female	Post code		
Car Passenger?	Not a passenger	PSV Passenger?	Not a passenger		
Seat Belt	Unknown	Cycle Helmet			
Ped Movement	Crossing from driver's nearside				
Ped Location	On ped. crossing facility				
Ped Direction to	East bound				
School Pupil	Other				
Roadworker injured	Not applicable				

Other Details

SEVERITY	District	**Cardiff Road (A4055), Dinas Powys**	Grid Reference
SLIGHT	The Vale of Glamorgan Ref.No 100200705		315950 / 171560 Police Officer Attend: Yes

Date	26/05/2010	Day	Wednesday
Time	09:42		
Weather	Fine without high winds		
Road Surface	Dry		
Street Lighting	Daylight		

Road U Location Cardiff Road Junction with St Davids Avenue, Dinas Powys, Vale of Glamorgan

Description of Accident C1 Ran into Road Striking Side of V1 Believe Rear Wheel Passed over left Foot.

SITE DETAILS

Speed Limit	30 MPH
Carriageway	Single carriageway
Junction Detail	Other junction
Junction Control	Authorised person
2nd Road Number	U
Pedestrian Facilities	None within 50 metres No physical crossing facility within 50 n

SPECIAL SITE CONDITIONS
None

CARRIAGEWAY HAZARDS
None

VEHICLES INVOLVED 1

Veh.No.	1	Vehicle type	Car	Make	Model
Manoeuvre	Going ahead other				
Veh. direction from	East to West	Towing?	No tow or articulation		
Skidded	No skidding, jack-knifing or overturning				
Veh location at impact (restricted lane)	On main carriageway not in restricted lane				
Junct. location of veh. at 1st impact	Approaching junction or waiting				
Veh left carriageway?	Did not leave carriageway				
Hit object in c'way?	None				
Hit object off c'way?	None				
First point of impact	Did not impact				
Veh registration no.		Other veh.hit (ref.no)	0	Hit and run	Not hit and run
Drivers age	41 yrs	Sex	Male	Breath test	Negative
Left Hand Drive	Unknown	Foreign veh.	Not foreign registered vehicle		
Journey purpose	Other				

CASUALTIES INVOLVED 1

Cas No	1	Cas Class	Pedestrian	Veh ref No	1
Severity	SLIGHT	Age	13 yrs	Sex	Female
Post code					
Car Passenger?	Not a passenger	PSV Passenger?	Not a passenger		
Seat Belt	Unknown	Cycle Helmet			
Ped Movement	Crossing from driver's nearside				
Ped Location	In carriageway, crossing elsewhere				
Ped Direction to	Northbound				
School Pupil	Yes on way to or from school				
Roadworker injured	Not applicable				

Other Details

SEVERITY	District	**Cardiff Road (A4055), Dinas Powys**	Grid Reference
SLIGHT	The Vale of Glamorgan Ref.No 100202554		315630 / 171260 Police Officer Attend: No - reported over the counter

Date 05/08/2010 Day Thursday
Time 21:29
Weather Fine without high winds
Road Surface Dry
Street Lighting Dark: street lights present and lit

Road U Location Cardiff Road, Dinas Powys, Vale of Glamorgan

Description of Accident V1 Has Pulled out of Layby to Go across the Road to a Garage. V2 was Travelling on Carriageway V1 Failed to See Him and Collided.

SITE DETAILS

Speed Limit 30 MPH
Carriageway Single carriageway
Junction Detail Using private drive or entrance
Junction Control Give way or uncontrolled
2nd Road Number
Pedestrian Facilities None within 50 metres
Pelican, puffin, toucan or similar

SPECIAL SITE CONDITIONS
None

CARRIAGEWAY HAZARDS
None

VEHICLES INVOLVED 2

Veh.No. 1 Vehicle type Car Make Model
Manoeuvre Going ahead other
Veh. direction from South to North Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Entering main road
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Veh registration no. Other veh.hit (ref.no) 2 Hit and run Not hit and run
Drivers age 20 yrs Sex Female Breath test Negative Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

Veh.No. 2 Vehicle type Car Make Model
Manoeuvre Going ahead other
Veh. direction from West to East Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Entering main road
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Nearside
Veh registration no. Other veh.hit (ref.no) 1 Hit and run Not hit and run
Drivers age 25 yrs Sex Male Breath test Negative Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

CASUALTIES INVOLVED 1

Cas No 1 Cas Class Driver or Rider Veh ref No 2
Severity SLIGHT Age 25 yrs Sex Male Post code
Car Passenger? Not a passenger PSV Passenger? Not a passenger
Seat Belt Unknown Cycle Helmet
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Other Details

SEVERITY	District	Cardiff Road (A4055), Dinas Powys	Grid Reference
SLIGHT	The Vale of Glamorgan Ref.No 100203885		316448 / 171952 Police Officer Attend: Yes

Date	05/10/2010 Day Tuesday
Time	13:45
Weather	Fine without high winds
Road Surface	Dry
Street Lighting	Daylight

Road A4055 Location A4055 Cardiff Road, Dinas Powys

Description of Accident: Vehicles 2, 3, 4 and 5 Stationary Waiting to Go Ahead, V1 Failed to See Situation and Has Collided with Rear of V2 Shunting Each Vehicle into Each Other.

SITE DETAILS

Speed Limit	30 MPH
Carriageway	Single carriageway
Junction Detail	T or staggered junction
Junction Control	Give way or uncontrolled
2nd Road Number	U
Pedestrian Facilities	None within 50 metres No physical crossing facility within 50 n

SPECIAL SITE CONDITIONS
None

CARRIAGEWAY HAZARDS
None

VEHICLES INVOLVED 5

Veh.No. 1 Vehicle type Car Make Model
Manoeuvre Going ahead other
Veh. direction from West to East Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Approaching junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Back
Veh registration no. Other veh.hit (ref.no) 2 Hit and run Not hit and run
Drivers age 23 yrs Sex Male Breath test Negative Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

Veh.No. 2 Vehicle type Car Make Model
Manoeuvre Going ahead other
Veh. direction from West to East Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Approaching junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Back
Veh registration no. Other veh.hit (ref.no) 3 Hit and run Not hit and run
Drivers age 39 yrs Sex Female Breath test Negative Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

CASUALTIES INVOLVED 6

Cas No 1 Cas Class Driver or Rider Veh ref No 1
Severity SLIGHT Age 23 yrs Sex Male Post code
Car Passenger? Not a passenger PSV Passenger? Not a passenger
Seat Belt Unknown Cycle Helmet
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Cas No 2 Cas Class Driver or Rider Veh ref No 2
Severity SLIGHT Age 39 yrs Sex Female Post code
Car Passenger? Not a passenger PSV Passenger? Not a passenger
Seat Belt Unknown Cycle Helmet
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Cas No 3 Cas Class Driver or Rider Veh ref No 3
Severity SLIGHT Age 19 yrs Sex Female Post code
Car Passenger? Not a passenger PSV Passenger? Not a passenger
Seat Belt Unknown Cycle Helmet
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Veh.No. 3 Vehicle type Car Make Model
Manoeuvre Waiting to go ahead but held up
Veh. direction from West to East Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Approaching junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Back
Veh registration no. Other veh.hit (ref.no) 4 Hit and run Not hit and run
Drivers age 19 yrs Sex Female Breath test Negative Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

Veh.No. 4 Vehicle type Car Make Model
Manoeuvre Waiting to go ahead but held up
Veh. direction from West to East Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Approaching junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Back
Veh registration no. Other veh.hit (ref.no) 5 Hit and run Not hit and run
Drivers age 75 yrs Sex Female Breath test Negative Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

Veh.No. 5 Vehicle type Car Make Model
Manoeuvre Waiting to go ahead but held up
Veh. direction from West to East Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Approaching junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Veh registration no. Other veh.hit (ref.no) 4 Hit and run Not hit and run
Drivers age 21 yrs Sex Male Breath test Negative Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

Cas No 4 Cas Class Driver or Rider Veh ref No 5
Severity SLIGHT Age 21 yrs Sex Male Post code
Car Passenger? Not a passenger PSV Passenger? Not a passenger
Seat Belt Unknown Cycle Helmet
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Cas No 5 Cas Class Passenger Veh ref No 2
Severity SLIGHT Age 16 yrs Sex Female Post code
Car Passenger? Front seat passenger PSV Passenger? Not a passenger
Seat Belt Unknown Cycle Helmet
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Cas No 6 Cas Class Passenger Veh ref No 2
Severity SLIGHT Age 0 yrs Sex Female Post code
Car Passenger? Rear seat passenger PSV Passenger? Not a passenger
Seat Belt Unknown Cycle Helmet
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Other Details

SEVERITY	District	**Cardiff Road (A4055), Dinas Powys**	Grid Reference
SERIOUS	The Vale of Glamorgan Ref.No 100204696		315950 / 171560 Police Officer Attend: Yes

Date	02/11/2010 Day Tuesday
Time	18:20
Weather	Fine without high winds
Road Surface	Wet/Damp
Street Lighting	Dark: street lights present and lit

Road A4055 Location A4055 Cardiff Rd J/W St Davids Ave., Dinas Powys

Description of Accident V1 in Process of turning right and Did Not See V2 on Travelling in Opposite Direction, Collision Occurred.

SITE DETAILS

Speed Limit	30 MPH
Carriageway	Single carriageway
Junction Detail	T or staggered junction
Junction Control	Give way or uncontrolled
2nd Road Number	U
Pedestrian Facilities	None within 50 metres No physical crossing facility within 50 n

SPECIAL SITE CONDITIONS
None

CARRIAGEWAY HAZARDS
None

VEHICLES INVOLVED 2

Veh.No. 1 Vehicle type Car Make Model
Manoeuvre Turning right
Veh. direction from East to North Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Leaving main road
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Nearside
Veh registration no. Other veh.hit (ref.no) 2 Hit and run Not hit and run
Drivers age 40 yrs Sex Male Breath test Not requested Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Commuting to/from work

Veh.No. 2 Vehicle type M/cycle 50 - 125cc Make Model
Manoeuvre Turning right
Veh. direction from West to East Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Leaving main road
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Veh registration no. Other veh.hit (ref.no) 1 Hit and run Not hit and run
Drivers age 24 yrs Sex Male Breath test Not requested Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

CASUALTIES INVOLVED 1

Cas No 1 Cas Class Driver or Rider Veh ref No 2
Severity SERIOUS Age 24 yrs Sex Male Post code

Car Passenger?	Not a passenger	PSV Passenger?	Not a passenger
Seat Belt	Not applicable	Cycle Helmet	
Ped Movement	Not applicable		
Ped Location	Not applicable		
Ped Direction to	Not applicable		
School Pupil	Other		
Roadworker injured			

Other Details

SEVERITY	District	**Cardiff Road (A4055), Dinas Powys**	Grid Reference
SLIGHT	The Vale of Glamorgan		315410 / 170620
	Ref.No 100204867		Police Officer Attend: Yes

Date	08/11/2010 Day Monday
Time	13:26
Weather	Fine without high winds
Road Surface	Dry
Street Lighting	Daylight

Road U Location Cardiff Road Junction with Cross Common Road, Dinas Powys, Vale of Glamorgan

Description of Accident V1 for no Apparent Reason Suddenly Moved into Opposite Lane Colliding with V2 . V1 left Carriageway Travelling down Embankment.

SITE DETAILS

Speed Limit	30 MPH
Carriageway	Single carriageway
Junction Detail	T or staggered junction
Junction Control	Give way or uncontrolled
2nd Road Number	U
Pedestrian Facilities	None within 50 metres
	No physical crossing facility within 50 n

SPECIAL SITE CONDITIONS
None

CARRIAGEWAY HAZARDS
None

VEHICLES INVOLVED 2

Veh.No. 1 Vehicle type Car Make Model
Manoeuvre Going ahead other
Veh. direction from South to North Towing? No tow or articulation
Skidded Skidded
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Mid junction - on roundabout or main road
Veh left carriageway? Left carriageway nearside
Hit object in c'way? None
Hit object off c'way? Entered ditch
First point of impact Front
Veh registration no. Other veh.hit (ref.no) 2 Hit and run Not hit and run
Drivers age 32 yrs Sex Female Breath test Not requested Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

Veh.No. 2 Vehicle type Car Make Model
Manoeuvre Going ahead other
Veh. direction from North to South Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Mid junction - on roundabout or main road
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Veh registration no. Other veh.hit (ref.no) 1 Hit and run Not hit and run
Drivers age 23 yrs Sex Female Breath test Not requested Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

CASUALTIES INVOLVED 2

Cas No 1 Cas Class Driver or Rider Veh ref No 1
Severity SLIGHT Age 32 yrs Sex Female Post code
Car Passenger? Not a passenger PSV Passenger? Not a passenger
Seat Belt Unknown Cycle Helmet
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Cas No 2 Cas Class Passenger Veh ref No 2
Severity SLIGHT Age 1 yrs Sex Male Post code
Car Passenger? Rear seat passenger PSV Passenger? Not a passenger
Seat Belt Unknown Cycle Helmet
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Other Details

SEVERITY	District	**Cardiff Road (A4055), Dinas Powys**	Grid Reference
SLIGHT	The Vale of Glamorgan Ref.No 110207802		316050 / 171190 Police Officer Attend: Yes

Date	12/03/2011 Day Saturday	Road U	Location Plas Essyllt Junction with Murch Road, Dinas Powys, Vale of Glamorgan
Time	11:58		
Weather	Fine without high winds	Description of Accident	V2 Has Turned into Road, V1 Has Approached in the Middle of the Road and Failed to Observe V2 which Has Come to a Halt. V1 Has Collided with Front of V2 Causing Damage.
Road Surface	Dry		
Street Lighting	Daylight		

SITE DETAILS

Speed Limit	30 MPH
Carriageway	Single carriageway
Junction Detail	T or staggered junction
Junction Control	Give way or uncontrolled
2nd Road Number	U
Pedestrian Facilities	None within 50 metres No physical crossing facility within 50 n

SPECIAL SITE CONDITIONS

None

CARRIAGEWAY HAZARDS

None

VEHICLES INVOLVED 2

Veh.No. 1 Vehicle type M/cycle 50 - 125cc Make Model
Manoeuvre Going ahead other
Veh. direction from West to East Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Approaching junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Veh registration no. Other veh.hit (ref.no) 2 Hit and run Not hit and run
Drivers age 20 yrs Sex Male Breath test Negative Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

Veh.No. 2 Vehicle type Car Make Model
Manoeuvre Waiting to go ahead but held up
Veh. direction from East to West Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Cleared junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Veh registration no. Other veh.hit (ref.no) 1 Hit and run Not hit and run
Drivers age 34 yrs Sex Female Breath test Negative Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

CASUALTIES INVOLVED 1

Cas No 1 Cas Class Driver or Rider Veh ref No 1
Severity SLIGHT Age 20 yrs Sex Male Post code

Car Passenger?	Not a passenger	PSV Passenger?	Not a passenger
Seat Belt	Not applicable	Cycle Helmet	
Ped Movement	Not applicable		
Ped Location	Not applicable		
Ped Direction to	Not applicable		
School Pupil	Other		
Roadworker injured			

Other Details

SEVERITY	District	**Cardiff Road (A4055), Dinas Powys**	Grid Reference
SLIGHT	The Vale of Glamorgan Ref.No 110208056		315590 / 171220 Police Officer Attend: Yes

Date	26/03/2011 Day Saturday	Road A4055	Location Cardiff Road J/W Elmgrove Rd, Dinas Powys
Time	16:10		
Weather	Fine without high winds	Description of Accident	V2 Slowed Due to Flow of Traffic and V1 Collided with Rear Offside and then Collided Head on with V3 Travelling in Opposite Direction.
Road Surface	Dry		
Street Lighting	Daylight		

SITE DETAILS

Speed Limit	30 MPH
Carriageway	Single carriageway
Junction Detail	T or staggered junction
Junction Control	Give way or uncontrolled
2nd Road Number	U
Pedestrian Facilities	None within 50 metres Pelican, puffin, toucan or similar

SPECIAL SITE CONDITIONS
None

CARRIAGEWAY HAZARDS
None

VEHICLES INVOLVED 3

Veh.No. 1 Vehicle type Car Make Model
Manoeuvre Going ahead other
Veh. direction from East to West Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Approaching junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Veh registration no. Other veh.hit (ref.no) 2 Hit and run Not hit and run
Drivers age 32 yrs Sex Male Breath test Negative Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

Veh.No. 2 Vehicle type Car Make Model
Manoeuvre Slowing or stopping
Veh. direction from East to West Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Approaching junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Back
Veh registration no. Other veh.hit (ref.no) 1 Hit and run Not hit and run
Drivers age 34 yrs Sex Female Breath test Negative Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

CASUALTIES INVOLVED 1

Cas No 1 Cas Class Driver or Rider Veh ref No 3
Severity SLIGHT Age 49 yrs Sex Female Post code

Car Passenger?	Not a passenger	PSV Passenger?	Not a passenger
Seat Belt	Unknown	Cycle Helmet	
Ped Movement	Not applicable		
Ped Location	Not applicable		
Ped Direction to	Not applicable		
School Pupil	Other		
Roadworker injured			

Other Details

Veh.No.	3	Vehicle type	Car	Make	Model
Manoeuvre	Going ahead other				
Veh. direction from	West to East	Towing?	No tow or articulation		
Skidded	No skidding, jack-knifing or overturning				
Veh location at impact (restricted lane)	On main carriageway not in restricted lane				
Junct. location of veh. at 1st impact	Cleared junction or waiting				
Veh left carriageway?	Did not leave carriageway				
Hit object in c'way?	None				
Hit object off c'way?	None				
First point of impact	Front				
Veh registration no.		Other veh.hit (ref.no)	1	Hit and run	Not hit and run
Drivers age	49 yrs	Sex	Female	Breath test	Negative	Driving Lic	
Left Hand Drive	Unknown	Foreign veh.	Not foreign registered vehicle		
Journey purpose	Other				

SEVERITY	District	Cardiff Road (A4055), Dinas Powys	Grid Reference
SLIGHT	The Vale of Glamorgan Ref.No 110208711		315320 / 170740 Police Officer Attend: Yes

Date	08/04/2011 Day Friday
Time	16:00
Weather	Fine without high winds
Road Surface	Dry
Street Lighting	Daylight

Road A4055 Location Cardiff Road J/W Heol Frenhines, Dinas Powys

Description of Accident V1 turning onto Main Road Collided with V2 Already on Main Road.

SITE DETAILS

Speed Limit	30 MPH
Carriageway	Single carriageway
Junction Detail	T or staggered junction
Junction Control	Give way or uncontrolled
2nd Road Number	U
Pedestrian Facilities	None within 50 metres No physical crossing facility within 50 n

SPECIAL SITE CONDITIONS
None

CARRIAGEWAY HAZARDS
None

VEHICLES INVOLVED 2

Veh.No. 1 Vehicle type Car Make Model
Manoeuvre Turning right
Veh. direction from West to South Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Cleared junction or waiting
Veh left carriageway? Left carriageway nearside
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Veh registration no. Other veh.hit (ref.no) 2 Hit and run Not hit and run
Drivers age 34 yrs Sex Female Breath test Not provided (medical r Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

Veh.No. 2 Vehicle type Car Make Model
Manoeuvre Going ahead other
Veh. direction from East to West Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Approaching junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Veh registration no. Other veh.hit (ref.no) 1 Hit and run Not hit and run
Drivers age 50 yrs Sex Female Breath test Not provided (medical r Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

CASUALTIES INVOLVED 2

Cas No 1 Cas Class Driver or Rider Veh ref No 1
Severity SLIGHT Age 34 yrs Sex Female Post code
Car Passenger? Not a passenger PSV Passenger? Not a passenger
Seat Belt Unknown Cycle Helmet
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Cas No 2 Cas Class Driver or Rider Veh ref No 2
Severity SLIGHT Age 50 yrs Sex Female Post code
Car Passenger? Not a passenger PSV Passenger? Not a passenger
Seat Belt Unknown Cycle Helmet
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Other Details

SEVERITY	District	**Cardiff Road (A4055), Dinas Powys**	Grid Reference
SLIGHT	The Vale of Glamorgan Ref.No 110212542		315490 / 171130 Police Officer Attend: Yes

Date	15/10/2011 Day Saturday	Road A4055	Location A4055 - Cardiff Road, Dinas Powys
Time	17:20		
Weather	Fine without high winds	Description of Accident	V1 Has Followed to Closely to V2 and as a Result Collided with the Rear of V2.
Road Surface	Dry		
Street Lighting	Daylight		

SITE DETAILS

Speed Limit	30 MPH
Carriageway	Single carriageway
Junction Detail	Not at or within 20 metres of junction
Junction Control	
2nd Road Number	
Pedestrian Facilities	None within 50 metres No physical crossing facility within 50 n

SPECIAL SITE CONDITIONS
None

CARRIAGEWAY HAZARDS
None

VEHICLES INVOLVED 2

Veh.No. 1 Vehicle type Car Make Model
Manoeuvre Going ahead other
Veh. direction from Northwest to Southeast Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Not at or within 20m of junction
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Veh registration no. Other veh.hit (ref.no) 2 Hit and run Not hit and run
Drivers age 35 yrs Sex Male Breath test Negative Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

Veh.No. 2 Vehicle type Car Make Model
Manoeuvre Going ahead other
Veh. direction from Northwest to Southeast Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Not at or within 20m of junction
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Back
Veh registration no. Other veh.hit (ref.no) 1 Hit and run Not hit and run
Drivers age 48 yrs Sex Female Breath test Negative Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

CASUALTIES INVOLVED 1

Cas No 1 Cas Class Driver or Rider Veh ref No 2
Severity SLIGHT Age 48 yrs Sex Female Post code

Car Passenger?	Not a passenger	PSV Passenger?	Not a passenger
Seat Belt	Unknown	Cycle Helmet	
Ped Movement	Not applicable		
Ped Location	Not applicable		
Ped Direction to	Not applicable		
School Pupil	Other		
Roadworker injured			

Other Details

SEVERITY	District	Cardiff Road (A4055), Dinas Powys	Grid Reference
SLIGHT	The Vale of Glamorgan Ref.No 110212853		315490 / 171130 Police Officer Attend: Yes

Date	14/11/2011 Day Monday	Road U	Location Cardiff Road at Junction with Texaco Service Station, Dinas Powys
Time	17:05		
Weather	Fine without high winds	Description of Accident	Whilst Vehicles Were Stationary at Traffic Lights, V1 Has Failed to Stop in Time and Has Collided with Rear of V2, which Has Collided with Rear of V3, which Has Collided with Rear of V4.
Road Surface	Dry		
Street Lighting	Dark: street lights present and lit		

SITE DETAILS

Speed Limit	30 MPH
Carriageway	Single carriageway
Junction Detail	T or staggered junction
Junction Control	Automatic traffic signal
2nd Road Number	U
Pedestrian Facilities	None within 50 metres Pelican, puffin, toucan or similar

SPECIAL SITE CONDITIONS
None

CARRIAGEWAY HAZARDS
None

VEHICLES INVOLVED 4

Veh.No. 1 Vehicle type Van/Goods < 3.5t Make Model
Manoeuvre Going ahead other
Veh. direction from Northeast to Southwest Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Approaching junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Veh registration no. Other veh.hit (ref.no) 2 Hit and run Not hit and run
Drivers age 31 yrs Sex Male Breath test Negative Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Journey as part of work

Veh.No. 2 Vehicle type Car Make Model
Manoeuvre Waiting to go ahead but held up
Veh. direction from Northeast to Southwest Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Approaching junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Back
Veh registration no. Other veh.hit (ref.no) 3 Hit and run Not hit and run
Drivers age 68 yrs Sex Male Breath test Negative Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

CASUALTIES INVOLVED 4

Cas No 1 Cas Class Driver or Rider Veh ref No 1
Severity SLIGHT Age 31 yrs Sex Male Post code
Car Passenger? Not a passenger PSV Passenger? Not a passenger
Seat Belt Unknown Cycle Helmet
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Cas No 2 Cas Class Driver or Rider Veh ref No 2
Severity SLIGHT Age 68 yrs Sex Male Post code
Car Passenger? Not a passenger PSV Passenger? Not a passenger
Seat Belt Unknown Cycle Helmet
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Cas No 3 Cas Class Driver or Rider Veh ref No 3
Severity SLIGHT Age 19 yrs Sex Male Post code
Car Passenger? Not a passenger PSV Passenger? Not a passenger
Seat Belt Unknown Cycle Helmet
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Veh.No.	3	Vehicle type	Car	Make	Model
Manoeuvre	Waiting to go ahead but held up				
Veh. direction from	Northeast to Southwest	Towing?	No tow or articulation		
Skidded	No skidding, jack-knifing or overturning				
Veh location at impact (restricted lane)	On main carriageway not in restricted lane				
Junct. location of veh. at 1st impact	Approaching junction or waiting				
Veh left carriageway?	Did not leave carriageway				
Hit object in c'way?	None				
Hit object off c'way?	None				
First point of impact	Back				
Veh registration no.		Other veh.hit (ref.no)	4	Hit and run	Not hit and run
Drivers age	19 yrs	Sex	Male	Breath test	Negative	Driving Lic	
Left Hand Drive	Unknown	Foreign veh.	Not foreign registered vehicle		
Journey purpose	Other				

Veh.No.	4	Vehicle type	Car	Make	Model
Manoeuvre	Waiting to go ahead but held up				
Veh. direction from	Northeast to Southwest	Towing?	No tow or articulation		
Skidded	No skidding, jack-knifing or overturning				
Veh location at impact (restricted lane)	On main carriageway not in restricted lane				
Junct. location of veh. at 1st impact	Approaching junction or waiting				
Veh left carriageway?	Did not leave carriageway				
Hit object in c'way?	None				
Hit object off c'way?	None				
First point of impact	Back				
Veh registration no.		Other veh.hit (ref.no)	3	Hit and run	Not hit and run
Drivers age	29 yrs	Sex	Female	Breath test	Negative	Driving Lic	
Left Hand Drive	Unknown	Foreign veh.	Not foreign registered vehicle		
Journey purpose	Other				

Cas No	4	Cas Class	Driver or Rider	Veh ref No	4
Severity	SLIGHT	Age	29 yrs	Sex	Female	Post code	
Car Passenger?	Not a passenger	PSV Passenger?	Not a passenger
Seat Belt	Unknown	Cycle Helmet	
Ped Movement	Not applicable		
Ped Location	Not applicable		
Ped Direction to	Not applicable		
School Pupil	Other		
Roadworker injured			

Other Details

SEVERITY	District	Cardiff Road (A4055), Dinas Powys	Grid Reference
SLIGHT	The Vale of Glamorgan Ref.No 110212861		315490 / 171130 Police Officer Attend: Yes

Date	06/10/2011	Day	Thursday
Time	16:00		
Weather	Unknown		
Road Surface	Dry		
Street Lighting	Daylight		

Road A4055 Location A4055, Cardiff Road, Dinys Powys

Description of Accident V1 Collided with Rear of V2 which was Stationary, Causing Damage.

SITE DETAILS

Speed Limit	30 MPH
Carriageway	Single carriageway
Junction Detail	Not at or within 20 metres of junction
Junction Control	
2nd Road Number	
Pedestrian Facilities	None within 50 metres No physical crossing facility within 50 n

SPECIAL SITE CONDITIONS

None

CARRIAGEWAY HAZARDS

None

VEHICLES INVOLVED 2

Veh.No. 1 Vehicle type Car Make Model

Manoeuvre	Slowing or stopping		
Veh. direction from	East to West	Towing?	No tow or articulation
Skidded	No skidding, jack-knifing or overturning		
Veh location at impact (restricted lane)	On main carriageway not in restricted lane		
Junct. location of veh. at 1st impact	Not at or within 20m of junction		
Veh left carriageway?	Did not leave carriageway		
Hit object in c'way?	None		
Hit object off c'way?	None		
First point of impact	Front		
Veh registration no.		Other veh.hit (ref.no)	2
Hit and run	Hit and Run		
Drivers age	26 yrs	Sex	Female
Breath test	Driver not contacted	Driving Lic	
Left Hand Drive	Unknown	Foreign veh.	Not foreign registered vehicle
Journey purpose	Other		

Veh.No. 2 Vehicle type Car Make Model

Manoeuvre	Waiting to go ahead but held up		
Veh. direction from	East to West	Towing?	No tow or articulation
Skidded	No skidding, jack-knifing or overturning		
Veh location at impact (restricted lane)	On main carriageway not in restricted lane		
Junct. location of veh. at 1st impact	Not at or within 20m of junction		
Veh left carriageway?	Did not leave carriageway		
Hit object in c'way?	None		
Hit object off c'way?	None		
First point of impact	Back		
Veh registration no.		Other veh.hit (ref.no)	1
Hit and run	Not hit and run		
Drivers age	32 yrs	Sex	Female
Breath test	Not requested	Driving Lic	
Left Hand Drive	Unknown	Foreign veh.	Not foreign registered vehicle
Journey purpose	Other		

CASUALTIES INVOLVED 1

Cas No 1 Cas Class Driver or Rider Veh ref No 2
Severity SLIGHT Age 32 yrs Sex Female Post code

Car Passenger?	Not a passenger	PSV Passenger?	Not a passenger
Seat Belt	Unknown	Cycle Helmet	
Ped Movement	Not applicable		
Ped Location	Not applicable		
Ped Direction to	Not applicable		
School Pupil	Other		
Roadworker injured			

Other Details

SEVERITY	District	Cardiff Road (A4055), Dinas Powys	Grid Reference
SLIGHT	The Vale of Glamorgan		315490 / 171130
	Ref.No 110214169		Police Officer Attend: Yes

Date	19/10/2011 Day Wednesday
Time	07:05
Weather	Unknown
Road Surface	Dry
Street Lighting	Dark: street lighting unknown

Road A4055 Location A4055, Cardiff Road, Dinas Powis

Description of Accident V1 Travellign Closely Behind V2 Along Road, V2 then Had to Brake Suddenly Due to Animal Running out onto Road. V1 then Driven into Back of V2.

SITE DETAILS

Speed Limit	30 MPH
Carriageway	Single carriageway
Junction Detail	Not at or within 20 metres of junction
Junction Control	
2nd Road Number	
Pedestrian Facilities	None within 50 metres No physical crossing facility within 50 n

SPECIAL SITE CONDITIONS
None

CARRIAGEWAY HAZARDS
None

VEHICLES INVOLVED 2

Veh.No. 1 Vehicle type 0.00 Make Model
Manoeuvre Waiting to go ahead but held up
Veh. direction from West to East Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Not at or within 20m of junction
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Veh registration no. Other veh.hit (ref.no) 2 Hit and run Hit and Run
Drivers age ? yrs Sex Not know Breath test Driver not contacted Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

Veh.No. 2 Vehicle type Car Make Model
Manoeuvre Waiting to go ahead but held up
Veh. direction from West to East Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Not at or within 20m of junction
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Back
Veh registration no. Other veh.hit (ref.no) 1 Hit and run Not hit and run
Drivers age 47 yrs Sex Male Breath test Driver not contacted Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

CASUALTIES INVOLVED 2

Cas No 1 Cas Class Driver or Rider Veh ref No 2
Severity SLIGHT Age 47 yrs Sex Male Post code
Car Passenger? Not a passenger PSV Passenger? Not a passenger
Seat Belt Unknown Cycle Helmet
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Cas No 2 Cas Class Passenger Veh ref No 2
Severity SLIGHT Age 53 yrs Sex Female Post code
Car Passenger? Front seat passenger PSV Passenger? Not a passenger
Seat Belt Unknown Cycle Helmet
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Other Details

SEVERITY	District			Grid Reference
SLIGHT	Ref.No	The Vale of Glamorgan 1200893	**Cardiff Road (A4055), Dinas Powys**	315660 / 171290 Police Officer Attend: Yes

Date	01/09/2012 Day Saturday	Road	A4055 Location at Junction A4055 Cardiff Road and Greenfields Avenue
Time	16:47		
Weather	Fine without high winds	Description of Accident	V1 was Exiting Carpark onto Main Carriageway and Turing right V2 was Travelling at Speed Towards V1 V2 Has Entered Carriage and Collided with V1.V1 Has then Collided with V3 which was Waiting at the Junction
Road Surface	Dry		
Street Lighting	Daylight		

SITE DETAILS

Speed Limit	30 MPH
Carriageway	Single carriageway
Junction Detail	T or staggered junction
Junction Control	Give way or uncontrolled
2nd Road Number	U
Pedestrian Facilities	None within 50 metres No physical crossing facility within 50 n

SPECIAL SITE CONDITIONS

None

CARRIAGEWAY HAZARDS

None

VEHICLES INVOLVED 3

Veh.No. 1 Vehicle type Car Make Model
Manoeuvre Turning right
Veh. direction from East to West Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Approaching junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Veh registration no. Other veh.hit (ref.no) 2 Hit and run Not hit and run
Drivers age 87 yrs Sex Male Breath test Negative Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

Veh.No. 2 Vehicle type Car Make Model
Manoeuvre Going ahead other
Veh. direction from South to North Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Approaching junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Veh registration no. Other veh.hit (ref.no) 1 Hit and run Not hit and run
Drivers age 21 yrs Sex Male Breath test Negative Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

CASUALTIES INVOLVED 1

Cas No 4 Cas Class Passenger Veh ref No 1
Severity SLIGHT Age 89 yrs Sex Female Post code
Car Passenger? Front seat passenger PSV Passenger? Not a passenger
Seat Belt Unknown Cycle Helmet
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Other Details

Veh.No.	3	Vehicle type	Car	Make	Model
Manoeuvre	Waiting to go ahead but held up				
Veh. direction from	East to West	Towing?	No tow or articulation		
Skidded	No skidding, jack-knifing or overturning				
Veh location at impact (restricted lane)	On main carriageway not in restricted lane				
Junct. location of veh. at 1st impact	Approaching junction or waiting				
Veh left carriageway?	Did not leave carriageway				
Hit object in c'way?	None				
Hit object off c'way?	None				
First point of impact	Front				
Veh registration no.		Other veh.hit (ref.no)	1	Hit and run	Not hit and run
Drivers age	55 yrs	Sex	Female	Breath test	Negative	Driving Lic	
Left Hand Drive	Unknown	Foreign veh.	Not foreign registered vehicle		
Journey purpose	Other				

SEVERITY	District	**Cardiff Road (A4055), Dinas Powys**	Grid Reference
SLIGHT	The Vale of Glamorgan Ref.No 1201362		315290 / 170930 Police Officer Attend: Yes

Date	14/11/2012	Day	Wednesday
Time	09:15		
Weather	Fine without high winds		
Road Surface	Dry		
Street Lighting	Daylight		

Road A4055 Location Cardiff Road, Dinas Powys, Junction with Station Road

Description of Accident Driver of V1 Failed to Look Properly and Pulled out in Front of V2 Causing Head-On Collision

SITE DETAILS

Speed Limit	30 MPH
Carriageway	Single carriageway
Junction Detail	T or staggered junction
Junction Control	Give way or uncontrolled
2nd Road Number	U
Pedestrian Facilities	None within 50 metres Pelican, puffin, toucan or similar

SPECIAL SITE CONDITIONS
None

CARRIAGEWAY HAZARDS
None

VEHICLES INVOLVED 2

Veh.No. 1 Vehicle type Car Make Model
Manoeuvre Turning right
Veh. direction from North to South Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Mid junction - on roundabout or main road
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Veh registration no. Other veh.hit (ref.no) 2 Hit and run Not hit and run
Drivers age 26 yrs Sex Female Breath test Not requested Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

Veh.No. 2 Vehicle type Car Make Model
Manoeuvre Going ahead other
Veh. direction from Southwest to Northeast Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Approaching junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Veh registration no. Other veh.hit (ref.no) 1 Hit and run Not hit and run
Drivers age 78 yrs Sex Male Breath test Not requested Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

CASUALTIES INVOLVED 2

Cas No 1 Cas Class Driver or Rider Veh ref No 1
Severity SLIGHT Age 26 yrs Sex Female Post code
Car Passenger? Not a passenger PSV Passenger? Not a passenger
Seat Belt Unknown Cycle Helmet
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Cas No 2 Cas Class Driver or Rider Veh ref No 2
Severity SLIGHT Age 78 yrs Sex Male Post code
Car Passenger? Not a passenger PSV Passenger? Not a passenger
Seat Belt Unknown Cycle Helmet
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Other Details

SEVERITY	District	**Cardiff Road (A4055), Dinas Powys**	Grid Reference
SLIGHT	The Vale of Glamorgan Ref.No 1201437		315670 / 171290 Police Officer Attend: Yes

Date	22/11/2012 Day Thursday	Road A4055	Location Cardiff Road Junction Greenfield Ave, Dinas Powys
Time	09:22		
Weather	Fine without high winds	Description of Accident	V2 was Slowly Moving out to Centre of Road and was Waiting for Traffic to Allow Him out when V2 Approached and Subsquently Collided .
Road Surface	Wet/Damp		
Street Lighting	Daylight		

SITE DETAILS

Speed Limit	30 MPH
Carriageway	Single carriageway
Junction Detail	T or staggered junction
Junction Control	Give way or uncontrolled
2nd Road Number	U
Pedestrian Facilities	None within 50 metres No physical crossing facility within 50 n

SPECIAL SITE CONDITIONS

None

CARRIAGEWAY HAZARDS

None

VEHICLES INVOLVED 2

Veh.No. 1 Vehicle type Car Make Model
Manoeuvre Turning right
Veh. direction from Northwest to Southwest Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Entering main road
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Offside
Veh registration no. Other veh.hit (ref.no) 2 Hit and run Not hit and run
Drivers age 24 yrs Sex Male Breath test Negative Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Commuting to/from work

Veh.No. 2 Vehicle type Car Make Model
Manoeuvre Going ahead other
Veh. direction from Southwest to Northeast Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Approaching junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Veh registration no. Other veh.hit (ref.no) 1 Hit and run Not hit and run
Drivers age 19 yrs Sex Female Breath test Negative Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Commuting to/from work

CASUALTIES INVOLVED 1

Cas No 2 Cas Class Driver or Rider Veh ref No 2
Severity SLIGHT Age 19 yrs Sex Female Post code

Car Passenger?	Not a passenger	PSV Passenger?	Not a passenger
Seat Belt	Unknown	Cycle Helmet	
Ped Movement	Not applicable		
Ped Location	Not applicable		
Ped Direction to	Not applicable		
School Pupil	Other		
Roadworker injured			

Other Details

SEVERITY	District	**Cardiff Road (A4055), Dinas Powys**	Grid Reference
SLIGHT	The Vale of Glamorgan Ref.No 1201473		315750 / 171440 Police Officer Attend: Yes

Date	01/12/2012 Day Saturday
Time	19:30
Weather	Fine without high winds
Road Surface	Dry
Street Lighting	Dark: street lights present and lit

Road B4055 Location Cardiff Road, Dinas Powys Outside Number 70.

Description of Accident: Due to Intoxication of Driver of Veh1, it Would Appear Driver Has Clipped the Curb which Has Caused Him to Collide with a Bus Sign. Has then Lost Control and Collided with Rear of Veh2 which in Turn Has Collided with Veh3 which Has Shunted Veh 4 which Has Shunted Veh5.

SITE DETAILS

Speed Limit	30 MPH
Carriageway	Single carriageway
Junction Detail	Not at or within 20 metres of junction
Junction Control	
2nd Road Number	
Pedestrian Facilities	None within 50 metres No physical crossing facility within 50 n

SPECIAL SITE CONDITIONS
None

CARRIAGEWAY HAZARDS
None

VEHICLES INVOLVED 5

Veh.No. 1 Vehicle type Car Make Model
Manoeuvre Going ahead other
Veh. direction from East to West Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Not at or within 20m of junction
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Veh registration no. Other veh.hit (ref.no) 2 Hit and run Not hit and run
Drivers age 23 yrs Sex Male Breath test Positive Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

Veh.No. 2 Vehicle type Car Make Model
Manoeuvre Parked
Veh. direction from Parked to Parked Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Not at or within 20m of junction
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Back
Veh registration no. Other veh.hit (ref.no) 3 Hit and run Not hit and run
Drivers age ? yrs Sex Not knov Breath test Not Applicable Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

CASUALTIES INVOLVED 1

Cas No 2 Cas Class Passenger Veh ref No 1
Severity SLIGHT Age 23 yrs Sex Male Post code
Car Passenger? Front seat passenger PSV Passenger? Not a passenger
Seat Belt Unknown Cycle Helmet
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Other Details

Veh.No. 3	Vehicle type Car		Make	Model	
Manoeuvre	Parked				
Veh. direction from	Parked to Parked	Towing?	No tow or articulation		
Skidded	Skidded				
Veh location at impact (restricted lane)	On main carriageway not in restricted lane				
Junct. location of veh. at 1st impact	Not at or within 20m of junction				
Veh left carriageway?	Did not leave carriageway				
Hit object in c'way?	None				
Hit object off c'way?	None				
First point of impact	Back				
Veh registration no.		Other veh.hit (ref.no)	4	Hit and run	Not hit and run
Drivers age ? yrs	Sex Not know	Breath test	Not Applicable	Driving Lic	
Left Hand Drive	Unknown	Foreign veh.	Not foreign registered vehicle		
Journey purpose	Other				

Veh.No. 4	Vehicle type Car		Make	Model	
Manoeuvre	Parked				
Veh. direction from	Parked to Parked	Towing?	No tow or articulation		
Skidded	No skidding, jack-knifing or overturning				
Veh location at impact (restricted lane)	On main carriageway not in restricted lane				
Junct. location of veh. at 1st impact	Not at or within 20m of junction				
Veh left carriageway?	Did not leave carriageway				
Hit object in c'way?	None				
Hit object off c'way?	None				
First point of impact	Front				
Veh registration no.		Other veh.hit (ref.no)	5	Hit and run	Not hit and run
Drivers age ? yrs	Sex Not know	Breath test	Not Applicable	Driving Lic	
Left Hand Drive	Unknown	Foreign veh.	Not foreign registered vehicle		
Journey purpose	Other				

Veh.No. 5	Vehicle type Car		Make	Model	
Manoeuvre	Parked				
Veh. direction from	Parked to Parked	Towing?	No tow or articulation		
Skidded	No skidding, jack-knifing or overturning				
Veh location at impact (restricted lane)	On main carriageway not in restricted lane				
Junct. location of veh. at 1st impact	Not at or within 20m of junction				
Veh left carriageway?	Did not leave carriageway				
Hit object in c'way?	None				
Hit object off c'way?	None				
First point of impact	Back				
Veh registration no.		Other veh.hit (ref.no)	4	Hit and run	Not hit and run
Drivers age ? yrs	Sex Not know	Breath test	Not Applicable	Driving Lic	
Left Hand Drive	Unknown	Foreign veh.	Not foreign registered vehicle		
Journey purpose	Other				

SEVERITY	District	**Cardiff Road (A4055), Dinas Powys**	Grid Reference
SLIGHT	The Vale of Glamorgan Ref.No 1300233		315600 / 171220 Police Officer Attend: Yes

Date	06/02/2013 Day Wednesday
Time	11:07
Weather	Fine without high winds
Road Surface	Dry
Street Lighting	Daylight

Road A4055 Location Outside 'Dinas Vets Surgery', Cardiff Road, Dinas Powys

Description of Accident it Appears V1 was Driving Too Close to the Centre of the Road & V2 which was turning right May Have Been Slightly over the Central Line.

SITE DETAILS

Speed Limit	30 MPH
Carriageway	Single carriageway
Junction Detail	T or staggered junction
Junction Control	Give way or uncontrolled
2nd Road Number	U
Pedestrian Facilities	None within 50 metres No physical crossing facility within 50 n

SPECIAL SITE CONDITIONS
None

CARRIAGEWAY HAZARDS
None

VEHICLES INVOLVED 2

Veh.No. 1 Vehicle type Van/Goods < 3.5t Make Model
Manoeuvre Waiting to turn right
Veh. direction from East to North Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Approaching junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Offside
Veh registration no. Other veh.hit (ref.no) 2 Hit and run Not hit and run
Drivers age 51 yrs Sex Male Breath test Not requested Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Journey as part of work

Veh.No. 2 Vehicle type Car Make Model
Manoeuvre Going ahead other
Veh. direction from West to East Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Approaching junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Offside
Veh registration no. Other veh.hit (ref.no) 1 Hit and run Not hit and run
Drivers age 23 yrs Sex Male Breath test Not requested Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

CASUALTIES INVOLVED 1

Cas No 3 Cas Class Passenger Veh ref No 2
Severity SLIGHT Age 23 yrs Sex Female Post code
Car Passenger? Front seat passenger PSV Passenger? Not a passenger
Seat Belt Unknown Cycle Helmet
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Other Details

SEVERITY	District	**Cardiff Road (A4055), Dinas Powys**	Grid Reference
SLIGHT	The Vale of Glamorgan Ref.No 1300448		315680 / 171300 Police Officer Attend: Yes

Date	10/03/2013 Day Sunday
Time	13:37
Weather	Fine without high winds
Road Surface	Dry
Street Lighting	Daylight

Road A4055 Location Cardiff Road, Dinas Powys, Vale of Glamorgan

Description of Accident V1 Collided with the Rear of V2 which was Waiting to Go ahead but Held up

SITE DETAILS

Speed Limit	30 MPH
Carriageway	Single carriageway
Junction Detail	Not at or within 20 metres of junction
Junction Control	
2nd Road Number	
Pedestrian Facilities	None within 50 metres No physical crossing facility within 50 n

SPECIAL SITE CONDITIONS
None

CARRIAGEWAY HAZARDS
None

VEHICLES INVOLVED 2

Veh.No. 1 Vehicle type Car Make Model
Manoeuvre Going ahead other
Veh. direction from West to East Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Not at or within 20m of junction
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Veh registration no. Other veh.hit (ref.no) 2 Hit and run Not hit and run
Drivers age 34 yrs Sex Male Breath test Not requested Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

Veh.No. 2 Vehicle type Taxi Make Model
Manoeuvre Waiting to go ahead but held up
Veh. direction from West to East Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Not at or within 20m of junction
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Back
Veh registration no. Other veh.hit (ref.no) 1 Hit and run Not hit and run
Drivers age 65 yrs Sex Male Breath test Not requested Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

CASUALTIES INVOLVED 2

Cas No 2 Cas Class Driver or Rider Veh ref No 2
Severity SLIGHT Age 65 yrs Sex Male Post code
Car Passenger? Not a passenger PSV Passenger? Not a passenger
Seat Belt Unknown Cycle Helmet
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Cas No 3 Cas Class Passenger Veh ref No 2
Severity SLIGHT Age 59 yrs Sex Female Post code
Car Passenger? Front seat passenger PSV Passenger? Not a passenger
Seat Belt Unknown Cycle Helmet
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Other Details

SEVERITY	District	**Cardiff Road (A4055), Dinas Powys**	Grid Reference
SLIGHT	The Vale of Glamorgan Ref.No 1300706		316330 / 171800 Police Officer Attend: Yes

Date	30/04/2013 Day Tuesday	Road A4055	Location A4055 at Junction with Georges Row, Dinas Powys
Time	08:40		
Weather	Fine without high winds	Description of Accident	V1 Collided with V2
Road Surface	Dry		
Street Lighting	Daylight		

SITE DETAILS

Speed Limit	30 MPH
Carriageway	Single carriageway
Junction Detail	T or staggered junction
Junction Control	Give way or uncontrolled
2nd Road Number	U
Pedestrian Facilities	None within 50 metres No physical crossing facility within 50 n

SPECIAL SITE CONDITIONS
None

CARRIAGEWAY HAZARDS
None

VEHICLES INVOLVED 2

Veh.No. 1 Vehicle type Car Make Model
Manoeuvre Slowing or stopping
Veh. direction from East to West Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Approaching junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Veh registration no. Other veh.hit (ref.no) 2 Hit and run Not hit and run
Drivers age 18 yrs Sex Male Breath test Not requested Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

Veh.No. 2 Vehicle type Van/Goods < 3.5t Make Model
Manoeuvre Slowing or stopping
Veh. direction from East to West Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Approaching junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Back
Veh registration no. Other veh.hit (ref.no) 1 Hit and run Not hit and run
Drivers age 39 yrs Sex Male Breath test Not requested Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

CASUALTIES INVOLVED 1

Cas No 2 Cas Class Driver or Rider Veh ref No 2
Severity SLIGHT Age 39 yrs Sex Male Post code

Car Passenger?	Not a passenger	PSV Passenger?	Not a passenger
Seat Belt	Unknown	Cycle Helmet	
Ped Movement	Not applicable		
Ped Location	Not applicable		
Ped Direction to	Not applicable		
School Pupil	Other		
Roadworker injured			

Other Details

SEVERITY	District		
SLIGHT	Ref.No 1300912	**Cardiff Road (A4055), Dinas Powys**	Grid Reference 315280 / 170930
	District The Vale of Glamorgan		Police Officer Attend: Yes

Date	30/05/2013 Day Thursday
Time	08:14
Weather	Fine without high winds
Road Surface	Dry
Street Lighting	Daylight

Road U Location A4055 Cardiff Road J/W Station Road, Dinas Powys

Description of Accident: Driver V1 Has Pulled out from Junction and Failed to See V2 and a Collison Has Occurred

SITE DETAILS

Speed Limit	30 MPH
Carriageway	Single carriageway
Junction Detail	T or staggered junction
Junction Control	Give way or uncontrolled
2nd Road Number	A4055
Pedestrian Facilities	None within 50 metres
	No physical crossing facility within 50 n

SPECIAL SITE CONDITIONS
None

CARRIAGEWAY HAZARDS
None

VEHICLES INVOLVED 2

Veh.No. 1 Vehicle type Car Make Model
Manoeuvre Turning right
Veh. direction from East to North Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Entering main road
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Veh registration no. Other veh.hit (ref.no) 2 Hit and run Not hit and run
Drivers age 72 yrs Sex Male Breath test Negative Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

Veh.No. 2 Vehicle type Car Make Model
Manoeuvre Going ahead other
Veh. direction from North to South Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Approaching junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Veh registration no. Other veh.hit (ref.no) 1 Hit and run Not hit and run
Drivers age 24 yrs Sex Female Breath test Negative Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Journey as part of work

CASUALTIES INVOLVED 2

Cas No 2 Cas Class Driver or Rider Veh ref No 2
Severity SLIGHT Age 24 yrs Sex Female Post code
Car Passenger? Not a passenger PSV Passenger? Not a passenger
Seat Belt Unknown Cycle Helmet
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Cas No 3 Cas Class Passenger Veh ref No 2
Severity SLIGHT Age 26 yrs Sex Male Post code
Car Passenger? Front seat passenger PSV Passenger? Not a passenger
Seat Belt Unknown Cycle Helmet
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Other Details

SEVERITY	District	**Cardiff Road (A4055), Dinas Powys**	Grid Reference
SLIGHT	The Vale of Glamorgan Ref.No 1301418		315290 / 170930 Police Officer Attend: Yes

Date	09/08/2013 Day Friday	Road U	Location Station Road, Dinas Powys
Time	16:18		
Weather	Fine without high winds	Description of Accident	V1 Has Pulled out of Junction into Road Directly in Path of Oncoming V2 and a Collison Has Occurred.
Road Surface	Dry		
Street Lighting	Daylight		

SITE DETAILS

Speed Limit	30 MPH
Carriageway	Single carriageway
Junction Detail	T or staggered junction
Junction Control	Give way or uncontrolled
2nd Road Number	A4055
Pedestrian Facilities	None within 50 metres No physical crossing facility within 50 n

SPECIAL SITE CONDITIONS
None

CARRIAGEWAY HAZARDS
None

VEHICLES INVOLVED 2

Veh.No. 1 Vehicle type Car Make Model
Manoeuvre Moving off
Veh. direction from North to Northeast Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Approaching junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Veh registration no. Other veh.hit (ref.no) 2 Hit and run Not hit and run
Drivers age 71 yrs Sex Female Breath test Negative Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

Veh.No. 2 Vehicle type Car Make Model
Manoeuvre Going ahead right hand bend
Veh. direction from Southwest to Northeast Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Approaching junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Veh registration no. Other veh.hit (ref.no) 1 Hit and run Not hit and run
Drivers age 61 yrs Sex Male Breath test Negative Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Commuting to/from work

CASUALTIES INVOLVED 2

Cas No 1 Cas Class Driver or Rider Veh ref No 1
Severity SLIGHT Age 71 yrs Sex Female Post code
Car Passenger? Not a passenger PSV Passenger? Not a passenger
Seat Belt Unknown Cycle Helmet
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Cas No 2 Cas Class Driver or Rider Veh ref No 2
Severity SLIGHT Age 61 yrs Sex Male Post code
Car Passenger? Not a passenger PSV Passenger? Not a passenger
Seat Belt Unknown Cycle Helmet
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Other Details

SEVERITY	District		Grid Reference
SLIGHT	District The Vale of Glamorgan Ref.No 1301814	**Cardiff Road (A4055), Dinas Powys**	315980 / 171260 Police Officer Attend: Yes

Date 05/10/2013 Day Saturday
Time 17:02
Weather Fine without high winds
Road Surface Dry
Street Lighting Daylight

Road U Location Castle Drive, Dinas Powys.

Description of Accident V2 Has Pulled out of Junction as V1 Has Started to Make right Turn and Has Collided with Offside of V2.

SITE DETAILS
Speed Limit 30 MPH
Carriageway Single carriageway
Junction Detail T or staggered junction
Junction Control Give way or uncontrolled
2nd Road Number U
Pedestrian Facilities None within 50 metres
No physical crossing facility within 50 n

SPECIAL SITE CONDITIONS
None

CARRIAGEWAY HAZARDS
None

VEHICLES INVOLVED 2

Veh.No. 1 Vehicle type Car Make Model
Manoeuvre Turning right
Veh. direction from Northeast to West Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Cleared junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Veh registration no. Other veh.hit (ref.no) 2 Hit and run Not hit and run
Drivers age 30 yrs Sex Male Breath test Not requested Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

Veh.No. 2 Vehicle type Car Make Model
Manoeuvre Going ahead other
Veh. direction from Southeast to Northwest Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Cleared junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Offside
Veh registration no. Other veh.hit (ref.no) 1 Hit and run Not hit and run
Drivers age 60 yrs Sex Male Breath test Not requested Driving Lic
Left Hand Drive Unknown Foreign veh. Not foreign registered vehicle
Journey purpose Other

CASUALTIES INVOLVED 2

Cas No 1 Cas Class Driver or Rider Veh ref No 1
Severity SLIGHT Age 30 yrs Sex Male Post code
Car Passenger? Not a passenger PSV Passenger? Not a passenger
Seat Belt Unknown Cycle Helmet
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Cas No 2 Cas Class Driver or Rider Veh ref No 2
Severity SLIGHT Age 60 yrs Sex Male Post code
Car Passenger? Not a passenger PSV Passenger? Not a passenger
Seat Belt Unknown Cycle Helmet
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Other Details

SEVERITY	District	**Cardiff Road (A4055), Dinas Powys**	Grid Reference
SLIGHT	Ref.No The Vale of Glamorgan 1302278		315630 / 171250
			Police Officer Attend: Yes

Date	27/11/2013 Day Wednesday
Time	14:30
Weather	Fine without high winds
Road Surface	Dry
Street Lighting	Daylight

Road A4055 Location Cardiff Road, Dinas Powys, Opposite Murch Primary, Vale of Glamorgan

Description of Accident V1 Had to Stop Sharply to Avoid a Pedestrian. C1 Has Been Knocked Forward in the Bus and Sustained a Head Injury

SITE DETAILS

Speed Limit	30 MPH
Carriageway	Single carriageway
Junction Detail	Not at or within 20 metres of junction
Junction Control	
2nd Road Number	
Pedestrian Facilities	None within 50 metres No physical crossing facility within 50 n

SPECIAL SITE CONDITIONS
None

CARRIAGEWAY HAZARDS
None

VEHICLES INVOLVED 1

Veh.No. 1	Vehicle type Bus or Coach		Make	Model
Manoeuvre	Slowing or stopping			
Veh. direction from	Northeast to Southwest	Towing?	No tow or articulation	
Skidded	No skidding, jack-knifing or overturning			
Veh location at impact (restricted lane)	On main carriageway not in restricted lane			
Junct. location of veh. at 1st impact	Not at or within 20m of junction			
Veh left carriageway?	Did not leave carriageway			
Hit object in c'way?	None			
Hit object off c'way?	None			
First point of impact	Did not impact			
Veh registration no.		Other veh.hit (ref.no)	0	Hit and run Not hit and run
Drivers age 44 yrs	Sex Male	Breath test	Not requested	Driving Lic
Left Hand Drive	Unknown	Foreign veh.	Not foreign registered vehicle	
Journey purpose	Other			

CASUALTIES INVOLVED 1

Cas No 2	Cas Class Passenger		Veh ref No 1
Severity SLIGHT	Age 91 yrs	Sex Female	Post code
Car Passenger?	Not a passenger	PSV Passenger?	Seated passenger
Seat Belt	Unknown	Cycle Helmet	
Ped Movement	Not applicable		
Ped Location	Not applicable		
Ped Direction to	Not applicable		
School Pupil	Other		
Roadworker injured			

Other Details

SEVERITY	District	**Cardiff Road (A4055), Dinas Powys**	Grid Reference
SERIOUS	The Vale of Glamorgan Ref.No 1400568		315943 / 171559 Police Officer Attend: Yes

Date	25/03/2014 Day Tuesday
Time	19:13
Weather	Fine without high winds
Road Surface	Dry
Street Lighting	Dark: street lights present and lit

Road A4055 Location CARDIFF ROAD J/W ST DAVID AVENUE DINAS POWYS SOUTH GLAMORGAN

Description of Accident V1 COLLIDED WITH PEDESTRIAN WHO STEPPED INTO THE CARRIAGEWAY FROM THE NEARSIDE OF THE VEHICLE.

SITE DETAILS

Speed Limit	30 MPH
Carriageway	Single carriageway
Junction Detail	T or staggered junction
Junction Control	Give way or uncontrolled
2nd Road Number	U
Pedestrian Facilities	None within 50 metres No physical crossing facility within 50 n

SPECIAL SITE CONDITIONS
None

CARRIAGEWAY HAZARDS
None

VEHICLES INVOLVED 1

Veh.No. 1 Vehicle type Car Make 000000000 Model 000000000
Manoeuvre Going ahead other
Veh. direction from Southwest to East Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Cleared junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Nearside
Veh registration no. Other veh.hit (ref.no) 0 Hit and run Not hit and run
Drivers age 40 yrs Sex Female Breath test Not requested Driving Lic
Left Hand Drive No Foreign veh.
Journey purpose Not Known

CASUALTIES INVOLVED 1

Cas No 1 Cas Class Pedestrian Veh ref No 1
Severity SERIOUS Age 65 yrs Sex Male Post code
Car Passenger? Not a passenger PSV Passenger? Not a passenger
Seat Belt Not applicable Cycle Helmet Not a cyclist
Ped Movement Crossing from driver's nearside
Ped Location In carriageway, crossing elsewhere
Ped Direction to South bound
School Pupil Other
Roadworker injured Not applicable

Other Details

SEVERITY	District	**Cardiff Road (A4055), Dinas Powys**	Grid Reference
SERIOUS	The Vale of Glamorgan Ref.No 1400813		315885 / 171545 Police Officer Attend: Yes

Date	02/05/2014 Day Friday
Time	09:30
Weather	Fine without high winds
Road Surface	Dry
Street Lighting	Daylight

Road A4055 Location CARDIFF ROAD DINAS POWYS.

Description of Accident V1 A MOTORCYCLE FILTERING THROUGH HEAVY TRAFFIC RIDER HAS INDICATED TO MAKE TURN AND WHILST ATTEMPTING TO TURN HAS COLLIDED WITH V2.

SITE DETAILS

Speed Limit	30 MPH
Carriageway	Single carriageway
Junction Detail	Using private drive or entrance
Junction Control	Give way or uncontrolled
2nd Road Number	U
Pedestrian Facilities	None within 50 metres No physical crossing facility within 50 n

SPECIAL SITE CONDITIONS
None

CARRIAGEWAY HAZARDS
None

VEHICLES INVOLVED 2

Veh.No. 1 Vehicle type M/cycle <= 50cc Make 000000000 Model 000000000
Manoeuvre Turning right
Veh. direction from Southwest to South Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Approaching junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Veh registration no. Other veh.hit (ref.no) 0 Hit and run Not hit and run
Drivers age 20 yrs Sex Male Breath test Not provided (medical r Driving Lic
Left Hand Drive No Foreign veh.
Journey purpose Not Known

Veh.No. 2 Vehicle type Car Make 000000000 Model 000000000
Manoeuvre Moving off
Veh. direction from Southwest to Northeast Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Approaching junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Back
Veh registration no. Other veh.hit (ref.no) 0 Hit and run Not hit and run
Drivers age 26 yrs Sex Male Breath test Negative Driving Lic
Left Hand Drive No Foreign veh.
Journey purpose Not Known

CASUALTIES INVOLVED 1

Cas No 1 Cas Class Driver or Rider Veh ref No 1
Severity SERIOUS Age 20 yrs Sex Male Post code

Car Passenger?	Not a passenger	PSV Passenger?	Not a passenger
Seat Belt	Not applicable	Cycle Helmet	Not a cyclist
Ped Movement	Not applicable		
Ped Location	Not applicable		
Ped Direction to	Not applicable		
School Pupil	Other		
Roadworker injured			

Other Details

SEVERITY	District	**Cardiff Road (A4055), Dinas Powys**	Grid Reference
SLIGHT	The Vale of Glamorgan Ref.No 1401602		315294 / 170929 Police Officer Attend: Yes

Date	04/09/2014 Day Thursday	Road U	Location CARDIFF ROAD J/W STATION ROAD, DINAS POWYS
Time	07:52		
Weather	Fine without high winds	Description of Accident	V1 HAS PULLED OUT OF JUNCTION INTO PATH OF V2.
Road Surface	Dry		
Street Lighting	Daylight		

SITE DETAILS

Speed Limit	30 MPH
Carriageway	Single carriageway
Junction Detail	T or staggered junction
Junction Control	Give way or uncontrolled
2nd Road Number	A4055
Pedestrian Facilities	None within 50 metres No physical crossing facility within 50 n

SPECIAL SITE CONDITIONS
None

CARRIAGEWAY HAZARDS
None

VEHICLES INVOLVED 2

Veh.No. 1 Vehicle type Car Make 000000000 Model 000000000
Manoeuvre Turning right
Veh. direction from Northwest to Southwest Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Approaching junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Veh registration no. Other veh.hit (ref.no) 0 Hit and run Not hit and run
Drivers age 27 yrs Sex Male Breath test Negative Driving Lic
Left Hand Drive No Foreign veh.
Journey purpose Not Known

Veh.No. 2 Vehicle type Car Make 000000000 Model 000000000
Manoeuvre Going ahead other
Veh. direction from Southeast to Northeast Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Approaching junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Nearside
Veh registration no. Other veh.hit (ref.no) 0 Hit and run Not hit and run
Drivers age 63 yrs Sex Male Breath test Negative Driving Lic
Left Hand Drive No Foreign veh.
Journey purpose Not Known

CASUALTIES INVOLVED 1

Cas No 3 Cas Class Passenger Veh ref No 2
Severity SLIGHT Age 63 yrs Sex Female Post code
Car Passenger? Front seat passenger PSV Passenger? Not a passenger
Seat Belt Unknown Cycle Helmet Not a cyclist
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Other Details

SEVERITY	District	**Cardiff Road (A4055), Dinas Powys**	Grid Reference
SLIGHT	The Vale of Glamorgan Ref.No 1401666		315666 / 171288 Police Officer Attend: Yes

Date	09/09/2014 Day Tuesday
Time	17:46
Weather	Fine without high winds
Road Surface	Dry
Street Lighting	Daylight

Road A4055 Location CARDIFF ROAD J/W GREENFIELD AVENUE, DINAS POWYS

Description of Accident V1 HAS FAILED TO OBSERVE V2 SLOWING DOWN IN TRAFFIC AND HAS COLLIDED WITH REAR OF V2.

SITE DETAILS

Speed Limit	30 MPH
Carriageway	Single carriageway
Junction Detail	T or staggered junction
Junction Control	Give way or uncontrolled
2nd Road Number	U
Pedestrian Facilities	None within 50 metres No physical crossing facility within 50 n

SPECIAL SITE CONDITIONS
None

CARRIAGEWAY HAZARDS
None

VEHICLES INVOLVED 2

Veh.No. 1 Vehicle type Car Make 000000000 Model 000000000
Manoeuvre Going ahead other
Veh. direction from Southwest to Northeast Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Approaching junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Front
Veh registration no. Other veh.hit (ref.no) 0 Hit and run Not hit and run
Drivers age 23 yrs Sex Female Breath test Negative Driving Lic
Left Hand Drive No Foreign veh.
Journey purpose Not Known

Veh.No. 2 Vehicle type Car Make 000000000 Model 000000000
Manoeuvre Slowing or stopping
Veh. direction from Southwest to Northeast Towing? No tow or articulation
Skidded No skidding, jack-knifing or overturning
Veh location at impact (restricted lane) On main carriageway not in restricted lane
Junct. location of veh. at 1st impact Approaching junction or waiting
Veh left carriageway? Did not leave carriageway
Hit object in c'way? None
Hit object off c'way? None
First point of impact Back
Veh registration no. Other veh.hit (ref.no) 0 Hit and run Not hit and run
Drivers age 35 yrs Sex Female Breath test Negative Driving Lic
Left Hand Drive No Foreign veh.
Journey purpose Not Known

CASUALTIES INVOLVED 1

Cas No 1 Cas Class Driver or Rider Veh ref No 1
Severity SLIGHT Age 23 yrs Sex Female Post code
Car Passenger? Not a passenger PSV Passenger? Not a passenger
Seat Belt Worn but not indep Cycle Helmet Not a cyclist
Ped Movement Not applicable
Ped Location Not applicable
Ped Direction to Not applicable
School Pupil Other
Roadworker injured

Other Details

SEVERITY	District			Grid Reference	
SLIGHT	Ref.No	The Vale of Glamorgan 1402333	**Cardiff Road (A4055), Dinas Powys**		315284 / 170917
				Police Officer Attend:	Yes

Date	21/12/2014 Day Sunday	Road	U
Time	16:42	Location	CARDIFF ROAD J/W STATION ROAD, DINAS POWYS
Weather	Fine without high winds		
Road Surface	Dry	Description of Accident	V1 PULLED OUT OF THE JUNCTION AND COLLIDED WITH V2
Street Lighting	Dark: street lights present and lit		

SITE DETAILS

Speed Limit	30 MPH
Carriageway	Single carriageway
Junction Detail	T or staggered junction
Junction Control	Give way or uncontrolled
2nd Road Number	A4055
Pedestrian Facilities	None within 50 metres No physical crossing facility within 50 n

SPECIAL SITE CONDITIONS

None

CARRIAGEWAY HAZARDS

None

VEHICLES INVOLVED 2

Veh.No. 1 Vehicle type Car Make 000000000 Model 000000000

Manoeuvre	Turning right		
Veh. direction from	North to Southwest	Towing?	No tow or articulation
Skidded	No skidding, jack-knifing or overturning		
Veh location at impact (restricted lane)	On main carriageway not in restricted lane		
Junct. location of veh. at 1st impact	Entering main road		
Veh left carriageway?	Did not leave carriageway		
Hit object in c'way?	None		
Hit object off c'way?	None		
First point of impact	Front		
Veh registration no.		Other veh.hit (ref.no)	0
Hit and run	Not hit and run		
Drivers age	48 yrs	Sex	Female
Breath test	Negative	Driving Lic	
Left Hand Drive	No	Foreign veh.	
Journey purpose	Other		

Veh.No. 2 Vehicle type Car Make 000000000 Model 000000000

Manoeuvre	Going ahead right hand bend		
Veh. direction from	Southwest to Northeast	Towing?	No tow or articulation
Skidded	No skidding, jack-knifing or overturning		
Veh location at impact (restricted lane)	On main carriageway not in restricted lane		
Junct. location of veh. at 1st impact	Mid junction - on roundabout or main road		
Veh left carriageway?	Did not leave carriageway		
Hit object in c'way?	None		
Hit object off c'way?	None		
First point of impact	Front		
Veh registration no.		Other veh.hit (ref.no)	0
Hit and run	Not hit and run		
Drivers age	45 yrs	Sex	Male
Breath test	Negative	Driving Lic	
Left Hand Drive	No	Foreign veh.	
Journey purpose	Other		

CASUALTIES INVOLVED 2

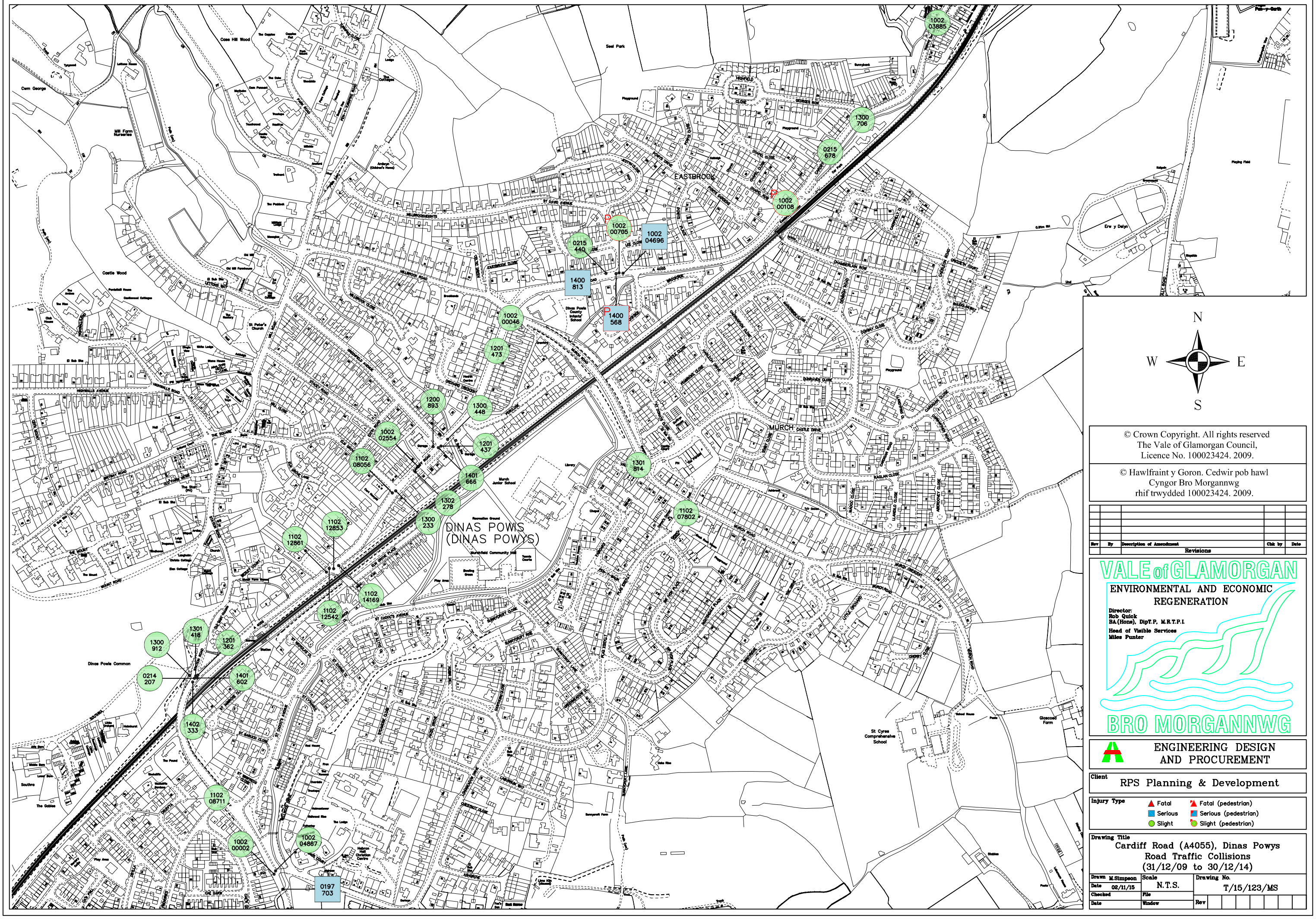
Cas No 1 Cas Class Driver or Rider Veh ref No 1
Severity SLIGHT Age 48 yrs Sex Female Post code

Car Passenger?	Not a passenger	PSV Passenger?	Not a passenger
Seat Belt	Unknown	Cycle Helmet	Not a cyclist
Ped Movement	Not applicable		
Ped Location	Not applicable		
Ped Direction to	Not applicable		
School Pupil	Other		
Roadworker injured			

Cas No 2 Cas Class Driver or Rider Veh ref No 2
Severity SLIGHT Age 45 yrs Sex Male Post code

Car Passenger?	Not a passenger	PSV Passenger?	Not a passenger
Seat Belt	Unknown	Cycle Helmet	Not a cyclist
Ped Movement	Not applicable		
Ped Location	Not applicable		
Ped Direction to	Not applicable		
School Pupil	Other		
Roadworker injured			

Other Details



Rev	By	Description of Amendment	Chk by	Date
		Revisions		

VALE of GLAMORGAN

ENVIRONMENTAL AND ECONOMIC REGENERATION

Director:
Rob Quick
BA(Hons), DipT.P, M.R.T.P.I.

Head of Visible Services
Miles Punter

BRO MORGANNWG

ENGINEERING DESIGN AND PROCUREMENT

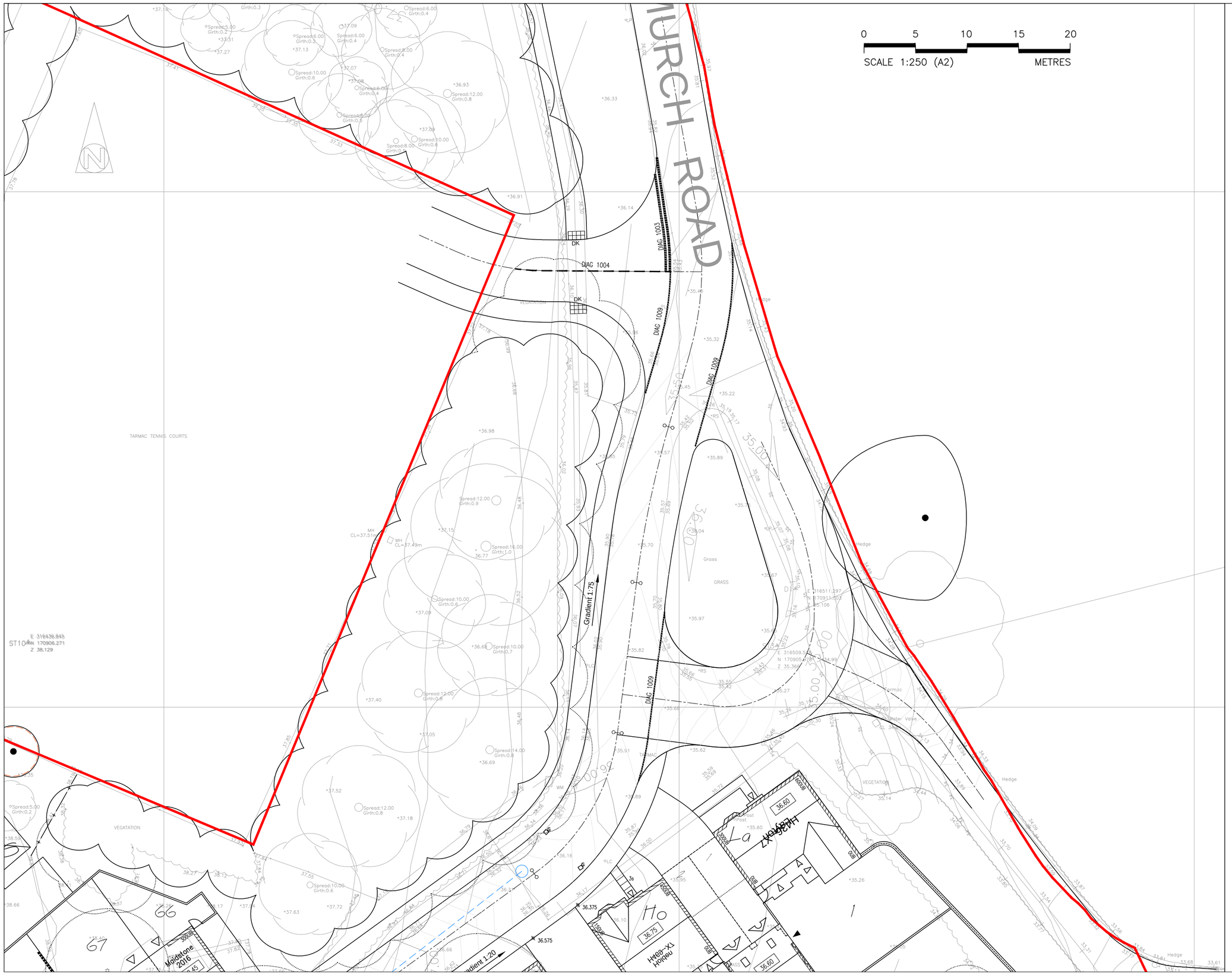
Client: RPS Planning & Development

Injury Type
- Fatal
- Fatal (pedestrian)
- Serious
- Serious (pedestrian)
- Slight
- Slight (pedestrian)

Drawing Title
Cardiff Road (A4055), Dinas Powys
Road Traffic Collisions
(31/12/09 to 30/12/14)

Drawn M.Simpson	Scale N.T.S.	Drawing No. T/15/123/MS	
Date 02/11/15			
Checked	File	Rev	
Date	Window		

APPENDIX E – SITE ACCESS ARRANGEMENTS



GENERAL NOTES

1. Do Not Scale
2. The contractor is to check and verify all buildings and site dimensions and levels, including sewer invert levels, before works start on site. The contractor is to comply in all aspects with the current building legislation, British Standards, building regulations etc.
3. Positions of existing services/statutory undertakers apparatus adjacent to or crossing proposed excavations are to be checked by the contractor prior to starting work
4. This drawing is to be read in conjunction with and checked against all other drawings,Engineering Details, Specification and any structural, geotechnical or other specialist document provided.
5. Any anomaly or contradiction between any of the above is to be reported to BDW South Wales.
6. This drawing is schematic for clarity only, positions of pipe runs and manholes may vary on site due to site conditions.

.

Revisions

Project: St Cyres School
Murch, Dinas Powys

Client: BARRATT HOMES | DAVID WILSON HOMES

Drawing: Site Access
General Arrabgement

Scale: 1:250 @ A2

Date: August 2017

Drawn by: SJD

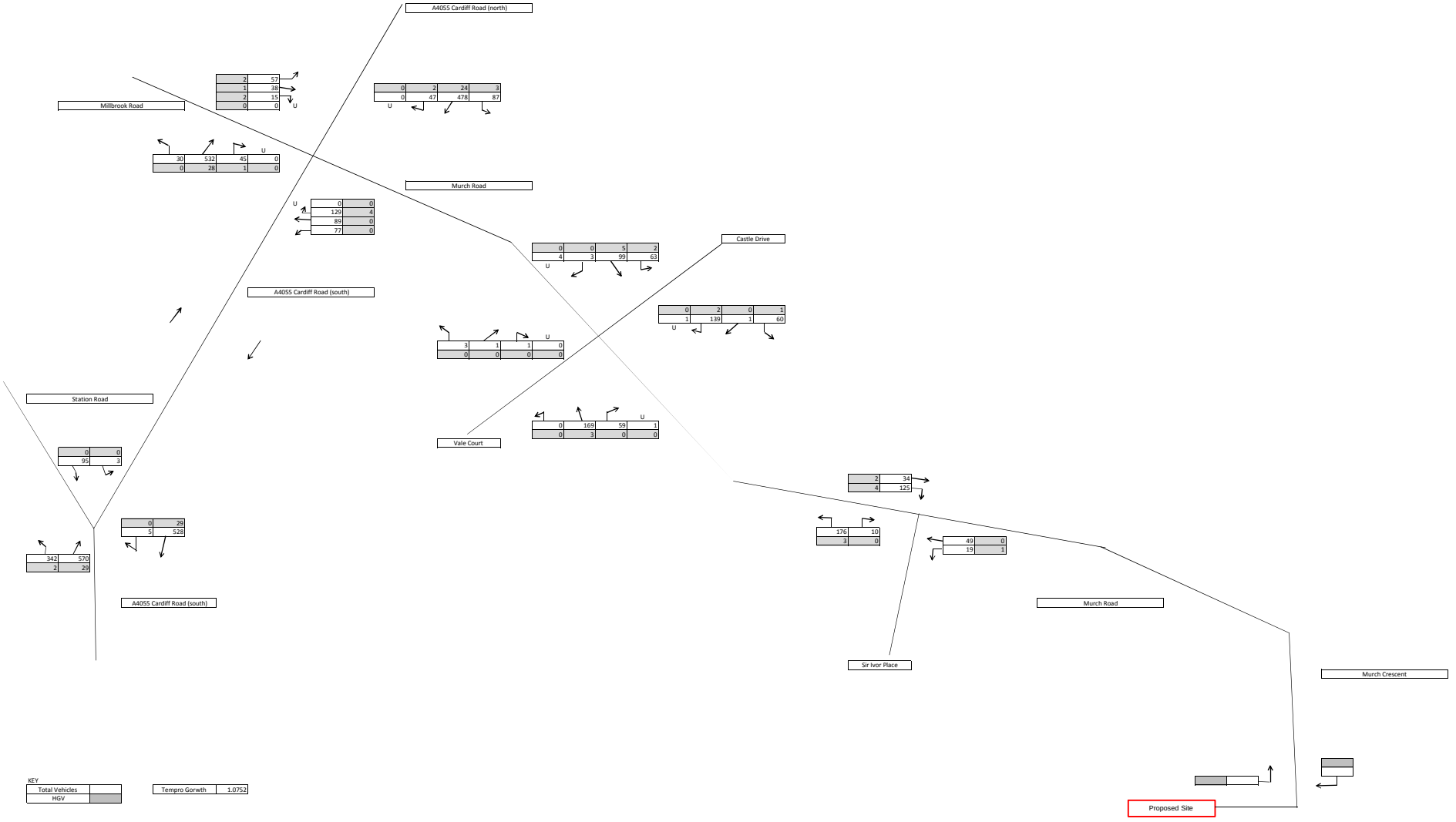
Drawing No: 10069-002

Rev:

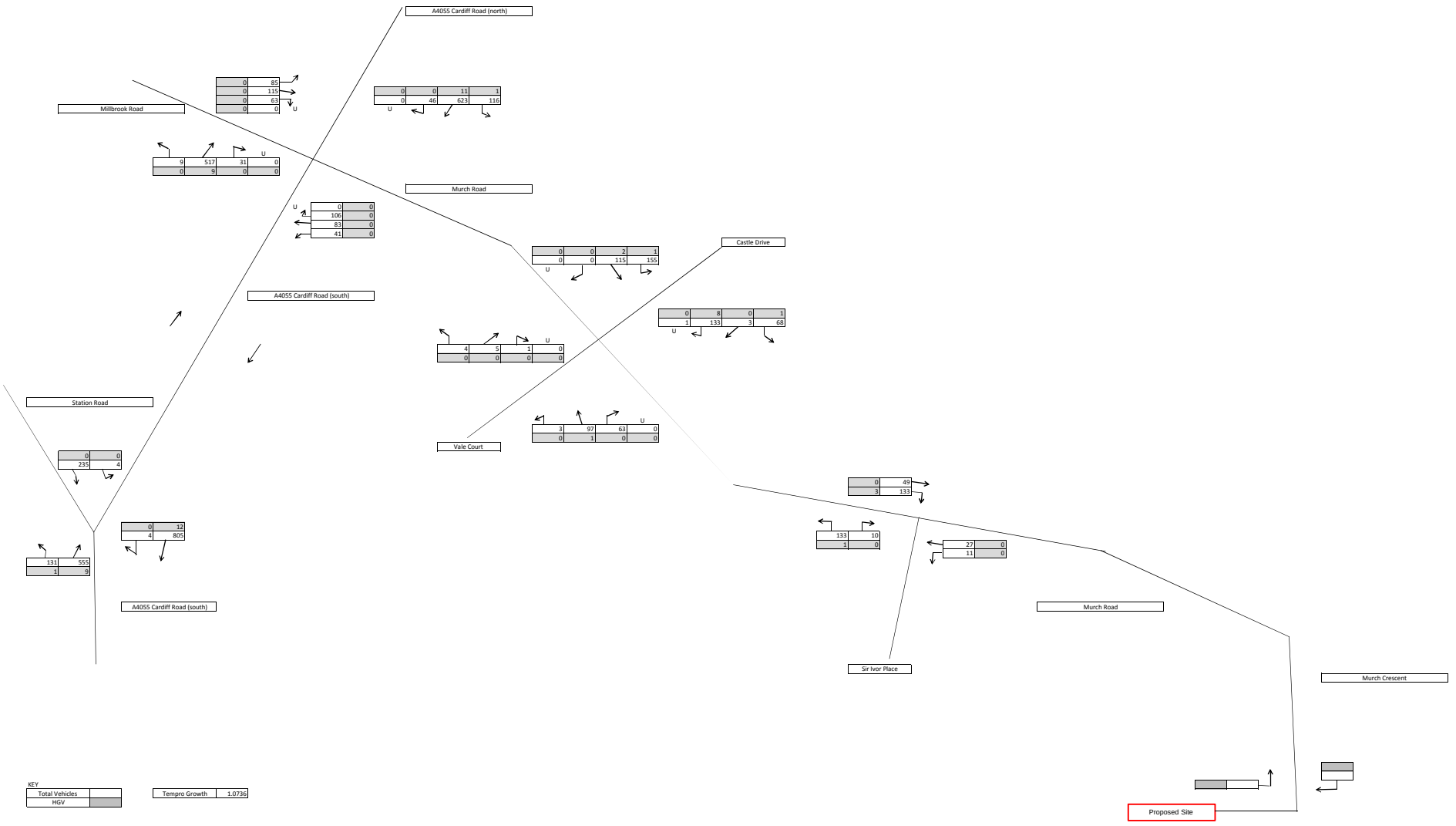
PHOENIX DESIGN Partnership Ltd.
Unit 9, Westway Garage, Marksbury, Bath. BA2 9HN
tel. 01761 479950
Titan House, Lewis Road, Cardiff. CF24 5BS
tel. 029 2049 0771
email. enquiries@phoenixdp.co.uk www.phoenixdp.co.uk

Drg.Status: PLANNING

APPENDIX F – FUTURE YEAR TRAFFIC FLOW MODEL

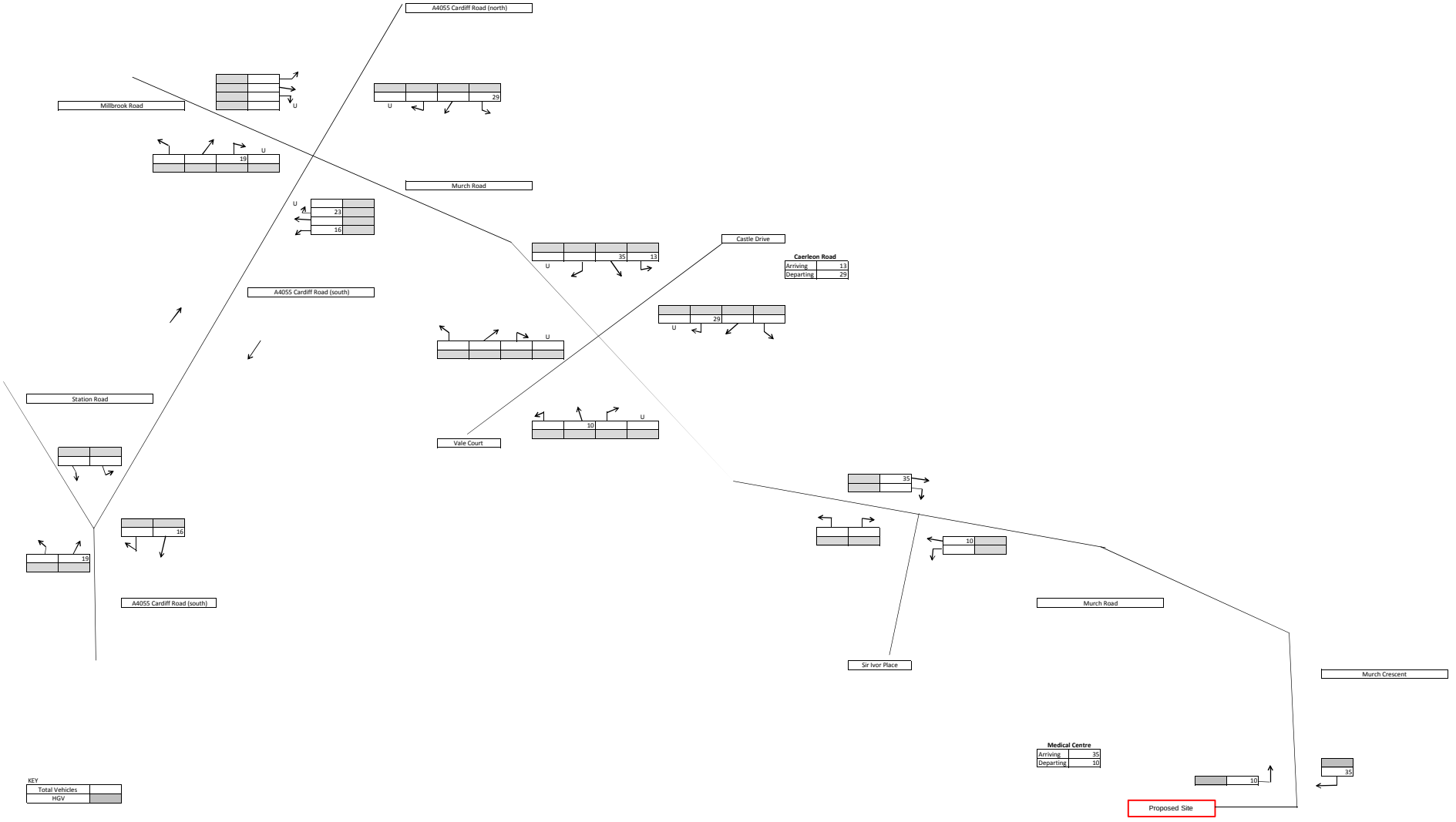


RPS	Job No.	JNY8501	Rev Date.	13/10/2015	St Cyres Lower School
	Drawing No.		Authorised		Traffic Flows Baseline 2020 AM Peak
	Drawn by	AN	Checked by:		

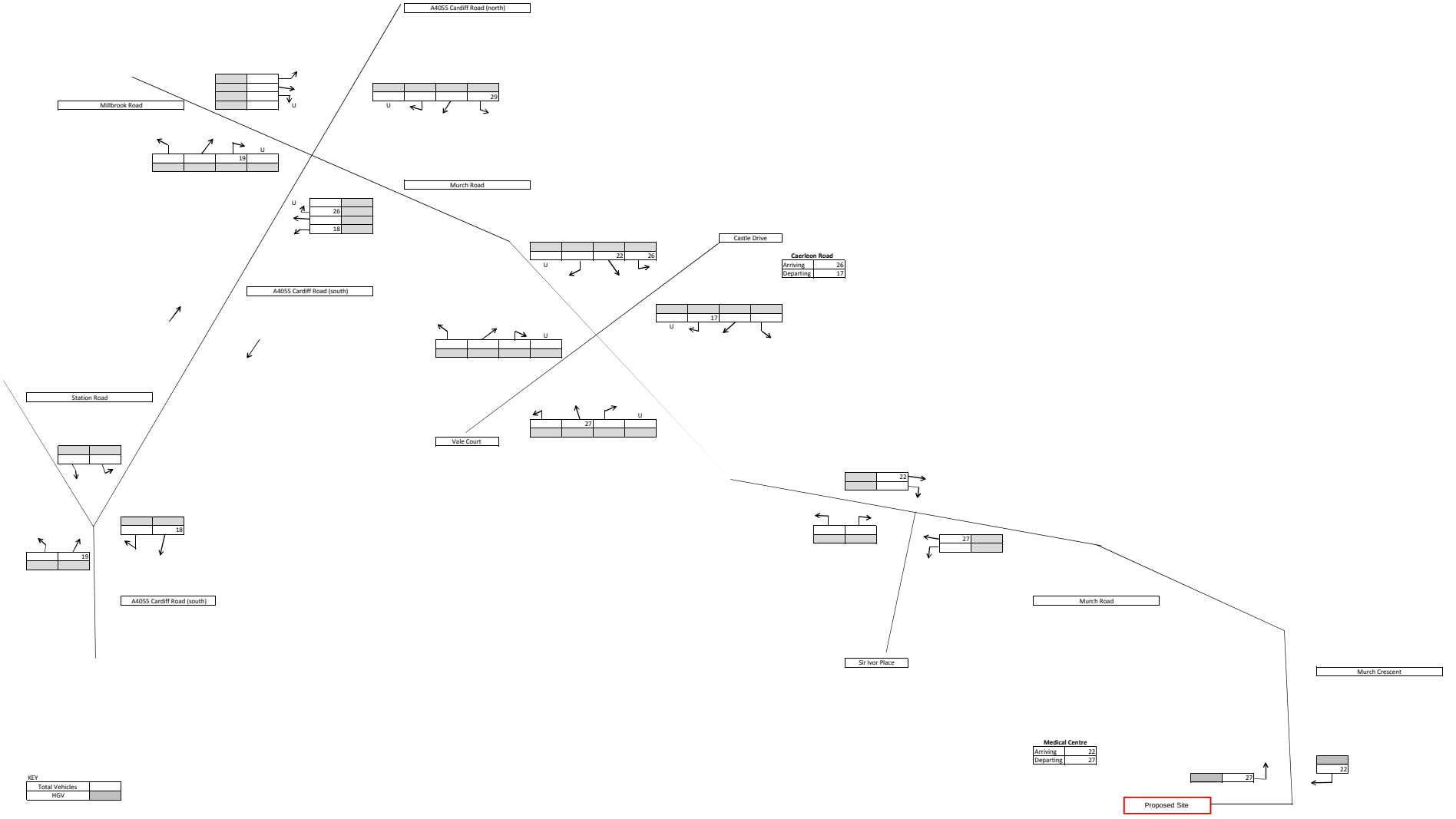


RPS	Job No.	JNY8501	Rev Date.	13/10/2015	St Cyres Lower School
	Drawing No.		Authorised		Traffic Flows Baseline 2020 PM Peak
	Drawn by	AN	Checked by:		

APPENDIX G – COMMITTED TRAFFIC FLOW MODEL

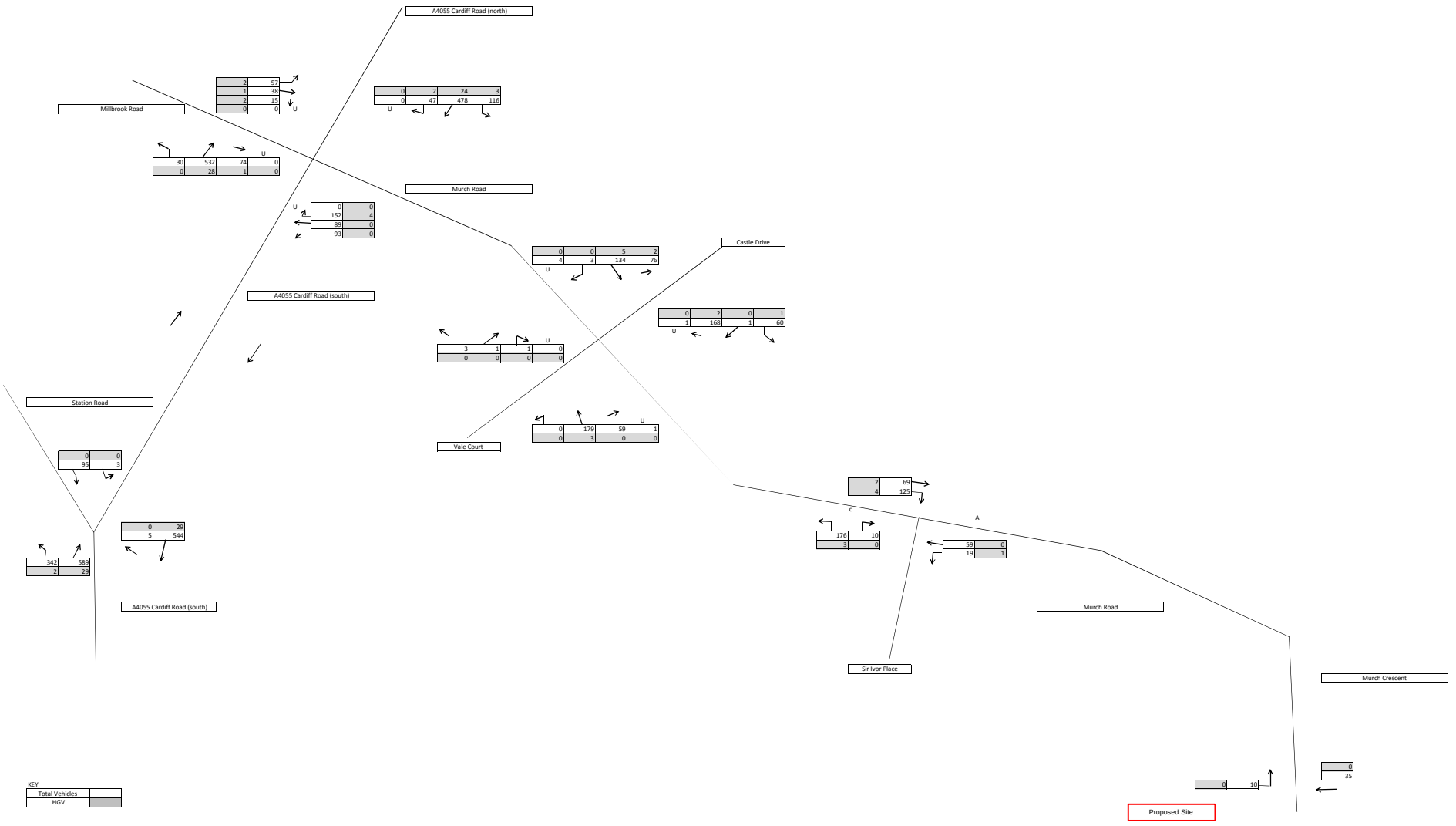


RPS	Job No.	JNY8501	Rev Date.	13/10/2015	St Cyres Lower School
	Drawing No.		Authorised		Committed Development AM
	Drawn by	AN	Checked by:		

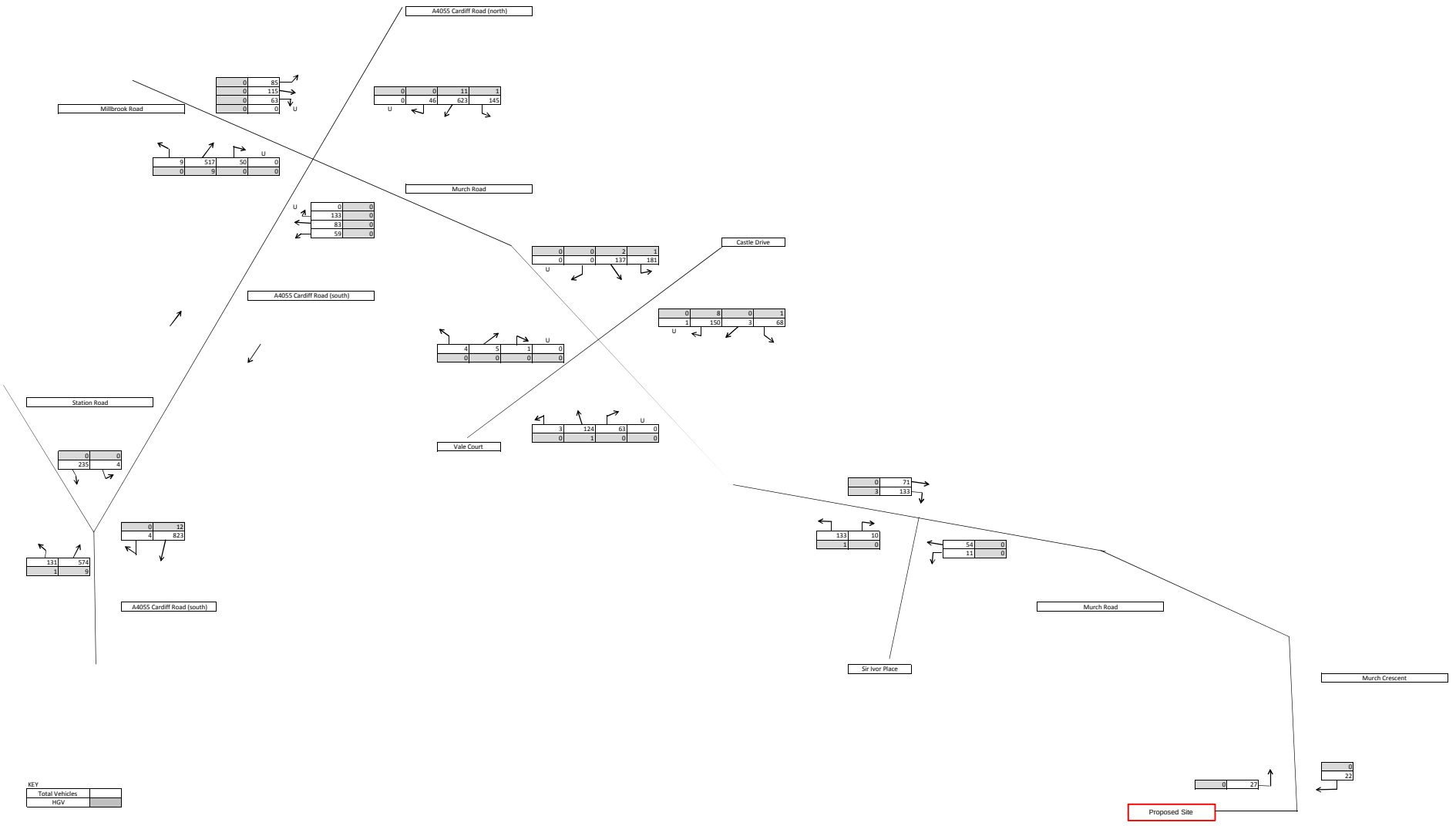


RPS	Job No.	JNY8501	Rev Date.	13/10/2015	St Cyres Lower School
	Drawing No.		Authorised		Committed Developoment PM
	Drawn by	AN	Checked by:		

APPENDIX H – FUTURE YEAR + COMMITTED DEVELOPMENT TRAFFIC FLOW MODEL

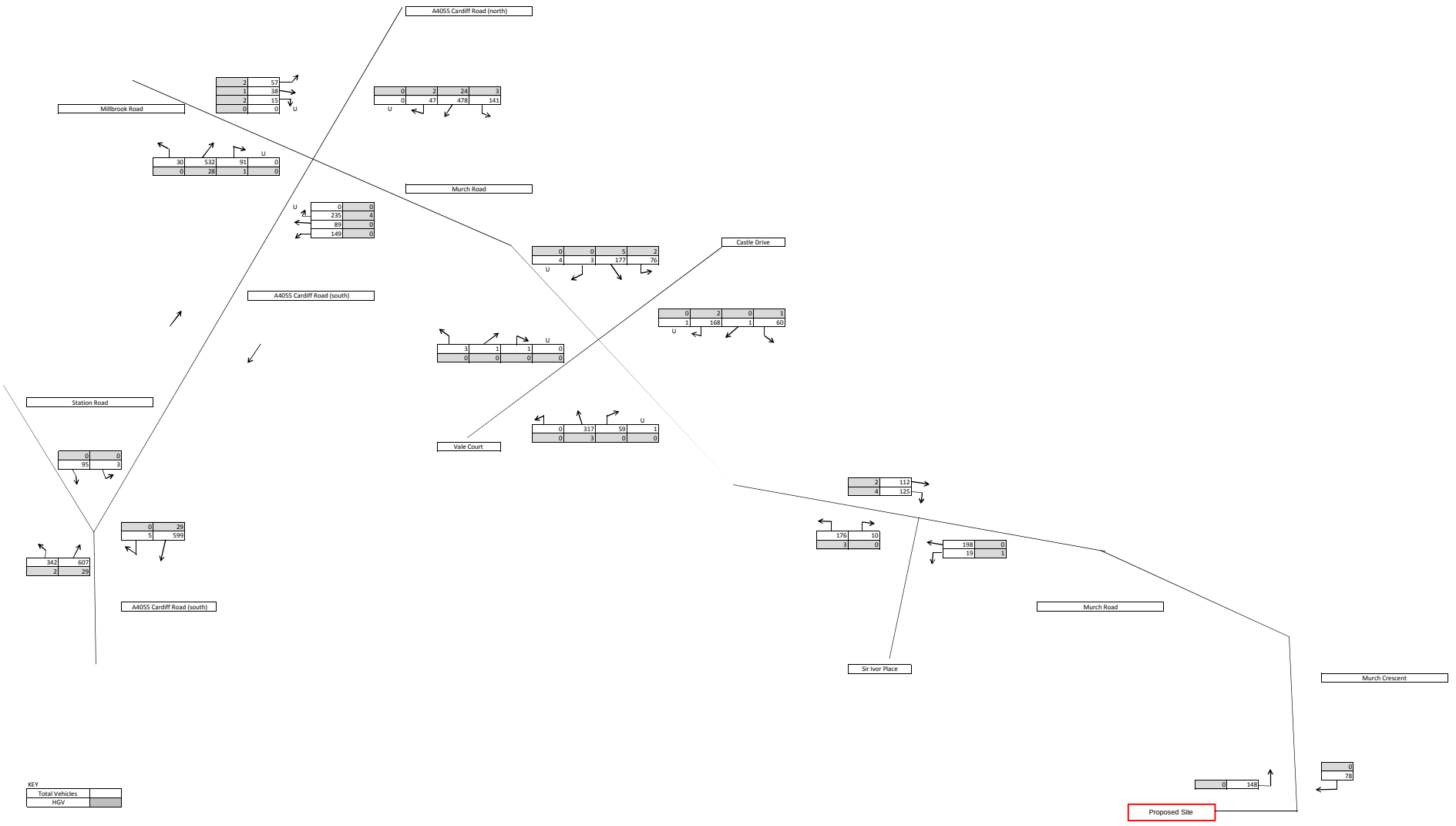


RPS	Job No.	JNY8501	Rev Date.	13/10/2015	St Cyres Lower School
	Drawing No.		Authorised		Baseline 2020 + Committed AM
	Drawn by	AN	Checked by:		

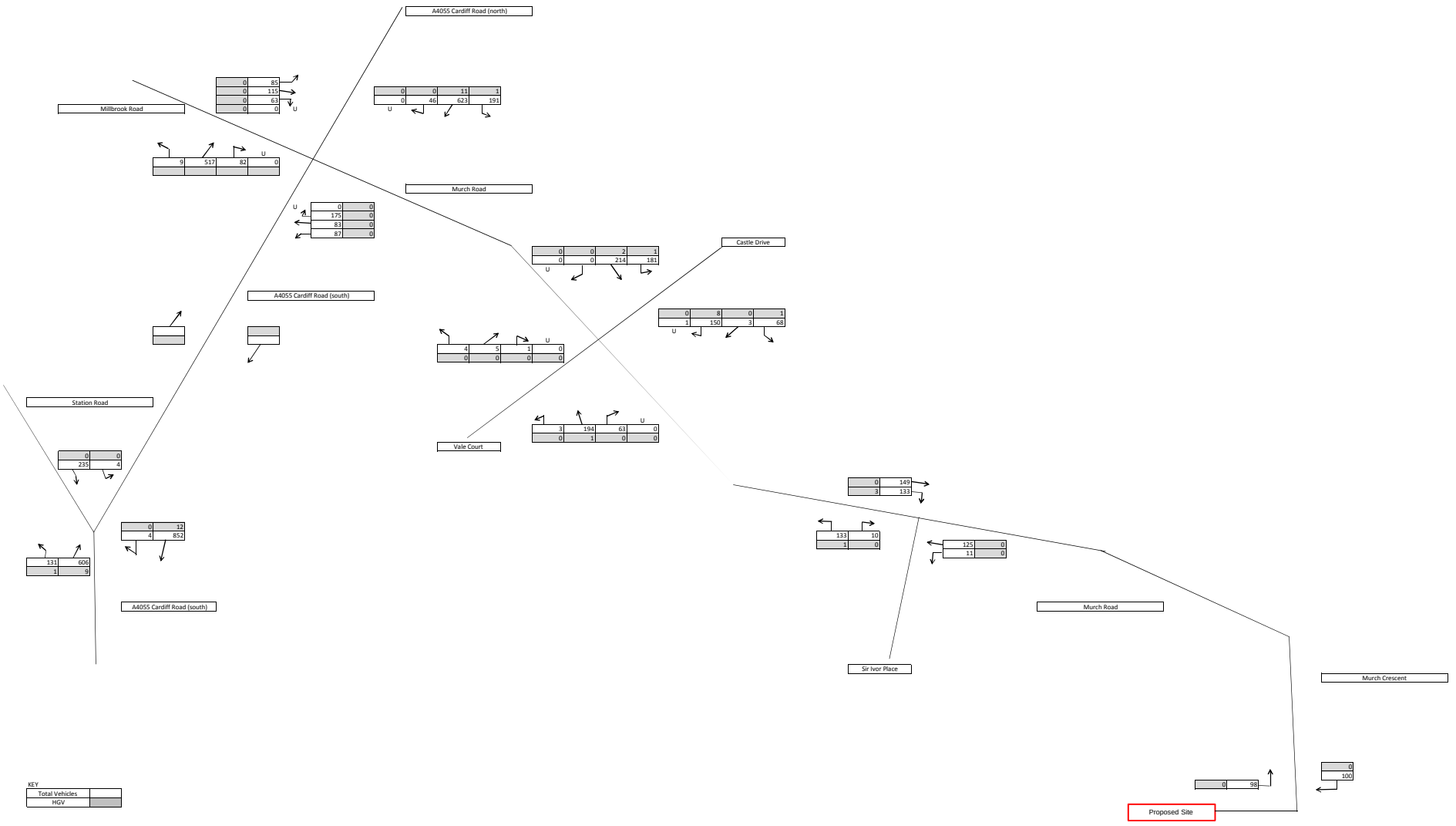


RPS	Job No.	JNY8501	Rev Date.	13/10/2015	St Cyres Lower School
	Drawing No.		Authorised		Baseline 2020 + Committed PM
	Drawn by	AN	Checked by:		

APPENDIX I – FUTURE YEAR + COMMITTED DEVELOPMENT + DEVELOPMENT TRAFFIC FLOW MODEL



RPS	Job No.	JNY8501	Rev Date.	13/10/2015	St Cyres Lower School
	Drawing No.		Authorised		Baseline 2020 + Committed + Development AM
	Drawn by	AN	Checked by:		



RPS	Job No.	JNY8501	Rev Date.	13/10/2015	St Cyres Lower School
	Drawing No.		Authorised		Baseline 2020 + Committed + Development PM
	Drawn by	AN	Checked by:		

APPENDIX J – ALL JUNCTION 9 ASSESSMENTS AND LINSIG RESULTS

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.0.0.4211 []

For sales and distribution information, program advice and maintenance, contact TRL:
Tel: +44 (0)1344 770758 email: software@trl.co.uk Web: http://www.trlsoftware.co.uk

Filename: Junction 1 - Sir Ivor Place - Murch Road.j9
Path: P:\JNY8501 - St Cyres Lower School\Transport\Picady
Report generation date: 27/11/2015 13:09:29

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2015 Baseline							
Stream B-C	0.4	7.50	0.27	A	0.3	6.72	0.20	A
Stream B-A	0.0	10.36	0.03	B	0.0	10.21	0.03	B
Stream C-AB	0.3	8.32	0.23	A	0.4	8.13	0.25	A
Stream C-A								
Stream A-B								
Stream A-C								
	2020 Baseline							
Stream B-C	0.0	8.43	0.03	A	0.0	7.98	0.02	A
Stream B-A	0.6	12.10	0.39	B	0.4	10.31	0.29	B
Stream C-AB	0.1	6.90	0.04	A	0.0	6.70	0.02	A
Stream C-A								
Stream A-B								
Stream A-C								
	2020 Baseline + Committed							
Stream B-C	0.4	7.84	0.29	A	0.3	7.12	0.22	A
Stream B-A	0.0	11.04	0.03	B	0.0	11.08	0.03	B
Stream C-AB	0.4	7.92	0.27	A	0.5	8.07	0.29	A
Stream C-A								
Stream A-B								
Stream A-C								
	2020 Baseline + Committed + Development							
Stream B-C	0.5	8.79	0.32	A	0.3	8.06	0.25	A
Stream B-A	0.1	13.11	0.09	B	0.2	14.05	0.14	B
Stream C-AB	0.5	8.34	0.30	A	0.6	8.33	0.32	A
Stream C-A								
Stream A-B								
Stream A-C								

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	20/11/2015
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EUR"alice.nolan
Description	

Units

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

Analysis Options

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

Demand Set Summary

Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
2015 Baseline	AM	ONE HOUR	07:45	09:15	15
2015 Baseline	PM	ONE HOUR	16:45	18:15	15
2020 Baseline	AM	ONE HOUR	07:45	09:15	15
2020 Baseline	PM	ONE HOUR	16:45	18:15	15
2020 Baseline + Committed	AM	ONE HOUR	07:45	09:15	15
2020 Baseline + Committed	PM	ONE HOUR	16:45	18:15	15
2020 Baseline + Committed + Development	AM	ONE HOUR	07:45	09:15	15
2020 Baseline + Committed + Development	PM	ONE HOUR	16:45	18:15	15

2015 Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Sir Ivor Place - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	6.08	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Murch Road (east)		Major
B	Sir Ivor Place		Minor
C	Murch Road (west)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Murch Road (west)	6.00			0.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Sir Ivor Place	One lane plus flare	6.40	4.00	3.40	3.40	3.40	✓	1.00	19	21

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	414.943	0.076	0.191	0.120	0.273
1	B-C	690.741	0.106	0.268	-	-
1	C-B	573.963	0.222	0.222	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D1	2015 Baseline	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Murch Road (east)		✓	64.00	100.000
B - Sir Ivor Place		✓	173.00	100.000
C - Murch Road (west)		✓	148.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
From		A - Murch Road (east)	B - Sir Ivor Place	C - Murch Road (west)
	A - Murch Road (east)	0.000	18.000	46.000
	B - Sir Ivor Place	9.000	0.000	164.000
	C - Murch Road (west)	32.000	116.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To		
		A - Murch Road (east)	B - Sir Ivor Place	C - Murch Road (west)
From	A - Murch Road (east)	0	6	0
	B - Sir Ivor Place	0	0	2
	C - Murch Road (west)	6	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.27	7.50	0.4	A
B-A	0.03	10.36	0.0	B
C-AB	0.23	8.32	0.3	A
C-A				
A-B				
A-C				

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	123.47	676.97	0.182	122.57	0.2	6.612	A
B-A	6.78	378.36	0.018	6.70	0.0	9.686	A
C-AB	91.10	579.80	0.157	90.31	0.2	7.574	A
C-A	20.32			20.32			
A-B	13.55			13.55			
A-C	34.63			34.63			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	147.43	674.19	0.219	147.20	0.3	6.964	A
B-A	8.09	369.89	0.022	8.07	0.0	9.949	A
C-AB	109.72	580.98	0.189	109.52	0.2	7.873	A
C-A	23.32			23.32			
A-B	16.18			16.18			
A-C	41.35			41.35			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	180.57	670.32	0.269	180.21	0.4	7.487	A
B-A	9.91	357.53	0.028	9.88	0.0	10.355	B
C-AB	135.95	582.62	0.233	135.63	0.3	8.305	A
C-A	27.01			27.01			
A-B	19.82			19.82			
A-C	50.65			50.65			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	180.57	670.31	0.269	180.56	0.4	7.496	A
B-A	9.91	357.41	0.028	9.91	0.0	10.359	B
C-AB	135.96	582.64	0.233	135.96	0.3	8.316	A
C-A	26.99			26.99			
A-B	19.82			19.82			
A-C	50.65			50.65			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	147.43	674.17	0.219	147.78	0.3	6.979	A
B-A	8.09	369.72	0.022	8.11	0.0	9.957	A
C-AB	109.75	581.02	0.189	110.05	0.3	7.893	A
C-A	23.30			23.30			
A-B	16.18			16.18			
A-C	41.35			41.35			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	123.47	676.93	0.182	123.70	0.2	6.642	A
B-A	6.78	378.03	0.018	6.79	0.0	9.699	A
C-AB	91.14	579.83	0.157	91.35	0.2	7.604	A
C-A	20.28			20.28			
A-B	13.55			13.55			
A-C	34.63			34.63			

2015 Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Sir Ivor Place - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	5.95	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D2	2015 Baseline	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Murch Road (east)		✓	35.00	100.000
B - Sir Ivor Place		✓	133.00	100.000
C - Murch Road (west)		✓	170.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Murch Road (east)	B - Sir Ivor Place	C - Murch Road (west)
From	A - Murch Road (east)	0.000	10.000	25.000
	B - Sir Ivor Place	9.000	0.000	124.000
	C - Murch Road (west)	46.000	124.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To		
		A - Murch Road (east)	B - Sir Ivor Place	C - Murch Road (west)
From	A - Murch Road (east)	0	0	0
	B - Sir Ivor Place	0	0	1
	C - Murch Road (west)	0	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.20	6.72	0.3	A
B-A	0.03	10.21	0.0	B
C-AB	0.25	8.13	0.4	A
C-A				
A-B				
A-C				

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	93.35	681.83	0.137	92.72	0.2	6.165	A
B-A	6.78	380.23	0.018	6.70	0.0	9.638	A
C-AB	99.12	591.80	0.167	98.26	0.2	7.420	A
C-A	28.87			28.87			
A-B	7.53			7.53			
A-C	18.82			18.82			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	111.47	680.00	0.164	111.32	0.2	6.392	A
B-A	8.09	372.80	0.022	8.07	0.0	9.870	A
C-AB	119.79	595.31	0.201	119.57	0.3	7.707	A
C-A	33.04			33.04			
A-B	8.99			8.99			
A-C	22.47			22.47			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	136.53	677.44	0.202	136.30	0.3	6.715	A
B-A	9.91	362.41	0.027	9.89	0.0	10.212	B
C-AB	149.08	600.16	0.248	148.73	0.4	8.120	A
C-A	38.10			38.10			
A-B	11.01			11.01			
A-C	27.53			27.53			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	136.53	677.43	0.202	136.52	0.3	6.721	A
B-A	9.91	362.31	0.027	9.91	0.0	10.215	B
C-AB	149.11	600.19	0.248	149.10	0.4	8.130	A
C-A	38.07			38.07			
A-B	11.01			11.01			
A-C	27.53			27.53			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	111.47	679.98	0.164	111.69	0.2	6.399	A
B-A	8.09	372.64	0.022	8.11	0.0	9.878	A
C-AB	119.83	595.36	0.201	120.16	0.3	7.723	A
C-A	33.00			33.00			
A-B	8.99			8.99			
A-C	22.47			22.47			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	93.35	681.79	0.137	93.51	0.2	6.181	A
B-A	6.78	379.92	0.018	6.79	0.0	9.650	A
C-AB	99.18	591.85	0.168	99.41	0.2	7.453	A
C-A	28.80			28.80			
A-B	7.53			7.53			
A-C	18.82			18.82			

2020 Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Sir Ivor Place - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	5.71	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D3	2020 Baseline	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Murch Road (east)		✓	159.00	100.000
B - Sir Ivor Place		✓	186.00	100.000
C - Murch Road (west)		✓	68.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Murch Road (east)	B - Sir Ivor Place	C - Murch Road (west)
From	A - Murch Road (east)	0.000	125.000	34.000
	B - Sir Ivor Place	176.000	0.000	10.000
	C - Murch Road (west)	49.000	19.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To		
		A - Murch Road (east)	B - Sir Ivor Place	C - Murch Road (west)
From	A - Murch Road (east)	0	3	6
	B - Sir Ivor Place	2	0	0
	C - Murch Road (west)	0	6	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.03	8.43	0.0	A
B-A	0.39	12.10	0.6	B
C-AB	0.04	6.90	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	7.53	479.95	0.016	7.47	0.0	7.619	A
B-A	132.50	509.36	0.260	131.09	0.4	9.672	A
C-AB	15.28	573.00	0.027	15.15	0.0	6.812	A
C-A	35.91			35.91			
A-B	94.11			94.11			
A-C	25.60			25.60			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	8.99	464.00	0.019	8.97	0.0	7.911	A
B-A	158.22	504.19	0.314	157.80	0.5	10.588	B
C-AB	18.50	572.95	0.032	18.47	0.0	6.852	A
C-A	42.63			42.63			
A-B	112.37			112.37			
A-C	30.57			30.57			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	11.01	438.38	0.025	10.99	0.0	8.423	A
B-A	193.78	497.09	0.390	193.06	0.6	12.049	B
C-AB	23.09	572.92	0.040	23.04	0.1	6.903	A
C-A	51.78			51.78			
A-B	137.63			137.63			
A-C	37.43			37.43			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	11.01	437.90	0.025	11.01	0.0	8.432	A
B-A	193.78	497.07	0.390	193.75	0.6	12.104	B
C-AB	23.09	572.93	0.040	23.09	0.1	6.901	A
C-A	51.78			51.78			
A-B	137.63			137.63			
A-C	37.43			37.43			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	8.99	463.39	0.019	9.01	0.0	7.923	A
B-A	158.22	504.17	0.314	158.90	0.5	10.658	B
C-AB	18.51	572.95	0.032	18.55	0.0	6.847	A
C-A	42.62			42.62			
A-B	112.37			112.37			
A-C	30.57			30.57			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	7.53	479.11	0.016	7.54	0.0	7.636	A
B-A	132.50	509.30	0.260	132.94	0.4	9.768	A
C-AB	15.29	573.01	0.027	15.32	0.0	6.813	A
C-A	35.90			35.90			
A-B	94.11			94.11			
A-C	25.60			25.60			

2020 Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Sir Ivor Place - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	4.21	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D4	2020 Baseline	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Murch Road (east)		✓	182.00	100.000
B - Sir Ivor Place		✓	143.00	100.000
C - Murch Road (west)		✓	38.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Murch Road (east)	B - Sir Ivor Place	C - Murch Road (west)
From	A - Murch Road (east)	0.000	133.000	49.000
	B - Sir Ivor Place	133.000	0.000	10.000
	C - Murch Road (west)	27.000	11.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To		
		A - Murch Road (east)	B - Sir Ivor Place	C - Murch Road (west)
From	A - Murch Road (east)	0	2	0
	B - Sir Ivor Place	1	0	0
	C - Murch Road (west)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.02	7.98	0.0	A
B-A	0.29	10.31	0.4	B
C-AB	0.02	6.70	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	7.53	490.29	0.015	7.47	0.0	7.456	A
B-A	100.13	510.68	0.196	99.16	0.2	8.816	A
C-AB	8.59	557.68	0.015	8.53	0.0	6.555	A
C-A	20.01			20.01			
A-B	100.13			100.13			
A-C	36.89			36.89			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	8.99	479.24	0.019	8.98	0.0	7.654	A
B-A	119.56	505.80	0.236	119.30	0.3	9.400	A
C-AB	10.34	554.60	0.019	10.33	0.0	6.613	A
C-A	23.82			23.82			
A-B	119.56			119.56			
A-C	44.05			44.05			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	11.01	462.53	0.024	10.99	0.0	7.972	A
B-A	146.44	499.07	0.293	146.02	0.4	10.286	B
C-AB	12.80	550.38	0.023	12.78	0.0	6.695	A
C-A	29.04			29.04			
A-B	146.44			146.44			
A-C	53.95			53.95			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	11.01	462.32	0.024	11.01	0.0	7.976	A
B-A	146.44	499.06	0.293	146.42	0.4	10.310	B
C-AB	12.80	550.38	0.023	12.80	0.0	6.696	A
C-A	29.03			29.03			
A-B	146.44			146.44			
A-C	53.95			53.95			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	8.99	478.96	0.019	9.01	0.0	7.659	A
B-A	119.56	505.79	0.236	119.96	0.3	9.435	A
C-AB	10.34	554.60	0.019	10.37	0.0	6.614	A
C-A	23.82			23.82			
A-B	119.56			119.56			
A-C	44.05			44.05			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	7.53	489.83	0.015	7.54	0.0	7.463	A
B-A	100.13	510.65	0.196	100.40	0.2	8.868	A
C-AB	8.60	557.68	0.015	8.61	0.0	6.558	A
C-A	20.01			20.01			
A-B	100.13			100.13			
A-C	36.89			36.89			

2020 Baseline + Committed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Sir Ivor Place - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	5.21	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D5	2020 Baseline + Committed	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Murch Road (east)		✓	90.00	100.000
B - Sir Ivor Place		✓	186.00	100.000
C - Murch Road (west)		✓	239.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Murch Road (east)	B - Sir Ivor Place	C - Murch Road (west)
From	A - Murch Road (east)	0.000	19.000	71.000
	B - Sir Ivor Place	10.000	0.000	176.000
	C - Murch Road (west)	114.000	125.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To		
		A - Murch Road (east)	B - Sir Ivor Place	C - Murch Road (west)
From	A - Murch Road (east)	0	6	0
	B - Sir Ivor Place	0	0	2
	C - Murch Road (west)	2	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.29	7.84	0.4	A
B-A	0.03	11.04	0.0	B
C-AB	0.27	7.92	0.4	A
C-A				
A-B				
A-C				

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	132.50	671.41	0.197	131.51	0.2	6.788	A
B-A	7.53	364.96	0.021	7.45	0.0	10.067	B
C-AB	109.01	617.94	0.176	108.01	0.2	7.252	A
C-A	70.92			70.92			
A-B	14.30			14.30			
A-C	53.45			53.45			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	158.22	667.49	0.237	157.96	0.3	7.203	A
B-A	8.99	353.61	0.025	8.97	0.0	10.445	B
C-AB	134.48	626.88	0.215	134.19	0.3	7.515	A
C-A	80.38			80.38			
A-B	17.08			17.08			
A-C	63.83			63.83			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	193.78	662.04	0.293	193.37	0.4	7.827	A
B-A	11.01	337.13	0.033	10.98	0.0	11.038	B
C-AB	171.47	639.08	0.268	171.00	0.4	7.909	A
C-A	91.67			91.67			
A-B	20.92			20.92			
A-C	78.17			78.17			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	193.78	662.02	0.293	193.77	0.4	7.841	A
B-A	11.01	336.97	0.033	11.01	0.0	11.043	B
C-AB	171.56	639.17	0.268	171.55	0.4	7.922	A
C-A	91.58			91.58			
A-B	20.92			20.92			
A-C	78.17			78.17			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	158.22	667.47	0.237	158.62	0.3	7.221	A
B-A	8.99	353.37	0.025	9.02	0.0	10.456	B
C-AB	134.59	627.03	0.215	135.04	0.3	7.537	A
C-A	80.26			80.26			
A-B	17.08			17.08			
A-C	63.83			63.83			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	132.50	671.36	0.197	132.77	0.3	6.820	A
B-A	7.53	364.55	0.021	7.55	0.0	10.085	B
C-AB	109.19	618.09	0.177	109.49	0.3	7.289	A
C-A	70.75			70.75			
A-B	14.30			14.30			
A-C	53.45			53.45			

2020 Baseline + Committed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Sir Ivor Place - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	4.78	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D6	2020 Baseline + Committed	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Murch Road (east)		✓	102.00	100.000
B - Sir Ivor Place		✓	143.00	100.000
C - Murch Road (west)		✓	247.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Murch Road (east)	B - Sir Ivor Place	C - Murch Road (west)
From	A - Murch Road (east)	0.000	11.000	91.000
	B - Sir Ivor Place	10.000	0.000	133.000
	C - Murch Road (west)	114.000	133.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To		
		A - Murch Road (east)	B - Sir Ivor Place	C - Murch Road (west)
From	A - Murch Road (east)	0	0	0
	B - Sir Ivor Place	0	0	1
	C - Murch Road (west)	0	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.22	7.12	0.3	A
B-A	0.03	11.08	0.0	B
C-AB	0.29	8.07	0.5	A
C-A				
A-B				
A-C				

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	100.13	668.01	0.150	99.42	0.2	6.386	A
B-A	7.53	362.46	0.021	7.44	0.0	10.138	B
C-AB	116.04	616.03	0.188	114.98	0.3	7.297	A
C-A	69.91			69.91			
A-B	8.28			8.28			
A-C	68.51			68.51			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	119.56	663.44	0.180	119.39	0.2	6.681	A
B-A	8.99	351.41	0.026	8.97	0.0	10.512	B
C-AB	143.19	624.63	0.229	142.87	0.3	7.600	A
C-A	78.86			78.86			
A-B	9.89			9.89			
A-C	81.81			81.81			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	146.44	657.07	0.223	146.17	0.3	7.114	A
B-A	11.01	335.98	0.033	10.98	0.0	11.077	B
C-AB	182.64	636.35	0.287	182.12	0.5	8.056	A
C-A	89.31			89.31			
A-B	12.11			12.11			
A-C	100.19			100.19			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	146.44	657.05	0.223	146.43	0.3	7.119	A
B-A	11.01	335.84	0.033	11.01	0.0	11.081	B
C-AB	182.74	636.46	0.287	182.72	0.5	8.071	A
C-A	89.21			89.21			
A-B	12.11			12.11			
A-C	100.19			100.19			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	119.56	663.41	0.180	119.82	0.2	6.693	A
B-A	8.99	351.19	0.026	9.02	0.0	10.521	B
C-AB	143.31	624.79	0.229	143.81	0.4	7.621	A
C-A	78.73			78.73			
A-B	9.89			9.89			
A-C	81.81			81.81			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	100.13	667.96	0.150	100.31	0.2	6.406	A
B-A	7.53	362.07	0.021	7.55	0.0	10.156	B
C-AB	116.23	616.19	0.189	116.56	0.3	7.334	A
C-A	69.72			69.72			
A-B	8.28			8.28			
A-C	68.51			68.51			

2020 Baseline + Committed + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Sir Ivor Place - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	4.40	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D7	2020 Baseline + Committed + Development	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Murch Road (east)		✓	258.00	100.000
B - Sir Ivor Place		✓	201.00	100.000
C - Murch Road (west)		✓	276.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Murch Road (east)	B - Sir Ivor Place	C - Murch Road (west)
From	A - Murch Road (east)	0.000	68.000	190.000
	B - Sir Ivor Place	25.000	0.000	176.000
	C - Murch Road (west)	151.000	125.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To		
		A - Murch Road (east)	B - Sir Ivor Place	C - Murch Road (west)
From	A - Murch Road (east)	0	2	0
	B - Sir Ivor Place	0	0	2
	C - Murch Road (west)	1	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.32	8.79	0.5	A
B-A	0.09	13.11	0.1	B
C-AB	0.30	8.34	0.5	A
C-A				
A-B				
A-C				

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	132.50	637.83	0.208	131.44	0.3	7.237	A
B-A	18.82	341.59	0.055	18.59	0.1	11.137	B
C-AB	115.59	610.91	0.189	114.45	0.3	7.431	A
C-A	92.20			92.20			
A-B	51.19			51.19			
A-C	143.04			143.04			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	158.22	626.89	0.252	157.92	0.3	7.825	A
B-A	22.47	325.53	0.069	22.41	0.1	11.873	B
C-AB	144.15	618.85	0.233	143.78	0.4	7.777	A
C-A	103.97			103.97			
A-B	61.13			61.13			
A-C	170.81			170.81			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	193.78	611.39	0.317	193.27	0.5	8.771	A
B-A	27.53	302.34	0.091	27.42	0.1	13.091	B
C-AB	187.24	630.02	0.297	186.59	0.5	8.326	A
C-A	116.64			116.64			
A-B	74.87			74.87			
A-C	209.19			209.19			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	193.78	611.31	0.317	193.77	0.5	8.794	A
B-A	27.53	302.13	0.091	27.52	0.1	13.109	B
C-AB	187.39	630.19	0.297	187.37	0.5	8.345	A
C-A	116.49			116.49			
A-B	74.87			74.87			
A-C	209.19			209.19			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	158.22	626.78	0.252	158.71	0.3	7.852	A
B-A	22.47	325.23	0.069	22.57	0.1	11.900	B
C-AB	144.34	619.11	0.233	144.96	0.4	7.800	A
C-A	103.78			103.78			
A-B	61.13			61.13			
A-C	170.81			170.81			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	132.50	637.66	0.208	132.81	0.3	7.277	A
B-A	18.82	341.14	0.055	18.89	0.1	11.173	B
C-AB	115.87	611.15	0.190	116.25	0.3	7.472	A
C-A	91.92			91.92			
A-B	51.19			51.19			
A-C	143.04			143.04			

2020 Baseline + Committed + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Sir Ivor Place - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1 - untitled	untitled	T-Junction	Two-way	4.12	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D8	2020 Baseline + Committed + Development	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Murch Road (east)		✓	271.00	100.000
B - Sir Ivor Place		✓	170.00	100.000
C - Murch Road (west)		✓	313.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Murch Road (east)	B - Sir Ivor Place	C - Murch Road (west)
From	A - Murch Road (east)	0.000	60.000	211.000
	B - Sir Ivor Place	37.000	0.000	133.000
	C - Murch Road (west)	180.000	133.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To		
		A - Murch Road (east)	B - Sir Ivor Place	C - Murch Road (west)
From	A - Murch Road (east)	0	0	0
	B - Sir Ivor Place	0	0	1
	C - Murch Road (west)	0	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.25	8.06	0.3	A
B-A	0.14	14.05	0.2	B
C-AB	0.32	8.33	0.6	A
C-A				
A-B				
A-C				

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	100.13	629.53	0.159	99.37	0.2	6.848	A
B-A	27.86	336.31	0.083	27.50	0.1	11.645	B
C-AB	127.83	624.27	0.205	126.55	0.3	7.334	A
C-A	107.82			107.82			
A-B	45.17			45.17			
A-C	158.85			158.85			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	119.56	616.49	0.194	119.36	0.2	7.310	A
B-A	33.26	320.02	0.104	33.16	0.1	12.546	B
C-AB	160.68	634.99	0.253	160.23	0.4	7.701	A
C-A	120.71			120.71			
A-B	53.94			53.94			
A-C	189.68			189.68			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	146.44	597.73	0.245	146.10	0.3	8.045	A
B-A	40.74	297.20	0.137	40.57	0.2	14.019	B
C-AB	210.92	650.05	0.324	210.13	0.6	8.308	A
C-A	133.70			133.70			
A-B	66.06			66.06			
A-C	232.32			232.32			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	146.44	597.60	0.245	146.43	0.3	8.058	A
B-A	40.74	297.00	0.137	40.73	0.2	14.047	B
C-AB	211.13	650.28	0.325	211.11	0.6	8.331	A
C-A	133.49			133.49			
A-B	66.06			66.06			
A-C	232.32			232.32			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	119.56	616.30	0.194	119.89	0.2	7.328	A
B-A	33.26	319.79	0.104	33.42	0.1	12.580	B
C-AB	160.94	635.35	0.253	161.70	0.4	7.731	A
C-A	120.44			120.44			
A-B	53.94			53.94			
A-C	189.68			189.68			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	100.13	629.25	0.159	100.34	0.2	6.879	A
B-A	27.86	335.88	0.083	27.96	0.1	11.697	B
C-AB	128.20	624.59	0.205	128.66	0.3	7.384	A
C-A	107.44			107.44			
A-B	45.17			45.17			
A-C	158.85			158.85			

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.0.0.4211 []

For sales and distribution information, program advice and maintenance, contact TRL:
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Filename: Junction 2- Castle Drive - Murch Road.j9
Path: P:\JNY8501 - St Cyres Lower School\Transport\Picady
Report generation date: 27/11/2015 13:10:31

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2015 Baseline							
Stream B-CD	0.2	8.86	0.13	A	0.2	9.02	0.15	A
Stream B-AD	0.5	12.95	0.33	B	0.5	13.53	0.33	B
Stream A-BCD	0.0	5.94	0.01	A	0.0	0.00	0.00	A
Stream A-B								
Stream A-C								
Stream D-AB	0.0	6.89	0.01	A	0.0	7.89	0.02	A
Stream D-BC	0.0	10.64	0.00	B	0.0	9.88	0.01	A
Stream C-ABD	0.2	6.30	0.13	A	0.2	7.12	0.13	A
Stream C-D								
Stream C-A								
	2020 Baseline							
Stream B-CD	0.2	9.22	0.14	A	0.2	9.39	0.16	A
Stream B-AD	0.6	13.78	0.37	B	0.6	14.37	0.36	B
Stream A-BCD	0.0	5.91	0.01	A	0.0	0.00	0.00	A
Stream A-B								
Stream A-C								
Stream D-AB	0.0	6.94	0.01	A	0.0	7.96	0.02	A
Stream D-BC	0.0	10.82	0.00	B	0.0	10.02	0.01	B
Stream C-ABD	0.2	6.31	0.14	A	0.2	7.19	0.15	A
Stream C-D								
Stream C-A								
	2020 Baseline + Committed							
Stream B-CD	0.2	9.81	0.15	A	0.2	9.96	0.17	A
Stream B-AD	0.6	15.16	0.39	C	0.6	15.97	0.38	C
Stream A-BCD	0.0	5.57	0.01	A	0.0	0.00	0.00	A
Stream A-B								
Stream A-C								
Stream D-AB	0.0	7.06	0.01	A	0.0	8.35	0.02	A
Stream D-BC	0.0	11.35	0.01	B	0.0	10.71	0.01	B
Stream C-ABD	0.2	6.42	0.14	A	0.3	6.88	0.16	A
Stream C-D								
Stream C-A								
	2020 Baseline + Committed + Development							
Stream B-CD	0.2	10.31	0.18	B	0.3	10.51	0.21	B
Stream B-AD	0.7	17.61	0.42	C	0.7	18.19	0.41	C
Stream A-BCD	0.0	5.62	0.01	A	0.0	0.00	0.00	A
Stream A-B								
Stream A-C								
Stream D-AB	0.0	7.45	0.01	A	0.0	8.59	0.02	A
Stream D-BC	0.0	12.54	0.01	B	0.0	11.30	0.01	B
Stream C-ABD	0.5	6.39	0.22	A	0.4	7.57	0.23	A
Stream C-D								
Stream C-A								

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	20/11/2015
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EUR"alice.nolan
Description	

Units

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

Analysis Options

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

Demand Set Summary

Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
2015 Baseline	AM	ONE HOUR	07:45	09:15	15
2015 Baseline	PM	ONE HOUR	16:45	18:15	15
2020 Baseline	AM	ONE HOUR	07:45	09:15	15
2020 Baseline	PM	ONE HOUR	16:45	18:15	15
2020 Baseline + Committed	AM	ONE HOUR	07:45	09:15	15
2020 Baseline + Committed	PM	ONE HOUR	16:45	18:15	15
2020 Baseline + Committed + Development	AM	ONE HOUR	07:45	09:15	15
2020 Baseline + Committed + Development	PM	ONE HOUR	16:45	18:15	15

2015 Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way	4.83	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Murch Road (north)		Major
B	Castle Drive		Minor
C	Murch Road (south)		Major
D	Vale Court		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A	6.00			0.0	✓	0.00
C	6.00			0.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	7.00	4.00	3.00	3.00	3.00	✓	1.00	0	0
D	One lane plus flare	4.40	3.00	3.00	3.00	3.00		1.00	0	0

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	573.963	-	-	-	-	-	-	0.222	0.318	0.222	-	-	-
1	B-A	505.167	0.092	0.233	0.233	-	-	-	0.146	0.332	-	0.233	0.233	0.116
1	B-C	570.538	0.087	0.221	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	436.955	0.080	0.201	0.201	-	-	-	0.127	0.287	0.127	-	-	-
1	B-D, offside lane	505.167	0.092	0.233	0.233	-	-	-	0.146	0.332	0.146	-	-	-
1	C-B	573.963	0.222	0.222	0.318	-	-	-	-	-	-	-	-	-
1	D-A	601.449	-	-	-	-	-	-	0.233	-	0.092	-	-	-
1	D-B, nearside lane	460.629	0.133	0.133	0.303	-	-	-	0.212	0.212	0.084	-	-	-
1	D-B, offside lane	418.529	0.121	0.121	0.275	-	-	-	0.193	0.193	0.076	-	-	-
1	D-C	418.529	-	0.121	0.275	0.096	0.193	0.193	0.193	0.193	0.076	-	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D1	2015 Baseline	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	154.00	100.000
B		✓	186.00	100.000
C		✓	212.00	100.000
D		✓	5.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0.000	59.000	92.000	3.000
	B	129.000	0.000	56.000	1.000
	C	157.000	55.000	0.000	0.000
	D	3.000	1.000	1.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To			
		A	B	C	D
From	A	0	3	5	0
	B	2	0	2	0
	C	2	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-CD	0.13	8.86	0.2	A
B-AD	0.33	12.95	0.5	B
A-BCD	0.01	5.94	0.0	A
A-B				
A-C				
D-AB	0.01	6.89	0.0	A
D-BC	0.00	10.64	0.0	B
C-ABD	0.13	6.30	0.2	A
C-D				
C-A				

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	42.62	514.67	0.083	42.25	0.1	7.766	A
B-AD	97.41	452.00	0.216	96.31	0.3	10.291	B
A-BCD	2.76	614.15	0.004	2.74	0.0	5.931	A
A-B	44.22			44.22			
A-C	68.96			68.96			
D-AB	2.64	542.66	0.005	2.62	0.0	6.665	A
D-BC	1.13	365.12	0.003	1.12	0.0	9.889	A
C-ABD	50.72	629.85	0.081	50.27	0.1	6.230	A
C-D	0.00			0.00			
C-A	108.88			108.88			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	50.91	499.97	0.102	50.82	0.1	8.171	A
B-AD	116.30	441.19	0.264	115.97	0.4	11.279	B
A-BCD	3.43	622.25	0.006	3.43	0.0	5.864	A
A-B	52.75			52.75			
A-C	82.26			82.26			
D-AB	3.15	535.85	0.006	3.14	0.0	6.757	A
D-BC	1.35	354.61	0.004	1.34	0.0	10.190	B
C-ABD	63.05	640.98	0.098	62.92	0.1	6.255	A
C-D	0.00			0.00			
C-A	127.54			127.54			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	62.39	477.00	0.131	62.24	0.2	8.848	A
B-AD	142.40	426.00	0.334	141.83	0.5	12.892	B
A-BCD	4.44	633.78	0.007	4.43	0.0	5.774	A
A-B	64.52			64.52			
A-C	100.60			100.60			
D-AB	3.86	526.60	0.007	3.85	0.0	6.885	A
D-BC	1.65	340.16	0.005	1.65	0.0	10.634	B
C-ABD	82.24	657.32	0.125	82.03	0.2	6.291	A
C-D	0.00			0.00			
C-A	151.18			151.18			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	62.39	476.49	0.131	62.39	0.2	8.864	A
B-AD	142.40	425.95	0.334	142.38	0.5	12.946	B
A-BCD	4.44	633.73	0.007	4.44	0.0	5.782	A
A-B	64.52			64.52			
A-C	100.60			100.60			
D-AB	3.86	526.52	0.007	3.86	0.0	6.886	A
D-BC	1.65	340.09	0.005	1.65	0.0	10.636	B
C-ABD	82.28	657.37	0.125	82.28	0.2	6.296	A
C-D	0.00			0.00			
C-A	151.13			151.13			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	50.91	499.23	0.102	51.06	0.1	8.193	A
B-AD	116.30	441.11	0.264	116.84	0.4	11.344	B
A-BCD	3.43	622.17	0.006	3.44	0.0	5.874	A
A-B	52.75			52.75			
A-C	82.26			82.26			
D-AB	3.15	535.72	0.006	3.15	0.0	6.759	A
D-BC	1.35	354.51	0.004	1.35	0.0	10.195	B
C-ABD	63.11	641.06	0.098	63.30	0.1	6.268	A
C-D	0.00			0.00			
C-A	127.48			127.48			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	42.62	513.63	0.083	42.71	0.1	7.797	A
B-AD	97.41	451.84	0.216	97.76	0.3	10.381	B
A-BCD	2.76	613.99	0.005	2.77	0.0	5.939	A
A-B	44.22			44.22			
A-C	68.95			68.95			
D-AB	2.64	542.39	0.005	2.64	0.0	6.668	A
D-BC	1.13	364.99	0.003	1.13	0.0	9.895	A
C-ABD	50.82	629.93	0.081	50.95	0.1	6.248	A
C-D	0.00			0.00			
C-A	108.78			108.78			

2015 Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way	4.74	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D2	2015 Baseline	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	251.00	100.000
B		✓	190.00	100.000
C		✓	152.00	100.000
D		✓	10.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0.000	144.000	107.000	0.000
	B	124.000	0.000	63.000	3.000
	C	90.000	59.000	0.000	3.000
	D	4.000	5.000	1.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To			
		A	B	C	D
From	A	0	1	2	0
	B	6	0	2	0
	C	1	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-CD	0.15	9.02	0.2	A
B-AD	0.33	13.53	0.5	B
A-BCD	0.00	0.00	0.0	A
A-B				
A-C				
D-AB	0.02	7.89	0.0	A
D-BC	0.01	9.88	0.0	A
C-ABD	0.13	7.12	0.2	A
C-D				
C-A				

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	48.79	520.52	0.094	48.38	0.1	7.767	A
B-AD	94.25	446.93	0.211	93.13	0.3	10.747	B
A-BCD	0.00	544.28	0.000	0.00	0.0	0.000	A
A-B	108.41			108.41			
A-C	80.56			80.56			
D-AB	4.90	479.64	0.010	4.86	0.0	7.582	A
D-BC	2.63	390.99	0.007	2.60	0.0	9.269	A
C-ABD	50.42	581.19	0.087	49.98	0.1	6.781	A
C-D	2.07			2.07			
C-A	61.95			61.95			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	58.33	504.11	0.116	58.22	0.1	8.229	A
B-AD	112.47	435.56	0.258	112.14	0.4	11.780	B
A-BCD	0.00	538.39	0.000	0.00	0.0	0.000	A
A-B	129.45			129.45			
A-C	96.19			96.19			
D-AB	5.85	472.75	0.012	5.84	0.0	7.710	A
D-BC	3.14	381.41	0.008	3.13	0.0	9.516	A
C-ABD	61.84	582.98	0.106	61.72	0.1	6.915	A
C-D	2.41			2.41			
C-A	72.40			72.40			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	71.56	479.03	0.149	71.38	0.2	8.998	A
B-AD	137.64	419.48	0.328	137.06	0.5	13.476	B
A-BCD	0.00	530.38	0.000	0.00	0.0	0.000	A
A-B	158.55			158.55			
A-C	117.81			117.81			
D-AB	7.17	463.15	0.015	7.15	0.0	7.894	A
D-BC	3.85	368.32	0.010	3.84	0.0	9.876	A
C-ABD	78.54	585.58	0.134	78.35	0.2	7.109	A
C-D	2.87			2.87			
C-A	85.95			85.95			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	71.56	478.50	0.150	71.55	0.2	9.017	A
B-AD	137.64	419.42	0.328	137.61	0.5	13.532	B
A-BCD	0.00	530.33	0.000	0.00	0.0	0.000	A
A-B	158.55			158.55			
A-C	117.81			117.81			
D-AB	7.17	463.12	0.015	7.16	0.0	7.895	A
D-BC	3.85	368.25	0.010	3.84	0.0	9.878	A
C-ABD	78.57	585.61	0.134	78.56	0.2	7.117	A
C-D	2.86			2.86			
C-A	85.93			85.93			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	58.33	503.33	0.116	58.51	0.1	8.254	A
B-AD	112.47	435.47	0.258	113.02	0.4	11.850	B
A-BCD	0.00	538.29	0.000	0.00	0.0	0.000	A
A-B	129.45			129.45			
A-C	96.19			96.19			
D-AB	5.85	472.70	0.012	5.86	0.0	7.711	A
D-BC	3.14	381.30	0.008	3.15	0.0	9.521	A
C-ABD	61.87	583.03	0.106	62.05	0.1	6.924	A
C-D	2.41			2.41			
C-A	72.36			72.36			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	48.80	519.39	0.094	48.91	0.1	7.802	A
B-AD	94.24	446.77	0.211	94.59	0.3	10.842	B
A-BCD	0.00	544.11	0.000	0.00	0.0	0.000	A
A-B	108.41			108.41			
A-C	80.56			80.56			
D-AB	4.90	479.56	0.010	4.91	0.0	7.583	A
D-BC	2.63	390.80	0.007	2.64	0.0	9.276	A
C-ABD	50.49	581.25	0.087	50.61	0.1	6.795	A
C-D	2.06			2.06			
C-A	61.89			61.89			

2020 Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way	5.08	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D3	2020 Baseline	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	165.00	100.000
B		✓	200.00	100.000
C		✓	228.00	100.000
D		✓	5.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0.000	63.000	99.000	3.000
	B	139.000	0.000	60.000	1.000
	C	169.000	59.000	0.000	0.000
	D	3.000	1.000	1.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To			
		A	B	C	D
From	A	0	3	5	0
	B	2	0	2	0
	C	2	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-CD	0.14	9.22	0.2	A
B-AD	0.37	13.78	0.6	B
A-BCD	0.01	5.91	0.0	A
A-B				
A-C				
D-AB	0.01	6.94	0.0	A
D-BC	0.00	10.82	0.0	B
C-ABD	0.14	6.31	0.2	A
C-D				
C-A				

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	45.64	509.01	0.090	45.24	0.1	7.910	A
B-AD	104.94	448.11	0.234	103.71	0.3	10.625	B
A-BCD	2.80	617.14	0.005	2.78	0.0	5.905	A
A-B	47.22			47.22			
A-C	74.20			74.20			
D-AB	2.64	540.13	0.005	2.62	0.0	6.696	A
D-BC	1.13	361.15	0.003	1.12	0.0	9.998	A
C-ABD	55.24	634.34	0.087	54.74	0.1	6.232	A
C-D	0.00			0.00			
C-A	116.41			116.41			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	54.52	492.31	0.111	54.41	0.1	8.382	A
B-AD	125.28	436.40	0.287	124.89	0.4	11.771	B
A-BCD	3.49	625.86	0.006	3.49	0.0	5.833	A
A-B	56.33			56.33			
A-C	88.51			88.51			
D-AB	3.15	532.80	0.006	3.14	0.0	6.796	A
D-BC	1.35	349.84	0.004	1.34	0.0	10.329	B
C-ABD	68.87	646.38	0.107	68.73	0.2	6.261	A
C-D	0.00			0.00			
C-A	136.10			136.10			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	66.81	465.66	0.143	66.64	0.2	9.197	A
B-AD	153.39	419.90	0.365	152.71	0.6	13.706	B
A-BCD	4.53	638.29	0.007	4.53	0.0	5.738	A
A-B	68.89			68.89			
A-C	108.25			108.25			
D-AB	3.86	522.82	0.007	3.85	0.0	6.935	A
D-BC	1.65	334.31	0.005	1.65	0.0	10.821	B
C-ABD	90.32	664.16	0.136	90.08	0.2	6.304	A
C-D	0.00			0.00			
C-A	160.72			160.72			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	66.81	465.01	0.144	66.81	0.2	9.219	A
B-AD	153.39	419.83	0.365	153.36	0.6	13.778	B
A-BCD	4.54	638.23	0.007	4.54	0.0	5.745	A
A-B	68.88			68.88			
A-C	108.25			108.25			
D-AB	3.86	522.75	0.007	3.86	0.0	6.937	A
D-BC	1.65	334.23	0.005	1.65	0.0	10.823	B
C-ABD	90.37	664.23	0.136	90.36	0.2	6.314	A
C-D	0.00			0.00			
C-A	160.66			160.66			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	54.52	491.39	0.111	54.68	0.1	8.409	A
B-AD	125.28	436.31	0.287	125.93	0.4	11.854	B
A-BCD	3.49	625.77	0.006	3.50	0.0	5.844	A
A-B	56.33			56.33			
A-C	88.51			88.51			
D-AB	3.15	532.65	0.006	3.15	0.0	6.800	A
D-BC	1.35	349.73	0.004	1.35	0.0	10.333	B
C-ABD	68.94	646.48	0.107	69.16	0.2	6.275	A
C-D	0.00			0.00			
C-A	136.03			136.03			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	45.64	507.81	0.090	45.74	0.1	7.948	A
B-AD	104.93	447.93	0.234	105.34	0.3	10.732	B
A-BCD	2.80	616.96	0.005	2.81	0.0	5.914	A
A-B	47.22			47.22			
A-C	74.20			74.20			
D-AB	2.64	539.85	0.005	2.64	0.0	6.700	A
D-BC	1.13	361.00	0.003	1.13	0.0	10.005	B
C-ABD	55.36	634.44	0.087	55.51	0.1	6.250	A
C-D	0.00			0.00			
C-A	116.29			116.29			

2020 Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way	4.96	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D4	2020 Baseline	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	270.00	100.000
B		✓	204.00	100.000
C		✓	163.00	100.000
D		✓	10.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0.000	155.000	115.000	0.000
	B	133.000	0.000	68.000	3.000
	C	97.000	63.000	0.000	3.000
	D	4.000	5.000	1.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To			
		A	B	C	D
From	A	0	1	2	0
	B	6	0	2	0
	C	1	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-CD	0.16	9.39	0.2	A
B-AD	0.36	14.37	0.6	B
A-BCD	0.00	0.00	0.0	A
A-B				
A-C				
D-AB	0.02	7.96	0.0	A
D-BC	0.01	10.02	0.0	B
C-ABD	0.15	7.19	0.2	A
C-D				
C-A				

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	52.58	515.51	0.102	52.12	0.1	7.911	A
B-AD	101.00	442.78	0.228	99.77	0.3	11.080	B
A-BCD	0.00	542.15	0.000	0.00	0.0	0.000	A
A-B	116.69			116.69			
A-C	86.58			86.58			
D-AB	4.90	477.08	0.010	4.86	0.0	7.623	A
D-BC	2.63	387.38	0.007	2.60	0.0	9.356	A
C-ABD	54.37	581.84	0.093	53.89	0.1	6.824	A
C-D	2.05			2.05			
C-A	66.29			66.29			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	62.86	497.10	0.126	62.73	0.1	8.446	A
B-AD	120.54	430.46	0.280	120.15	0.4	12.274	B
A-BCD	0.00	535.83	0.000	0.00	0.0	0.000	A
A-B	139.34			139.34			
A-C	103.38			103.38			
D-AB	5.85	469.65	0.012	5.84	0.0	7.761	A
D-BC	3.14	377.08	0.008	3.13	0.0	9.626	A
C-ABD	66.83	583.81	0.114	66.70	0.2	6.972	A
C-D	2.39			2.39			
C-A	77.31			77.31			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	77.11	468.44	0.165	76.90	0.2	9.368	A
B-AD	147.50	412.95	0.357	146.82	0.6	14.294	B
A-BCD	0.00	527.26	0.000	0.00	0.0	0.000	A
A-B	170.66			170.66			
A-C	126.62			126.62			
D-AB	7.17	459.28	0.016	7.15	0.0	7.962	A
D-BC	3.85	363.01	0.011	3.84	0.0	10.022	B
C-ABD	85.14	586.68	0.145	84.93	0.2	7.188	A
C-D	2.83			2.83			
C-A	91.50			91.50			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	77.11	467.78	0.165	77.11	0.2	9.393	A
B-AD	147.50	412.87	0.357	147.47	0.6	14.365	B
A-BCD	0.00	527.19	0.000	0.00	0.0	0.000	A
A-B	170.66			170.66			
A-C	126.62			126.62			
D-AB	7.17	459.25	0.016	7.16	0.0	7.962	A
D-BC	3.84	362.93	0.011	3.84	0.0	10.024	B
C-ABD	85.18	586.72	0.145	85.17	0.2	7.193	A
C-D	2.83			2.83			
C-A	91.46			91.46			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	62.86	496.16	0.127	63.06	0.1	8.477	A
B-AD	120.53	430.36	0.280	121.18	0.4	12.364	B
A-BCD	0.00	535.73	0.000	0.00	0.0	0.000	A
A-B	139.34			139.34			
A-C	103.38			103.38			
D-AB	5.85	469.59	0.012	5.86	0.0	7.763	A
D-BC	3.14	376.96	0.008	3.15	0.0	9.632	A
C-ABD	66.88	583.87	0.115	67.08	0.2	6.982	A
C-D	2.39			2.39			
C-A	77.26			77.26			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	52.58	514.23	0.102	52.71	0.1	7.955	A
B-AD	101.00	442.59	0.228	101.41	0.3	11.194	B
A-BCD	0.00	541.96	0.000	0.00	0.0	0.000	A
A-B	116.69			116.69			
A-C	86.58			86.58			
D-AB	4.90	476.99	0.010	4.91	0.0	7.627	A
D-BC	2.63	387.17	0.007	2.64	0.0	9.361	A
C-ABD	54.45	581.91	0.094	54.59	0.1	6.839	A
C-D	2.05			2.05			
C-A	66.21			66.21			

2020 Baseline + Committed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way	4.71	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D5	2020 Baseline + Committed	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	245.00	100.000
B		✓	200.00	100.000
C		✓	250.00	100.000
D		✓	5.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0.000	63.000	179.000	3.000
	B	139.000	0.000	60.000	1.000
	C	191.000	59.000	0.000	0.000
	D	3.000	1.000	1.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To			
		A	B	C	D
From	A	0	3	3	0
	B	2	0	2	0
	C	0	2	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-CD	0.15	9.81	0.2	A
B-AD	0.39	15.16	0.6	C
A-BCD	0.01	5.57	0.0	A
A-B				
A-C				
D-AB	0.01	7.06	0.0	A
D-BC	0.01	11.35	0.0	B
C-ABD	0.14	6.42	0.2	A
C-D				
C-A				

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	45.64	494.73	0.092	45.23	0.1	8.160	A
B-AD	104.93	431.63	0.243	103.64	0.3	11.152	B
A-BCD	3.09	655.45	0.005	3.07	0.0	5.561	A
A-B	47.21			47.21			
A-C	134.15			134.15			
D-AB	2.64	534.21	0.005	2.62	0.0	6.771	A
D-BC	1.13	350.66	0.003	1.12	0.0	10.299	B
C-ABD	57.03	633.37	0.090	56.49	0.1	6.334	A
C-D	0.00			0.00			
C-A	131.18			131.18			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	54.52	474.47	0.115	54.41	0.1	8.738	A
B-AD	125.27	416.67	0.301	124.84	0.4	12.562	B
A-BCD	3.92	671.63	0.006	3.92	0.0	5.437	A
A-B	56.32			56.32			
A-C	160.01			160.01			
D-AB	3.15	525.64	0.006	3.14	0.0	6.889	A
D-BC	1.35	337.30	0.004	1.34	0.0	10.715	B
C-ABD	71.60	645.45	0.111	71.44	0.2	6.368	A
C-D	0.00			0.00			
C-A	153.14			153.14			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	66.83	441.88	0.151	66.63	0.2	9.778	A
B-AD	153.38	395.61	0.388	152.58	0.6	15.056	C
A-BCD	5.21	694.27	0.008	5.20	0.0	5.276	A
A-B	68.87			68.87			
A-C	195.67			195.67			
D-AB	3.86	513.89	0.008	3.85	0.0	7.057	A
D-BC	1.65	318.94	0.005	1.64	0.0	11.345	B
C-ABD	95.13	663.86	0.143	94.86	0.2	6.421	A
C-D	0.00			0.00			
C-A	180.12			180.12			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	66.83	441.07	0.152	66.82	0.2	9.809	A
B-AD	153.38	395.52	0.388	153.35	0.6	15.156	C
A-BCD	5.21	694.21	0.008	5.21	0.0	5.282	A
A-B	68.87			68.87			
A-C	195.67			195.67			
D-AB	3.86	513.79	0.008	3.86	0.0	7.058	A
D-BC	1.65	318.84	0.005	1.65	0.0	11.349	B
C-ABD	95.20	663.94	0.143	95.20	0.2	6.423	A
C-D	0.00			0.00			
C-A	180.05			180.05			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	54.53	473.37	0.115	54.71	0.1	8.774	A
B-AD	125.27	416.57	0.301	126.03	0.4	12.673	B
A-BCD	3.92	671.53	0.006	3.93	0.0	5.446	A
A-B	56.32			56.32			
A-C	160.01			160.01			
D-AB	3.15	525.46	0.006	3.15	0.0	6.894	A
D-BC	1.35	337.16	0.004	1.35	0.0	10.719	B
C-ABD	71.69	645.58	0.111	71.96	0.2	6.372	A
C-D	0.00			0.00			
C-A	153.05			153.05			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	45.64	493.40	0.093	45.76	0.1	8.204	A
B-AD	104.93	431.44	0.243	105.39	0.3	11.276	B
A-BCD	3.09	655.26	0.005	3.10	0.0	5.569	A
A-B	47.21			47.21			
A-C	134.14			134.14			
D-AB	2.64	533.90	0.005	2.64	0.0	6.775	A
D-BC	1.13	350.48	0.003	1.13	0.0	10.304	B
C-ABD	57.18	633.49	0.090	57.35	0.1	6.346	A
C-D	0.00			0.00			
C-A	131.03			131.03			

2020 Baseline + Committed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way	4.53	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D6	2020 Baseline + Committed	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	334.00	100.000
B		✓	204.00	100.000
C		✓	226.00	100.000
D		✓	10.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0.000	155.000	179.000	0.000
	B	133.000	0.000	68.000	3.000
	C	160.000	63.000	0.000	3.000
	D	4.000	5.000	1.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To			
		A	B	C	D
From	A	0	1	1	0
	B	6	0	2	0
	C	1	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-CD	0.17	9.96	0.2	A
B-AD	0.38	15.97	0.6	C
A-BCD	0.00	0.00	0.0	A
A-B				
A-C				
D-AB	0.02	8.35	0.0	A
D-BC	0.01	10.71	0.0	B
C-ABD	0.16	6.88	0.3	A
C-D				
C-A				

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	52.59	502.92	0.105	52.12	0.1	8.133	A
B-AD	100.99	424.69	0.238	99.69	0.3	11.690	B
A-BCD	0.00	531.61	0.000	0.00	0.0	0.000	A
A-B	116.69			116.69			
A-C	134.76			134.76			
D-AB	4.90	463.11	0.011	4.86	0.0	7.856	A
D-BC	2.63	371.65	0.007	2.60	0.0	9.755	A
C-ABD	59.17	605.06	0.098	58.62	0.1	6.592	A
C-D	2.04			2.04			
C-A	108.93			108.93			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	62.88	481.09	0.131	62.74	0.2	8.770	A
B-AD	120.52	408.79	0.295	120.08	0.4	13.169	B
A-BCD	0.00	523.22	0.000	0.00	0.0	0.000	A
A-B	139.34			139.34			
A-C	160.92			160.92			
D-AB	5.85	452.80	0.013	5.84	0.0	8.054	A
D-BC	3.14	358.27	0.009	3.13	0.0	10.136	B
C-ABD	74.01	611.87	0.121	73.84	0.2	6.709	A
C-D	2.38			2.38			
C-A	126.78			126.78			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	77.15	446.49	0.173	76.91	0.2	9.924	A
B-AD	147.46	386.26	0.382	146.65	0.6	15.862	C
A-BCD	0.00	511.80	0.000	0.00	0.0	0.000	A
A-B	170.66			170.66			
A-C	197.08			197.08			
D-AB	7.17	438.37	0.016	7.15	0.0	8.348	A
D-BC	3.84	339.97	0.011	3.83	0.0	10.709	B
C-ABD	97.57	622.59	0.157	97.28	0.3	6.873	A
C-D	2.78			2.78			
C-A	148.48			148.48			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	77.15	445.63	0.173	77.14	0.2	9.958	A
B-AD	147.46	386.16	0.382	147.42	0.6	15.971	C
A-BCD	0.00	511.72	0.000	0.00	0.0	0.000	A
A-B	170.66			170.66			
A-C	197.08			197.08			
D-AB	7.17	438.32	0.016	7.17	0.0	8.349	A
D-BC	3.84	339.87	0.011	3.84	0.0	10.712	B
C-ABD	97.64	622.68	0.157	97.63	0.3	6.882	A
C-D	2.78			2.78			
C-A	148.41			148.41			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	62.88	479.90	0.131	63.11	0.2	8.809	A
B-AD	120.51	408.67	0.295	121.29	0.5	13.310	B
A-BCD	0.00	523.09	0.000	0.00	0.0	0.000	A
A-B	139.34			139.34			
A-C	160.92			160.92			
D-AB	5.85	452.72	0.013	5.86	0.0	8.057	A
D-BC	3.14	358.12	0.009	3.15	0.0	10.143	B
C-ABD	74.10	612.00	0.121	74.38	0.2	6.721	A
C-D	2.38			2.38			
C-A	126.69			126.69			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	52.59	501.46	0.105	52.73	0.1	8.180	A
B-AD	100.99	424.48	0.238	101.45	0.3	11.826	B
A-BCD	0.00	531.38	0.000	0.00	0.0	0.000	A
A-B	116.69			116.69			
A-C	134.76			134.76			
D-AB	4.90	462.99	0.011	4.91	0.0	7.860	A
D-BC	2.63	371.40	0.007	2.64	0.0	9.762	A
C-ABD	59.32	605.19	0.098	59.49	0.1	6.615	A
C-D	2.04			2.04			
C-A	108.79			108.79			

2020 Baseline + Committed + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way	4.81	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D7	2020 Baseline + Committed + Development	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	273.00	100.000
B		✓	208.00	100.000
C		✓	368.00	100.000
D		✓	5.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0.000	63.000	207.000	3.000
	B	139.000	0.000	68.000	1.000
	C	283.000	85.000	0.000	0.000
	D	3.000	1.000	1.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To			
		A	B	C	D
From	A	0	3	3	0
	B	2	0	2	0
	C	1	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-CD	0.18	10.31	0.2	B
B-AD	0.42	17.61	0.7	C
A-BCD	0.01	5.62	0.0	A
A-B				
A-C				
D-AB	0.01	7.45	0.0	A
D-BC	0.01	12.54	0.0	B
C-ABD	0.22	6.39	0.5	A
C-D				
C-A				

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	51.67	497.44	0.104	51.20	0.1	8.219	A
B-AD	104.93	408.42	0.257	103.54	0.3	11.991	B
A-BCD	3.23	650.70	0.005	3.21	0.0	5.608	A
A-B	47.20			47.20			
A-C	155.10			155.10			
D-AB	2.64	516.22	0.005	2.62	0.0	7.008	A
D-BC	1.13	330.18	0.003	1.11	0.0	10.939	B
C-ABD	93.09	678.38	0.137	92.18	0.2	6.157	A
C-D	0.00			0.00			
C-A	183.96			183.96			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	61.73	473.36	0.130	61.59	0.2	8.913	A
B-AD	125.26	389.06	0.322	124.75	0.5	13.863	B
A-BCD	4.15	666.34	0.006	4.14	0.0	5.488	A
A-B	56.30			56.30			
A-C	184.98			184.98			
D-AB	3.15	503.95	0.006	3.14	0.0	7.187	A
D-BC	1.35	312.75	0.004	1.34	0.0	11.559	B
C-ABD	119.98	699.92	0.171	119.66	0.3	6.229	A
C-D	0.00			0.00			
C-A	210.85			210.85			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	75.65	432.91	0.175	75.41	0.2	10.261	B
B-AD	153.36	361.81	0.424	152.35	0.7	17.442	C
A-BCD	5.59	688.48	0.008	5.59	0.0	5.330	A
A-B	68.83			68.83			
A-C	226.15			226.15			
D-AB	3.86	487.03	0.008	3.85	0.0	7.449	A
D-BC	1.65	288.83	0.006	1.64	0.0	12.534	B
C-ABD	162.71	730.01	0.223	162.15	0.4	6.374	A
C-D	0.00			0.00			
C-A	242.47			242.47			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	75.65	431.67	0.175	75.65	0.2	10.311	B
B-AD	153.36	361.65	0.424	153.31	0.7	17.613	C
A-BCD	5.60	688.36	0.008	5.60	0.0	5.337	A
A-B	68.83			68.83			
A-C	226.15			226.15			
D-AB	3.86	486.87	0.008	3.86	0.0	7.452	A
D-BC	1.65	288.66	0.006	1.65	0.0	12.542	B
C-ABD	162.90	730.23	0.223	162.88	0.5	6.385	A
C-D	0.00			0.00			
C-A	242.28			242.28			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	61.73	471.76	0.131	61.97	0.2	8.965	A
B-AD	125.26	388.86	0.322	126.23	0.5	14.034	B
A-BCD	4.15	666.14	0.006	4.16	0.0	5.501	A
A-B	56.30			56.30			
A-C	184.97			184.97			
D-AB	3.15	503.67	0.006	3.15	0.0	7.191	A
D-BC	1.35	312.51	0.004	1.35	0.0	11.569	B
C-ABD	120.22	700.26	0.172	120.76	0.3	6.254	A
C-D	0.00			0.00			
C-A	210.60			210.60			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	51.67	495.74	0.104	51.81	0.1	8.272	A
B-AD	104.92	408.10	0.257	105.47	0.4	12.157	B
A-BCD	3.24	650.38	0.005	3.24	0.0	5.616	A
A-B	47.20			47.20			
A-C	155.09			155.09			
D-AB	2.64	515.81	0.005	2.64	0.0	7.017	A
D-BC	1.13	329.89	0.003	1.13	0.0	10.949	B
C-ABD	93.47	678.70	0.138	93.80	0.2	6.187	A
C-D	0.00			0.00			
C-A	183.58			183.58			

2020 Baseline + Committed + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way	4.94	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D8	2020 Baseline + Committed + Development	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	386.00	100.000
B		✓	218.00	100.000
C		✓	267.00	100.000
D		✓	10.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0.000	155.000	231.000	0.000
	B	133.000	0.000	82.000	3.000
	C	174.000	90.000	0.000	3.000
	D	4.000	5.000	1.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To			
		A	B	C	D
From	A	0	1	1	0
	B	6	0	1	0
	C	1	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-CD	0.21	10.51	0.3	B
B-AD	0.41	18.19	0.7	C
A-BCD	0.00	0.00	0.0	A
A-B				
A-C				
D-AB	0.02	8.59	0.0	A
D-BC	0.01	11.30	0.0	B
C-ABD	0.23	7.57	0.4	A
C-D				
C-A				

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	63.14	508.12	0.124	62.57	0.1	8.149	A
B-AD	100.98	404.71	0.250	99.60	0.3	12.446	B
A-BCD	0.00	522.80	0.000	0.00	0.0	0.000	A
A-B	116.69			116.69			
A-C	173.91			173.91			
D-AB	4.90	455.30	0.011	4.85	0.0	7.992	A
D-BC	2.63	359.79	0.007	2.60	0.0	10.079	B
C-ABD	86.36	604.40	0.143	85.51	0.2	6.946	A
C-D	1.94			1.94			
C-A	112.71			112.71			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	75.49	482.04	0.157	75.31	0.2	8.933	A
B-AD	120.49	385.11	0.313	119.99	0.5	14.356	B
A-BCD	0.00	512.62	0.000	0.00	0.0	0.000	A
A-B	139.34			139.34			
A-C	207.66			207.66			
D-AB	5.85	443.22	0.013	5.84	0.0	8.230	A
D-BC	3.14	344.04	0.009	3.13	0.0	10.559	B
C-ABD	109.48	612.06	0.179	109.19	0.3	7.178	A
C-D	2.21			2.21			
C-A	128.33			128.33			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	92.61	439.62	0.211	92.29	0.3	10.456	B
B-AD	147.41	357.17	0.413	146.41	0.7	18.009	C
A-BCD	0.00	498.81	0.000	0.00	0.0	0.000	A
A-B	170.66			170.66			
A-C	254.34			254.34			
D-AB	7.17	426.22	0.017	7.15	0.0	8.590	A
D-BC	3.84	322.51	0.012	3.83	0.0	11.296	B
C-ABD	144.43	622.48	0.232	143.93	0.4	7.550	A
C-D	2.53			2.53			
C-A	147.01			147.01			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	92.62	438.40	0.211	92.61	0.3	10.512	B
B-AD	147.41	356.99	0.413	147.36	0.7	18.185	C
A-BCD	0.00	498.67	0.000	0.00	0.0	0.000	A
A-B	170.66			170.66			
A-C	254.34			254.34			
D-AB	7.17	426.13	0.017	7.17	0.0	8.592	A
D-BC	3.84	322.36	0.012	3.84	0.0	11.301	B
C-ABD	144.56	622.64	0.232	144.55	0.4	7.568	A
C-D	2.53			2.53			
C-A	146.88			146.88			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	75.49	480.43	0.157	75.80	0.2	8.990	A
B-AD	120.49	384.90	0.313	121.44	0.5	14.530	B
A-BCD	0.00	512.40	0.000	0.00	0.0	0.000	A
A-B	139.34			139.34			
A-C	207.66			207.66			
D-AB	5.85	443.08	0.013	5.86	0.0	8.235	A
D-BC	3.14	343.80	0.009	3.15	0.0	10.570	B
C-ABD	109.65	612.30	0.179	110.13	0.3	7.206	A
C-D	2.21			2.21			
C-A	128.17			128.17			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-CD	63.15	506.33	0.125	63.33	0.1	8.208	A
B-AD	100.97	404.39	0.250	101.51	0.4	12.617	B
A-BCD	0.00	522.46	0.000	0.00	0.0	0.000	A
A-B	116.69			116.69			
A-C	173.91			173.91			
D-AB	4.90	455.12	0.011	4.91	0.0	7.996	A
D-BC	2.63	359.44	0.007	2.64	0.0	10.091	B
C-ABD	86.59	604.62	0.143	86.90	0.2	6.981	A
C-D	1.94			1.94			
C-A	112.48			112.48			

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.0.0.4211 []

For sales and distribution information, program advice and maintenance, contact TRL:
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Filename: Junction 4 - Station Road - Cardiff Road.j9
Path: P:\JNY8501 - St Cyres Lower School\Transport\Picady
Report generation date: 27/11/2015 13:11:15

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2015 Baseline							
Stream B-C	0.0	10.80	0.01	B	0.0	32.17	0.04	D
Stream B-A	0.4	16.30	0.30	C	3.7	60.16	0.81	F
Stream C-AB	0.0	5.31	0.02	A	0.0	4.27	0.02	A
Stream C-A								
Stream A-B								
Stream A-C								
	2020 Baseline							
Stream B-C	0.0	11.51	0.01	B	0.7	474.63	0.91	F
Stream B-A	0.5	18.92	0.35	C	8.3	121.78	0.95	F
Stream C-AB	0.0	5.24	0.02	A	0.0	4.18	0.02	A
Stream C-A								
Stream A-B								
Stream A-C								
	2020 Baseline + Committed							
Stream B-C	0.0	11.53	0.01	B	0.9	1019.61	0.99	F
Stream B-A	0.5	19.16	0.36	C	9.7	140.50	0.98	F
Stream C-AB	0.0	5.19	0.02	A	0.0	4.11	0.02	A
Stream C-A								
Stream A-B								
Stream A-C								
	2020 Baseline + Committed + Development							
Stream B-C	0.0	11.60	0.01	B	0.9	1048.54	1.01	F
Stream B-A	0.6	19.54	0.36	C	10.8	153.95	1.00	F
Stream C-AB	0.0	5.15	0.02	A	0.0	4.09	0.02	A
Stream C-A								
Stream A-B								
Stream A-C								

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

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	20/11/2015
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EUR"alice.nolan
Description	

Units

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

Analysis Options

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

Demand Set Summary

Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
2015 Baseline	AM	ONE HOUR	07:45	09:15	15
2015 Baseline	PM	ONE HOUR	16:45	18:15	15
2020 Baseline	AM	ONE HOUR	07:45	09:15	15
2020 Baseline	PM	ONE HOUR	16:45	18:15	15
2020 Baseline + Committed	AM	ONE HOUR	07:45	09:15	15
2020 Baseline + Committed	PM	ONE HOUR	16:45	18:15	15
2020 Baseline + Committed + Development	AM	ONE HOUR	07:45	09:15	15
2020 Baseline + Committed + Development	PM	ONE HOUR	16:45	18:15	15

2015 Baseline, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.07	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Cardiff Road (south)		Major
B	Station Road		Minor
C	Cardiff Road (north)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.00			0.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	7.00	5.50	5.00	5.00	5.00		1.00	0	100

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	626.193	0.114	0.288	0.181	0.412
1	B-C	521.768	0.080	0.202	-	-
1	C-B	573.963	0.222	0.222	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D1	2015 Baseline	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	848.00	100.000
B		✓	91.00	100.000
C		✓	496.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0.000	318.000	530.000
	B	88.000	0.000	3.000
	C	491.000	5.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To		
		A	B	C
From	A	0	1	5
	B	0	0	0
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.01	10.80	0.0	B
B-A	0.30	16.30	0.4	C
C-AB	0.02	5.31	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	2.26	403.53	0.006	2.24	0.0	8.971	A
B-A	66.25	415.27	0.160	65.50	0.2	10.271	B
C-AB	7.39	703.43	0.011	7.34	0.0	5.295	A
C-A	366.03			366.03			
A-B	239.41			239.41			
A-C	399.01			399.01			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	2.70	377.52	0.007	2.69	0.0	9.604	A
B-A	79.11	374.32	0.211	78.80	0.3	12.170	B
C-AB	10.14	730.91	0.014	10.13	0.0	5.123	A
C-A	435.75			435.75			
A-B	285.88			285.88			
A-C	476.46			476.46			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3.30	336.95	0.010	3.29	0.0	10.789	B
B-A	96.89	317.71	0.305	96.23	0.4	16.205	C
C-AB	15.08	769.00	0.020	15.04	0.0	4.915	A
C-A	531.03			531.03			
A-B	350.12			350.12			
A-C	583.54			583.54			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3.30	336.55	0.010	3.30	0.0	10.802	B
B-A	96.89	317.71	0.305	96.87	0.4	16.297	C
C-AB	15.09	769.02	0.020	15.09	0.0	4.925	A
C-A	531.02			531.02			
A-B	350.12			350.12			
A-C	583.54			583.54			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	2.70	377.09	0.007	2.71	0.0	9.617	A
B-A	79.11	374.32	0.211	79.75	0.3	12.249	B
C-AB	10.16	730.93	0.014	10.19	0.0	5.142	A
C-A	435.73			435.73			
A-B	285.88			285.88			
A-C	476.46			476.46			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	2.26	403.16	0.006	2.26	0.0	8.981	A
B-A	66.25	415.26	0.160	66.57	0.2	10.335	B
C-AB	7.42	703.45	0.011	7.43	0.0	5.308	A
C-A	366.00			366.00			
A-B	239.41			239.41			
A-C	399.01			399.01			

2015 Baseline, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	8.26	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D2	2015 Baseline	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	639.00	100.000
B		✓	223.00	100.000
C		✓	754.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0.000	122.000	517.000
	B	219.000	0.000	4.000
	C	750.000	4.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To		
		A	B	C
From	A	0	1	2
	B	0	0	0
	C	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.04	32.17	0.0	D
B-A	0.81	60.16	3.7	F
C-AB	0.02	4.27	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3.01	362.21	0.008	2.98	0.0	10.021	B
B-A	164.87	401.37	0.411	162.16	0.7	14.891	B
C-AB	7.25	855.99	0.008	7.21	0.0	4.265	A
C-A	560.40			560.40			
A-B	91.85			91.85			
A-C	389.22			389.22			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3.60	296.96	0.012	3.58	0.0	12.270	B
B-A	196.88	357.26	0.551	194.92	1.2	21.903	C
C-AB	10.07	906.36	0.011	10.05	0.0	4.041	A
C-A	667.76			667.76			
A-B	109.68			109.68			
A-C	464.77			464.77			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	4.40	136.82	0.032	4.32	0.0	27.154	D
B-A	241.12	296.27	0.814	232.33	3.4	50.611	F
C-AB	15.00	971.79	0.015	14.97	0.0	3.787	A
C-A	815.17			815.17			
A-B	134.32			134.32			
A-C	569.23			569.23			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	4.40	116.25	0.038	4.38	0.0	32.173	D
B-A	241.12	296.28	0.814	239.60	3.7	60.156	F
C-AB	15.00	971.80	0.015	15.00	0.0	3.788	A
C-A	815.17			815.17			
A-B	134.32			134.32			
A-C	569.23			569.23			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3.60	282.04	0.013	3.70	0.0	12.939	B
B-A	196.88	357.30	0.551	206.68	1.3	25.260	D
C-AB	10.08	906.37	0.011	10.10	0.0	4.045	A
C-A	667.75			667.75			
A-B	109.68			109.68			
A-C	464.77			464.77			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3.01	358.31	0.008	3.03	0.0	10.132	B
B-A	164.87	401.38	0.411	167.18	0.7	15.518	C
C-AB	7.28	856.01	0.009	7.29	0.0	4.267	A
C-A	560.37			560.37			
A-B	91.85			91.85			
A-C	389.22			389.22			

2020 Baseline, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.23	A

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D4	2020 Baseline	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	912.00	100.000
B		✓	98.00	100.000
C		✓	533.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0.000	342.000	570.000
	B	95.000	0.000	3.000
	C	528.000	5.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To		
		A	B	C
From	A	0	1	5
	B	0	0	0
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.01	11.51	0.0	B
B-A	0.35	18.92	0.5	C
C-AB	0.02	5.24	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	2.26	393.32	0.006	2.24	0.0	9.205	A
B-A	71.52	399.71	0.179	70.66	0.2	10.912	B
C-AB	7.79	714.05	0.011	7.74	0.0	5.225	A
C-A	393.48			393.48			
A-B	257.48			257.48			
A-C	429.13			429.13			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	2.70	364.25	0.007	2.69	0.0	9.956	A
B-A	85.40	355.67	0.240	85.02	0.3	13.283	B
C-AB	10.82	743.67	0.015	10.80	0.0	5.045	A
C-A	468.34			468.34			
A-B	307.45			307.45			
A-C	512.42			512.42			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3.30	316.76	0.010	3.29	0.0	11.484	B
B-A	104.60	294.78	0.355	103.70	0.5	18.722	C
C-AB	16.35	784.57	0.021	16.31	0.0	4.830	A
C-A	570.49			570.49			
A-B	376.55			376.55			
A-C	627.58			627.58			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3.30	316.10	0.010	3.30	0.0	11.508	B
B-A	104.60	294.78	0.355	104.57	0.5	18.917	C
C-AB	16.36	784.58	0.021	16.36	0.0	4.838	A
C-A	570.48			570.48			
A-B	376.55			376.55			
A-C	627.58			627.58			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	2.70	363.62	0.007	2.71	0.0	9.974	A
B-A	85.40	355.68	0.240	86.28	0.3	13.405	B
C-AB	10.83	743.70	0.015	10.87	0.0	5.066	A
C-A	468.32			468.32			
A-B	307.45			307.45			
A-C	512.42			512.42			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	2.26	392.84	0.006	2.27	0.0	9.218	A
B-A	71.52	399.71	0.179	71.92	0.2	10.995	B
C-AB	7.82	714.08	0.011	7.84	0.0	5.238	A
C-A	393.45			393.45			
A-B	257.48			257.48			
A-C	429.13			429.13			

2020 Baseline, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	17.63	C

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D5	2020 Baseline	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	686.00	100.000
B		✓	239.00	100.000
C		✓	809.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0.000	131.000	555.000
	B	235.000	0.000	4.000
	C	805.000	4.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To		
		A	B	C
From	A	0	1	2
	B	0	0	0
	C	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.91	474.63	0.7	F
B-A	0.95	121.78	8.3	F
C-AB	0.02	4.18	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3.01	341.56	0.009	2.98	0.0	10.631	B
B-A	176.92	384.90	0.460	173.63	0.8	16.795	C
C-AB	7.67	875.28	0.009	7.64	0.0	4.174	A
C-A	601.38			601.38			
A-B	98.62			98.62			
A-C	417.83			417.83			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3.60	256.99	0.014	3.58	0.0	14.206	B
B-A	211.26	337.55	0.626	208.33	1.6	27.239	D
C-AB	10.74	928.24	0.012	10.73	0.0	3.948	A
C-A	716.53			716.53			
A-B	117.77			117.77			
A-C	498.93			498.93			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	4.40	26.44	0.167	3.80	0.2	155.969	F
B-A	258.74	272.07	0.951	239.61	6.3	83.257	F
C-AB	16.18	996.49	0.016	16.15	0.0	3.697	A
C-A	874.55			874.55			
A-B	144.23			144.23			
A-C	611.07			611.07			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	4.40	4.85	0.908	2.24	0.7	474.633	F
B-A	258.74	271.99	0.951	250.95	8.3	121.782	F
C-AB	16.19	996.50	0.016	16.19	0.0	3.698	A
C-A	874.54			874.54			
A-B	144.23			144.23			
A-C	611.07			611.07			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3.60	210.68	0.017	6.35	0.0	17.842	C
B-A	211.26	336.72	0.627	237.02	1.8	43.126	E
C-AB	10.75	928.26	0.012	10.78	0.0	3.951	A
C-A	716.52			716.52			
A-B	117.77			117.77			
A-C	498.93			498.93			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3.01	335.00	0.009	3.05	0.0	10.847	B
B-A	176.92	384.91	0.460	180.77	0.9	17.946	C
C-AB	7.70	875.30	0.009	7.71	0.0	4.175	A
C-A	601.36			601.36			
A-B	98.62			98.62			
A-C	417.83			417.83			

2020 Baseline + Committed, AM

Data Errors and Warnings
No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.24	A

Junction Network Options
[same as above]

Arms

Arms
[same as above]

Major Arm Geometry
[same as above]

Minor Arm Geometry
[same as above]

Slope / Intercept / Capacity
[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D6	2020 Baseline + Committed	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	912.00	100.000
B		✓	98.00	100.000
C		✓	545.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0.000	342.000	570.000
	B	95.000	0.000	3.000
	C	540.000	5.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To		
		A	B	C
From	A	0	1	5
	B	0	0	0
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.01	11.53	0.0	B
B-A	0.36	19.16	0.5	C
C-AB	0.02	5.19	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	2.26	393.21	0.006	2.24	0.0	9.207	A
B-A	71.52	398.07	0.180	70.66	0.2	10.967	B
C-AB	7.89	720.23	0.011	7.84	0.0	5.182	A
C-A	402.42			402.42			
A-B	257.48			257.48			
A-C	429.13			429.13			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	2.70	364.03	0.007	2.69	0.0	9.962	A
B-A	85.40	353.71	0.241	85.02	0.3	13.377	B
C-AB	10.98	750.90	0.015	10.96	0.0	4.998	A
C-A	478.97			478.97			
A-B	307.45			307.45			
A-C	512.42			512.42			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3.30	316.13	0.010	3.29	0.0	11.507	B
B-A	104.60	292.38	0.358	103.69	0.5	18.984	C
C-AB	16.62	793.13	0.021	16.58	0.0	4.780	A
C-A	583.44			583.44			
A-B	376.55			376.55			
A-C	627.58			627.58			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3.30	315.44	0.010	3.30	0.0	11.532	B
B-A	104.60	292.39	0.358	104.56	0.5	19.158	C
C-AB	16.63	793.15	0.021	16.63	0.0	4.788	A
C-A	583.42			583.42			
A-B	376.55			376.55			
A-C	627.58			627.58			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	2.70	363.39	0.007	2.71	0.0	9.982	A
B-A	85.40	353.72	0.241	86.30	0.3	13.505	B
C-AB	10.99	750.93	0.015	11.03	0.0	5.019	A
C-A	478.95			478.95			
A-B	307.45			307.45			
A-C	512.42			512.42			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	2.26	392.73	0.006	2.27	0.0	9.221	A
B-A	71.52	398.07	0.180	71.93	0.2	11.051	B
C-AB	7.92	720.26	0.011	7.94	0.0	5.193	A
C-A	402.38			402.38			
A-B	257.48			257.48			
A-C	429.13			429.13			

2020 Baseline + Committed, PM

Data Errors and Warnings
No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	21.00	C

Junction Network Options
[same as above]

Arms

Arms
[same as above]

Major Arm Geometry
[same as above]

Minor Arm Geometry
[same as above]

Slope / Intercept / Capacity
[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D7	2020 Baseline + Committed	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	686.00	100.000
B		✓	239.00	100.000
C		✓	844.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0.000	131.000	555.000
	B	235.000	0.000	4.000
	C	840.000	4.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To		
		A	B	C
From	A	0	1	2
	B	0	0	0
	C	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.99	1019.61	0.9	F
B-A	0.98	140.50	9.7	F
C-AB	0.02	4.11	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3.01	339.61	0.009	2.98	0.0	10.692	B
B-A	176.92	380.10	0.465	173.56	0.8	17.169	C
C-AB	7.90	890.78	0.009	7.86	0.0	4.102	A
C-A	627.51			627.51			
A-B	98.62			98.62			
A-C	417.83			417.83			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3.60	251.45	0.014	3.57	0.0	14.523	B
B-A	211.26	331.82	0.637	208.15	1.6	28.395	D
C-AB	11.08	945.63	0.012	11.07	0.0	3.876	A
C-A	747.66			747.66			
A-B	117.77			117.77			
A-C	498.93			498.93			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	4.40	4.46	0.988	1.80	0.7	958.230	F
B-A	258.74	265.05	0.976	236.91	7.1	91.599	F
C-AB	16.73	1015.90	0.016	16.70	0.0	3.627	A
C-A	912.53			912.53			
A-B	144.23			144.23			
A-C	611.07			611.07			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	4.40	6.51	0.677	3.62	0.9	1019.612	F
B-A	258.74	264.48	0.978	248.22	9.7	140.499	F
C-AB	16.74	1015.92	0.016	16.74	0.0	3.628	A
C-A	912.52			912.52			
A-B	144.23			144.23			
A-C	611.07			611.07			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3.60	192.99	0.019	6.96	0.0	19.679	C
B-A	211.26	330.83	0.639	242.27	2.0	50.616	F
C-AB	11.09	945.65	0.012	11.12	0.0	3.879	A
C-A	747.65			747.65			
A-B	117.77			117.77			
A-C	498.93			498.93			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3.01	332.44	0.009	3.05	0.0	10.929	B
B-A	176.92	380.11	0.465	181.14	0.9	18.450	C
C-AB	7.92	890.80	0.009	7.94	0.0	4.105	A
C-A	627.48			627.48			
A-B	98.62			98.62			
A-C	417.83			417.83			

2020 Baseline + Committed + Development, AM

Data Errors and Warnings
No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	1.25	A

Junction Network Options
[same as above]

Arms

Arms
[same as above]

Major Arm Geometry
[same as above]

Minor Arm Geometry
[same as above]

Slope / Intercept / Capacity
[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D8	2020 Baseline + Committed + Development	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	916.00	100.000
B		✓	98.00	100.000
C		✓	557.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0.000	342.000	574.000
	B	95.000	0.000	3.000
	C	552.000	5.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To		
		A	B	C
From	A	0	1	5
	B	0	0	0
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	0.01	11.60	0.0	B
B-A	0.36	19.54	0.6	C
C-AB	0.02	5.15	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	2.26	392.48	0.006	2.24	0.0	9.225	A
B-A	71.52	395.56	0.181	70.65	0.2	11.052	B
C-AB	8.00	725.85	0.011	7.95	0.0	5.144	A
C-A	411.34			411.34			
A-B	257.48			257.48			
A-C	432.14			432.14			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	2.70	363.02	0.007	2.69	0.0	9.990	A
B-A	85.40	350.72	0.244	85.01	0.3	13.528	B
C-AB	11.15	757.50	0.015	11.13	0.0	4.957	A
C-A	489.58			489.58			
A-B	307.45			307.45			
A-C	516.01			516.01			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3.30	314.35	0.011	3.29	0.0	11.573	B
B-A	104.60	288.72	0.362	103.66	0.6	19.346	C
C-AB	16.92	800.94	0.021	16.89	0.0	4.736	A
C-A	596.34			596.34			
A-B	376.55			376.55			
A-C	631.99			631.99			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3.30	313.63	0.011	3.30	0.0	11.600	B
B-A	104.60	288.72	0.362	104.56	0.6	19.538	C
C-AB	16.94	800.96	0.021	16.94	0.0	4.743	A
C-A	596.33			596.33			
A-B	376.55			376.55			
A-C	631.99			631.99			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	2.70	362.35	0.007	2.71	0.0	10.009	B
B-A	85.40	350.73	0.244	86.33	0.3	13.661	B
C-AB	11.16	757.53	0.015	11.20	0.0	4.978	A
C-A	489.57			489.57			
A-B	307.45			307.45			
A-C	516.01			516.01			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	2.26	391.99	0.006	2.27	0.0	9.237	A
B-A	71.52	395.56	0.181	71.94	0.2	11.140	B
C-AB	8.03	725.88	0.011	8.05	0.0	5.154	A
C-A	411.31			411.31			
A-B	257.48			257.48			
A-C	432.14			432.14			

2020 Baseline + Committed + Development, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	22.61	C

Junction Network Options

[same as above]

Arms

Arms

[same as above]

Major Arm Geometry

[same as above]

Minor Arm Geometry

[same as above]

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Model start time (HH:mm)	Model finish time (HH:mm)	Time segment length (min)
D9	2020 Baseline + Committed + Development	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	693.00	100.000
B		✓	239.00	100.000
C		✓	856.00	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0.000	131.000	562.000
	B	235.000	0.000	4.000
	C	852.000	4.000	0.000

Vehicle Mix

Heavy Vehicle proportion

		To		
		A	B	C
From	A	0	1	2
	B	0	0	0
	C	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (PCU)	Max LOS
B-C	1.01	1048.54	0.9	F
B-A	1.00	153.95	10.8	F
C-AB	0.02	4.09	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3.01	337.44	0.009	2.98	0.0	10.761	B
B-A	176.92	376.93	0.469	173.51	0.9	17.425	C
C-AB	7.98	895.24	0.009	7.95	0.0	4.082	A
C-A	636.46			636.46			
A-B	98.62			98.62			
A-C	423.10			423.10			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3.60	246.85	0.015	3.57	0.0	14.798	B
B-A	211.26	328.03	0.644	208.01	1.7	29.210	D
C-AB	11.22	950.64	0.012	11.21	0.0	3.856	A
C-A	758.30			758.30			
A-B	117.77			117.77			
A-C	505.23			505.23			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	4.40	4.38	1.006	1.78	0.7	976.224	F
B-A	258.74	260.42	0.994	234.91	7.6	97.661	F
C-AB	16.97	1021.48	0.017	16.95	0.0	3.608	A
C-A	925.50			925.50			
A-B	144.23			144.23			
A-C	618.77			618.77			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	4.40	6.37	0.692	3.58	0.9	1048.541	F
B-A	258.74	259.87	0.996	246.21	10.8	153.947	F
C-AB	16.98	1021.49	0.017	16.98	0.0	3.612	A
C-A	925.49			925.49			
A-B	144.23			144.23			
A-C	618.77			618.77			

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

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3.60	178.89	0.020	7.02	0.0	21.333	C
B-A	211.26	327.07	0.646	246.13	2.0	56.989	F
C-AB	11.23	950.66	0.012	11.26	0.0	3.861	A
C-A	758.29			758.29			
A-B	117.77			117.77			
A-C	505.23			505.23			

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

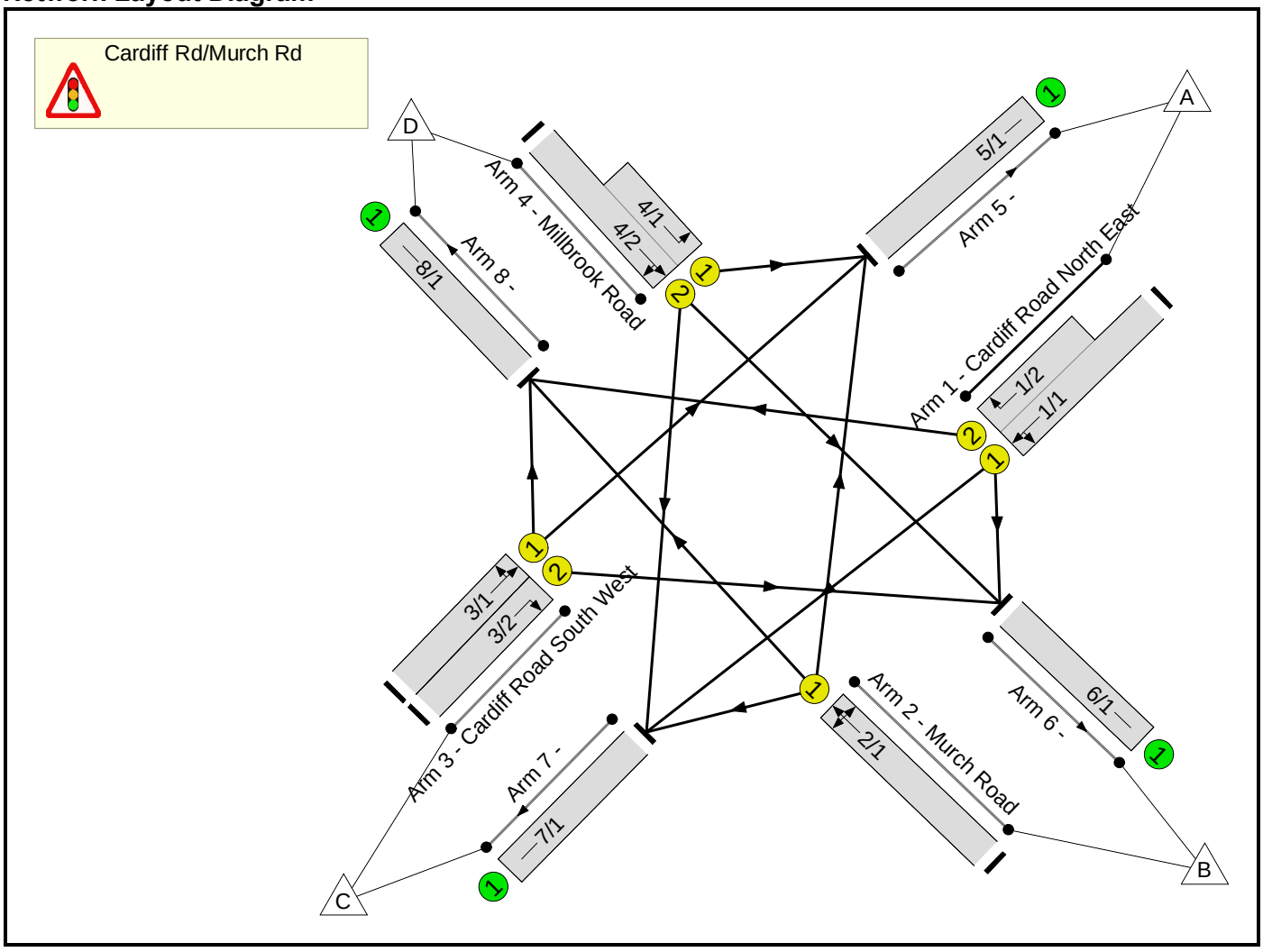
Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	LOS
B-C	3.01	329.84	0.009	3.06	0.0	11.019	B
B-A	176.92	376.94	0.469	181.41	0.9	18.802	C
C-AB	8.01	895.26	0.009	8.03	0.0	4.085	A
C-A	636.43			636.43			
A-B	98.62			98.62			
A-C	423.10			423.10			

Full Input Data And Results

User and Project Details

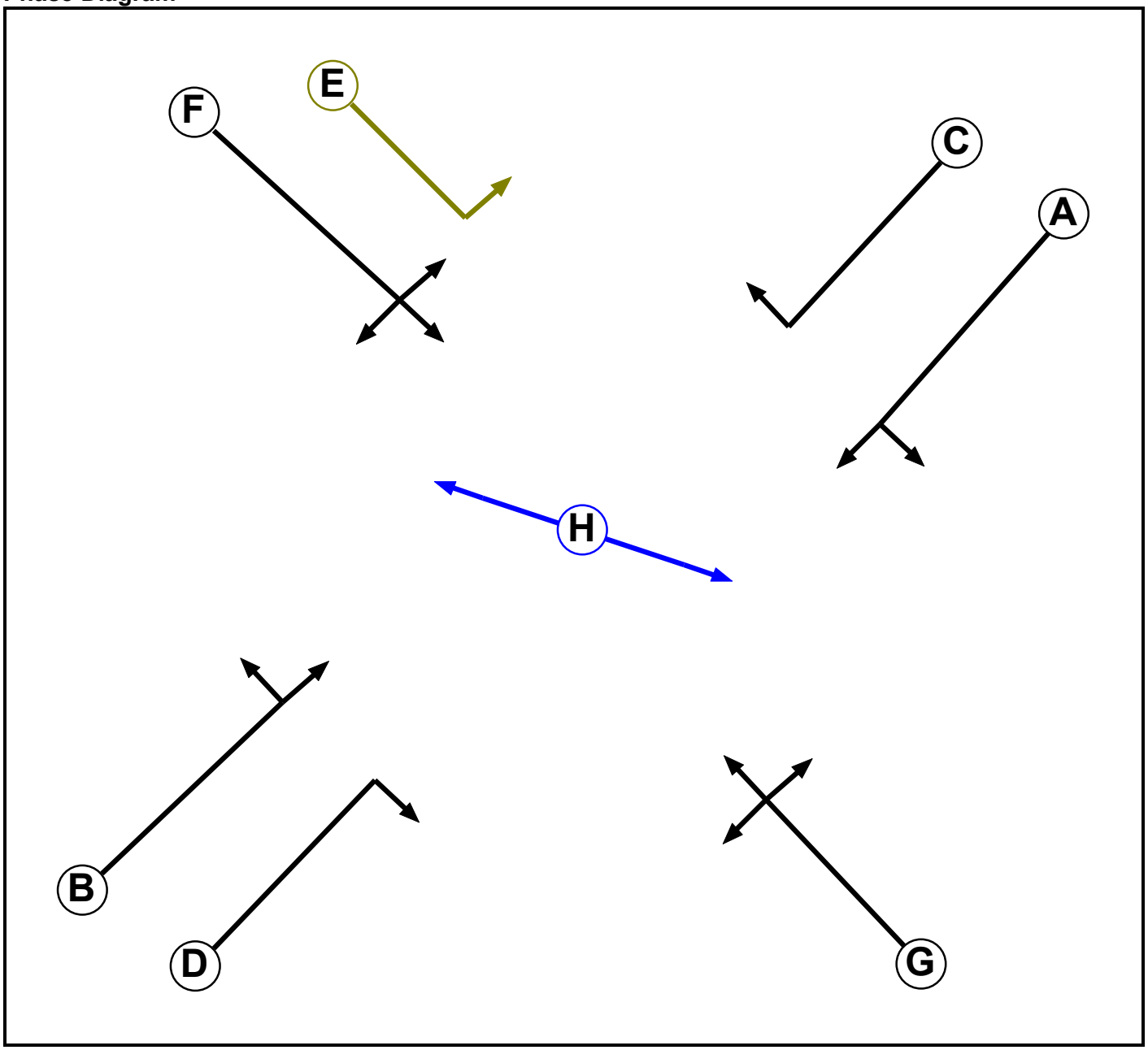
Project:	**JNY8501 St. Cyres Lower School**
Title:	**Existing Signalised Crossroads**
Location:	
File name:	Cardiff Rd-Murch Rd-Millbrook Rd.lsg3x
Author:	Pauline Pettitt
Company:	RPS Transport
Address:	20 Western Avenue, Milton Park, Abingdon OX14 4SH
Notes:	

Network Layout Diagram



Full Input Data And Results

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Filter	F	7	2
F	Traffic		7	7
G	Traffic		7	7
H	Pedestrian		10	10

Full Input Data And Results

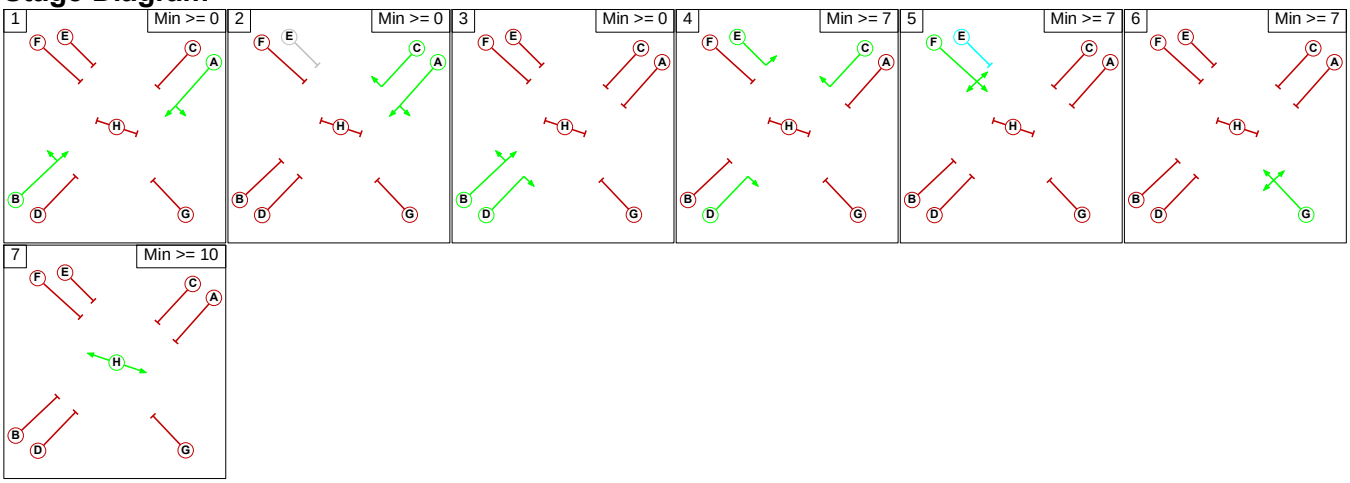
Phase Intergreens Matrix

		Starting Phase							
		A	B	C	D	E	F	G	H
Terminating Phase	A		-	-	6	-	5	6	10
	B	-		6	-	6	6	7	10
	C	-	5		-	-	5	5	10
	D	5	-	-		-	5	5	10
	E	-	5	-	-		-	5	10
	F	6	5	5	6	-		5	10
	G	5	6	6	6	6	5		10
	H	10	10	10	10	10	10	10	

Phases in Stage

Stage No.	Phases in Stage
1	A B
2	A C
3	B D
4	C D E
5	F
6	G
7	H

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Full Input Data And Results

Prohibited Stage Change

		To Stage						
		1	2	3	4	5	6	7
From Stage	1		6	6	6	6	7	10
	2	5		6	6	5	6	10
	3	5	6		6	6	7	10
	4	X	X	X		5	X	X
	5	6	6	6	6		5	10
	6	6	6	6	6	5		10
	7	10	10	10	10	10	10	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Cardiff Rd/Murch Rd
There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: Cardiff Rd/Murch Rd

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Cardiff Road North East)	U	A	2	3	60.0	Geom	-	3.40	0.00	Y	Arm 6 Left	6.00
											Arm 7 Ahead	Inf
1/2 (Cardiff Road North East)	U	C	2	3	6.0	Geom	-	3.40	0.00	Y	Arm 8 Right	Inf
2/1 (Murch Road)	U	G	2	3	60.0	Geom	-	3.80	0.00	Y	Arm 5 Right	12.00
											Arm 7 Left	9.00
											Arm 8 Ahead	Inf
3/1 (Cardiff Road South West)	U	B	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 5 Ahead	Inf
											Arm 8 Left	5.00
3/2 (Cardiff Road South West)	U	D	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 6 Right	12.00
4/1 (Millbrook Road)	U	F E	2	3	5.0	Geom	-	3.00	0.00	Y	Arm 5 Left	12.00
4/2 (Millbrook Road)	U	F	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 6 Ahead	Inf
											Arm 7 Right	17.00
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2015 AM Base'	08:00	09:00	01:00	
2: '2015 PM Base'	17:00	18:00	01:00	
3: '2020 AM'	08:00	09:00	01:00	
4: '2020 PM'	17:00	18:00	01:00	
5: '2020 + Comm AM'	08:00	09:00	01:00	
6: '2020 + Comm PM'	17:00	18:00	01:00	
7: '2020 + Comm + Dev AM'	08:00	09:00	01:00	
8: '2020 + Comm + Dev PM'	17:00	18:00	01:00	

Scenario 1: '2015 AM Base peds alternate cycles' (FG1: '2015 AM Base', Plan 2: 'Network Control Plan 2')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	81	445	44	570
	B	120	0	72	83	275
	C	495	42	0	28	565
	D	53	35	14	0	102
	Tot.	668	158	531	155	1512

Traffic Lane Flows

Lane	Scenario 1: 2015 AM Base peds alternate cycles
Junction: Cardiff Rd/Murch Rd	
1/1 (with short)	570(In) 526(Out)
1/2 (short)	44
2/1	275
3/1	523
3/2	42
4/1 (short)	53
4/2 (with short)	102(In) 49(Out)
5/1	668
6/1	158
7/1	531
8/1	155

Full Input Data And Results

Lane Saturation Flows

Junction: Cardiff Rd/Murch Rd								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Cardiff Road North East)	3.40	0.00	Y	Arm 6 Left	6.00	15.4 %	1883	1883
				Arm 7 Ahead	Inf	84.6 %		
1/2 (Cardiff Road North East)	3.40	0.00	Y	Arm 8 Right	Inf	100.0 %	1955	1955
2/1 (Murch Road)	3.80	0.00	Y	Arm 5 Right	12.00	43.6 %	1817	1817
				Arm 7 Left	9.00	26.2 %		
				Arm 8 Ahead	Inf	30.2 %		
3/1 (Cardiff Road South West)	3.00	0.00	Y	Arm 5 Ahead	Inf	94.6 %	1885	1885
				Arm 8 Left	5.00	5.4 %		
3/2 (Cardiff Road South West)	3.00	0.00	Y	Arm 6 Right	12.00	100.0 %	1702	1702
4/1 (Millbrook Road)	3.00	0.00	Y	Arm 5 Left	12.00	100.0 %	1702	1702
4/2 (Millbrook Road)	3.00	0.00	Y	Arm 6 Ahead	Inf	71.4 %	1868	1868
				Arm 7 Right	17.00	28.6 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2015 PM Base peds alternate cycles' (FG2: '2015 PM Base', Plan 2: 'Network Control Plan 2')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	108	580	43	731
	B	99	0	38	77	214
	C	482	29	0	8	519
	D	79	107	59	0	245
	Tot.	660	244	677	128	1709

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: 2015 PM Base peds alternate cycles
Junction: Cardiff Rd/Murch Rd	
1/1 (with short)	731(In) 688(Out)
1/2 (short)	43
2/1	214
3/1	490
3/2	29
4/1 (short)	79
4/2 (with short)	245(In) 166(Out)
5/1	660
6/1	244
7/1	677
8/1	128

Lane Saturation Flows

Junction: Cardiff Rd/Murch Rd

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Cardiff Road North East)	3.40	0.00	Y	Arm 6 Left	6.00	15.7 %	1881	1881
				Arm 7 Ahead	Inf	84.3 %		
1/2 (Cardiff Road North East)	3.40	0.00	Y	Arm 8 Right	Inf	100.0 %	1955	1955
2/1 (Murch Road)	3.80	0.00	Y	Arm 5 Right	12.00	46.3 %	1835	1835
				Arm 7 Left	9.00	17.8 %		
				Arm 8 Ahead	Inf	36.0 %		
3/1 (Cardiff Road South West)	3.00	0.00	Y	Arm 5 Ahead	Inf	98.4 %	1906	1906
				Arm 8 Left	5.00	1.6 %		
3/2 (Cardiff Road South West)	3.00	0.00	Y	Arm 6 Right	12.00	100.0 %	1702	1702
4/1 (Millbrook Road)	3.00	0.00	Y	Arm 5 Left	12.00	100.0 %	1702	1702
4/2 (Millbrook Road)	3.00	0.00	Y	Arm 6 Ahead	Inf	64.5 %	1857	1857
				Arm 7 Right	17.00	35.5 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 3: '2020 AM peds alternate cycles' (FG3: '2020 AM', Plan 2: 'Network Control Plan 2')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	87	478	47	612
	B	129	0	77	89	295
	C	532	45	0	30	607
	D	57	38	15	0	110
	Tot.	718	170	570	166	1624

Traffic Lane Flows

Lane	Scenario 3: 2020 AM peds alternate cycles
Junction: Cardiff Rd/Murch Rd	
1/1 (with short)	612(In) 565(Out)
1/2 (short)	47
2/1	295
3/1	562
3/2	45
4/1 (short)	57
4/2 (with short)	110(In) 53(Out)
5/1	718
6/1	170
7/1	570
8/1	166

Full Input Data And Results

Lane Saturation Flows

Junction: Cardiff Rd/Murch Rd								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Cardiff Road North East)	3.40	0.00	Y	Arm 6 Left	6.00	15.4 %	1883	1883
				Arm 7 Ahead	Inf	84.6 %		
1/2 (Cardiff Road North East)	3.40	0.00	Y	Arm 8 Right	Inf	100.0 %	1955	1955
2/1 (Murch Road)	3.80	0.00	Y	Arm 5 Right	12.00	43.7 %	1817	1817
				Arm 7 Left	9.00	26.1 %		
				Arm 8 Ahead	Inf	30.2 %		
3/1 (Cardiff Road South West)	3.00	0.00	Y	Arm 5 Ahead	Inf	94.7 %	1885	1885
				Arm 8 Left	5.00	5.3 %		
3/2 (Cardiff Road South West)	3.00	0.00	Y	Arm 6 Right	12.00	100.0 %	1702	1702
4/1 (Millbrook Road)	3.00	0.00	Y	Arm 5 Left	12.00	100.0 %	1702	1702
4/2 (Millbrook Road)	3.00	0.00	Y	Arm 6 Ahead	Inf	71.7 %	1868	1868
				Arm 7 Right	17.00	28.3 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 4: '2020 PM peds alternate cycles' (FG4: '2020 PM', Plan 2: 'Network Control Plan 2')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	116	623	46	785
	B	106	0	41	83	230
	C	517	31	0	9	557
	D	85	115	63	0	263
	Tot.	708	262	727	138	1835

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: 2020 PM peds alternate cycles
Junction: Cardiff Rd/Murch Rd	
1/1 (with short)	785(In) 739(Out)
1/2 (short)	46
2/1	230
3/1	526
3/2	31
4/1 (short)	85
4/2 (with short)	263(In) 178(Out)
5/1	708
6/1	262
7/1	727
8/1	138

Lane Saturation Flows

Junction: Cardiff Rd/Murch Rd								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Cardiff Road North East)	3.40	0.00	Y	Arm 6 Left	6.00	15.7 %	1881	1881
				Arm 7 Ahead	Inf	84.3 %		
1/2 (Cardiff Road North East)	3.40	0.00	Y	Arm 8 Right	Inf	100.0 %	1955	1955
2/1 (Murch Road)	3.80	0.00	Y	Arm 5 Right	12.00	46.1 %	1835	1835
				Arm 7 Left	9.00	17.8 %		
				Arm 8 Ahead	Inf	36.1 %		
3/1 (Cardiff Road South West)	3.00	0.00	Y	Arm 5 Ahead	Inf	98.3 %	1905	1905
				Arm 8 Left	5.00	1.7 %		
3/2 (Cardiff Road South West)	3.00	0.00	Y	Arm 6 Right	12.00	100.0 %	1702	1702
4/1 (Millbrook Road)	3.00	0.00	Y	Arm 5 Left	12.00	100.0 %	1702	1702
4/2 (Millbrook Road)	3.00	0.00	Y	Arm 6 Ahead	Inf	64.6 %	1857	1857
				Arm 7 Right	17.00	35.4 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 5: '2020 + Comm AM peds alternate cycles' (FG5: '2020 + Comm AM', Plan 2: 'Network Control Plan 2')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	124	478	47	649
	B	139	0	89	89	317
	C	532	88	0	30	650
	D	57	38	15	0	110
	Tot.	728	250	582	166	1726

Traffic Lane Flows

Lane	Scenario 5: 2020 + Comm AM peds alternate cycles
Junction: Cardiff Rd/Murch Rd	
1/1 (with short)	649(In) 602(Out)
1/2 (short)	47
2/1	317
3/1	562
3/2	88
4/1 (short)	57
4/2 (with short)	110(In) 53(Out)
5/1	728
6/1	250
7/1	582
8/1	166

Full Input Data And Results

Lane Saturation Flows

Junction: Cardiff Rd/Murch Rd								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Cardiff Road North East)	3.40	0.00	Y	Arm 6 Left	6.00	20.6 %	1859	1859
				Arm 7 Ahead	Inf	79.4 %		
1/2 (Cardiff Road North East)	3.40	0.00	Y	Arm 8 Right	Inf	100.0 %	1955	1955
2/1 (Murch Road)	3.80	0.00	Y	Arm 5 Right	12.00	43.8 %	1811	1811
				Arm 7 Left	9.00	28.1 %		
				Arm 8 Ahead	Inf	28.1 %		
3/1 (Cardiff Road South West)	3.00	0.00	Y	Arm 5 Ahead	Inf	94.7 %	1885	1885
				Arm 8 Left	5.00	5.3 %		
3/2 (Cardiff Road South West)	3.00	0.00	Y	Arm 6 Right	12.00	100.0 %	1702	1702
4/1 (Millbrook Road)	3.00	0.00	Y	Arm 5 Left	12.00	100.0 %	1702	1702
4/2 (Millbrook Road)	3.00	0.00	Y	Arm 6 Ahead	Inf	71.7 %	1868	1868
				Arm 7 Right	17.00	28.3 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 6: '2020 + Comm PM peds alternate cycles' (FG6: '2020 + Comm PM', Plan 2: 'Network Control Plan 2')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	146	623	46	815
	B	136	0	75	83	294
	C	517	66	0	9	592
	D	85	115	63	0	263
	Tot.	738	327	761	138	1964

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: 2020 + Comm PM peds alternate cycles
Junction: Cardiff Rd/Murch Rd	
1/1 (with short)	815(In) 769(Out)
1/2 (short)	46
2/1	294
3/1	526
3/2	66
4/1 (short)	85
4/2 (with short)	263(In) 178(Out)
5/1	738
6/1	327
7/1	761
8/1	138

Lane Saturation Flows

Junction: Cardiff Rd/Murch Rd

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Cardiff Road North East)	3.40	0.00	Y	Arm 6 Left	6.00	19.0 %	1866	1866
				Arm 7 Ahead	Inf	81.0 %		
1/2 (Cardiff Road North East)	3.40	0.00	Y	Arm 8 Right	Inf	100.0 %	1955	1955
2/1 (Murch Road)	3.80	0.00	Y	Arm 5 Right	12.00	46.3 %	1813	1813
				Arm 7 Left	9.00	25.5 %		
				Arm 8 Ahead	Inf	28.2 %		
3/1 (Cardiff Road South West)	3.00	0.00	Y	Arm 5 Ahead	Inf	98.3 %	1905	1905
				Arm 8 Left	5.00	1.7 %		
3/2 (Cardiff Road South West)	3.00	0.00	Y	Arm 6 Right	12.00	100.0 %	1702	1702
4/1 (Millbrook Road)	3.00	0.00	Y	Arm 5 Left	12.00	100.0 %	1702	1702
4/2 (Millbrook Road)	3.00	0.00	Y	Arm 6 Ahead	Inf	64.6 %	1857	1857
				Arm 7 Right	17.00	35.4 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 7: '2020 + Comm + Dev AM peds alternate cycles' (FG7: '2020 + Comm + Dev AM', Plan 2: 'Network

Full Input Data And Results
Control Plan 2')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	140	478	47	665
	B	190	0	101	118	409
	C	532	92	0	30	654
	D	57	47	15	0	119
	Tot.	779	279	594	195	1847

Traffic Lane Flows

Lane	Scenario 7: 2020 + Comm + Dev AM peds alternate cycles
Junction: Cardiff Rd/Murch Rd	
1/1 (with short)	665(In) 618(Out)
1/2 (short)	47
2/1	409
3/1	562
3/2	92
4/1 (short)	57
4/2 (with short)	119(In) 62(Out)
5/1	779
6/1	279
7/1	594
8/1	195

Full Input Data And Results

Lane Saturation Flows

Junction: Cardiff Rd/Murch Rd								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Cardiff Road North East)	3.40	0.00	Y	Arm 6 Left	6.00	22.7 %	1850	1850
				Arm 7 Ahead	Inf	77.3 %		
1/2 (Cardiff Road North East)	3.40	0.00	Y	Arm 8 Right	Inf	100.0 %	1955	1955
2/1 (Murch Road)	3.80	0.00	Y	Arm 5 Right	12.00	46.5 %	1815	1815
				Arm 7 Left	9.00	24.7 %		
				Arm 8 Ahead	Inf	28.9 %		
3/1 (Cardiff Road South West)	3.00	0.00	Y	Arm 5 Ahead	Inf	94.7 %	1885	1885
				Arm 8 Left	5.00	5.3 %		
3/2 (Cardiff Road South West)	3.00	0.00	Y	Arm 6 Right	12.00	100.0 %	1702	1702
4/1 (Millbrook Road)	3.00	0.00	Y	Arm 5 Left	12.00	100.0 %	1702	1702
4/2 (Millbrook Road)	3.00	0.00	Y	Arm 6 Ahead	Inf	75.8 %	1875	1875
				Arm 7 Right	17.00	24.2 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 8: '2020 + Comm + Dev PM peds alternate cycles' (FG8: '2020 + Comm + Dev PM', Plan 2: 'Network Control Plan 2')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	174	623	46	843
	B	188	0	88	112	388
	C	517	73	0	9	599
	D	85	131	63	0	279
	Tot.	790	378	774	167	2109

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 8: 2020 + Comm + Dev PM peds alternate cycles
Junction: Cardiff Rd/Murch Rd	
1/1 (with short)	843(In) 797(Out)
1/2 (short)	46
2/1	388
3/1	526
3/2	73
4/1 (short)	85
4/2 (with short)	279(In) 194(Out)
5/1	790
6/1	378
7/1	774
8/1	167

Lane Saturation Flows

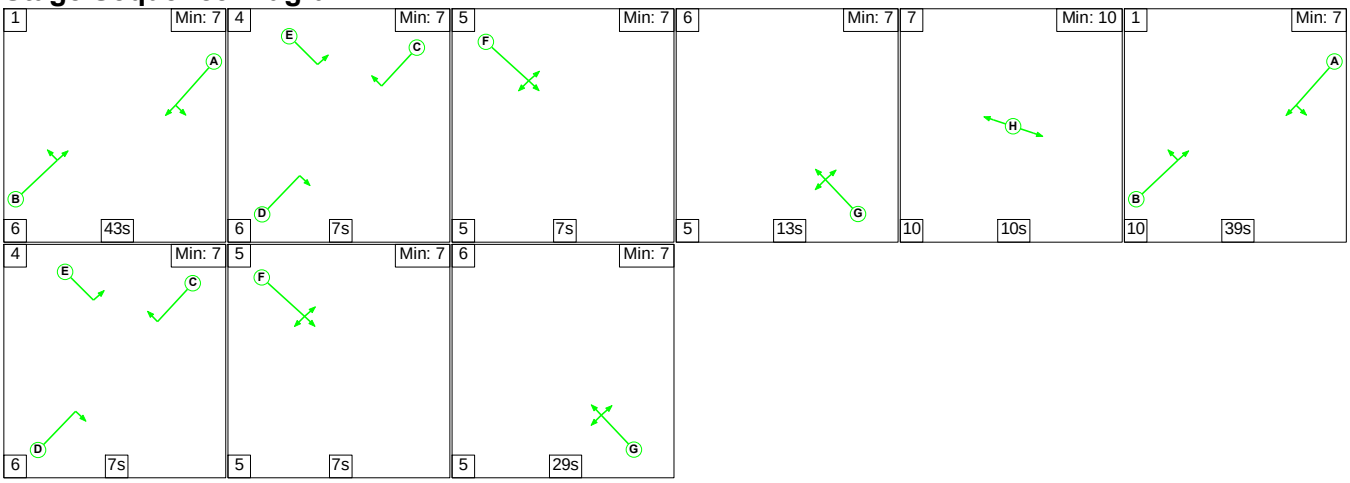
Junction: Cardiff Rd/Murch Rd

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Cardiff Road North East)	3.40	0.00	Y	Arm 6 Left	6.00	21.8 %	1854	1854
				Arm 7 Ahead	Inf	78.2 %		
1/2 (Cardiff Road North East)	3.40	0.00	Y	Arm 8 Right	Inf	100.0 %	1955	1955
2/1 (Murch Road)	3.80	0.00	Y	Arm 5 Right	12.00	48.5 %	1816	1816
				Arm 7 Left	9.00	22.7 %		
				Arm 8 Ahead	Inf	28.9 %		
3/1 (Cardiff Road South West)	3.00	0.00	Y	Arm 5 Ahead	Inf	98.3 %	1905	1905
				Arm 8 Left	5.00	1.7 %		
3/2 (Cardiff Road South West)	3.00	0.00	Y	Arm 6 Right	12.00	100.0 %	1702	1702
4/1 (Millbrook Road)	3.00	0.00	Y	Arm 5 Left	12.00	100.0 %	1702	1702
4/2 (Millbrook Road)	3.00	0.00	Y	Arm 6 Ahead	Inf	67.5 %	1862	1862
				Arm 7 Right	17.00	32.5 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 1: '2015 AM Base peds alternate cycles' (FG1: '2015 AM Base', Plan 2: 'Network Control Plan 2')

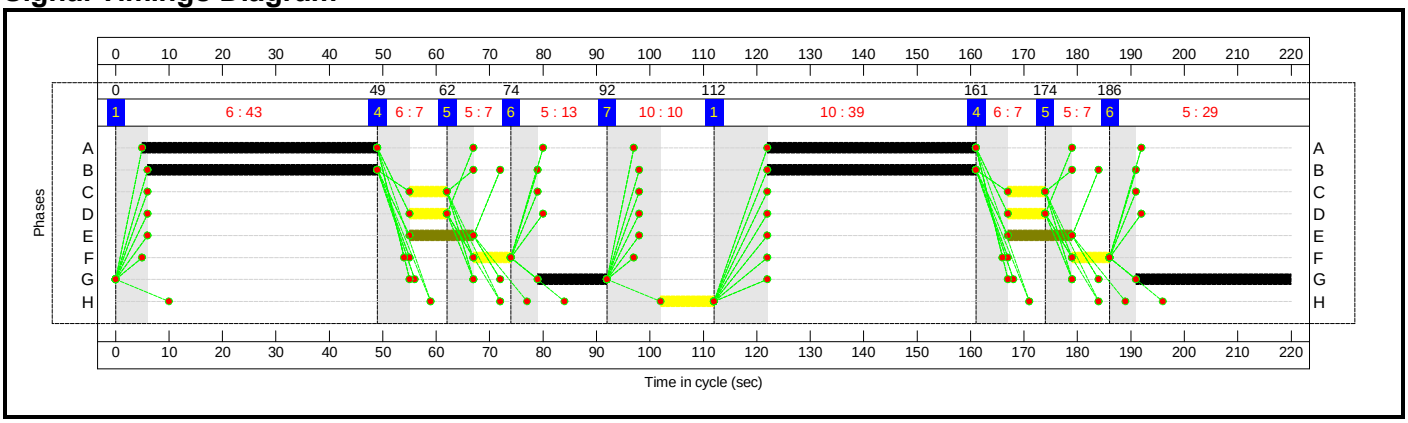
Stage Sequence Diagram



Stage Timings

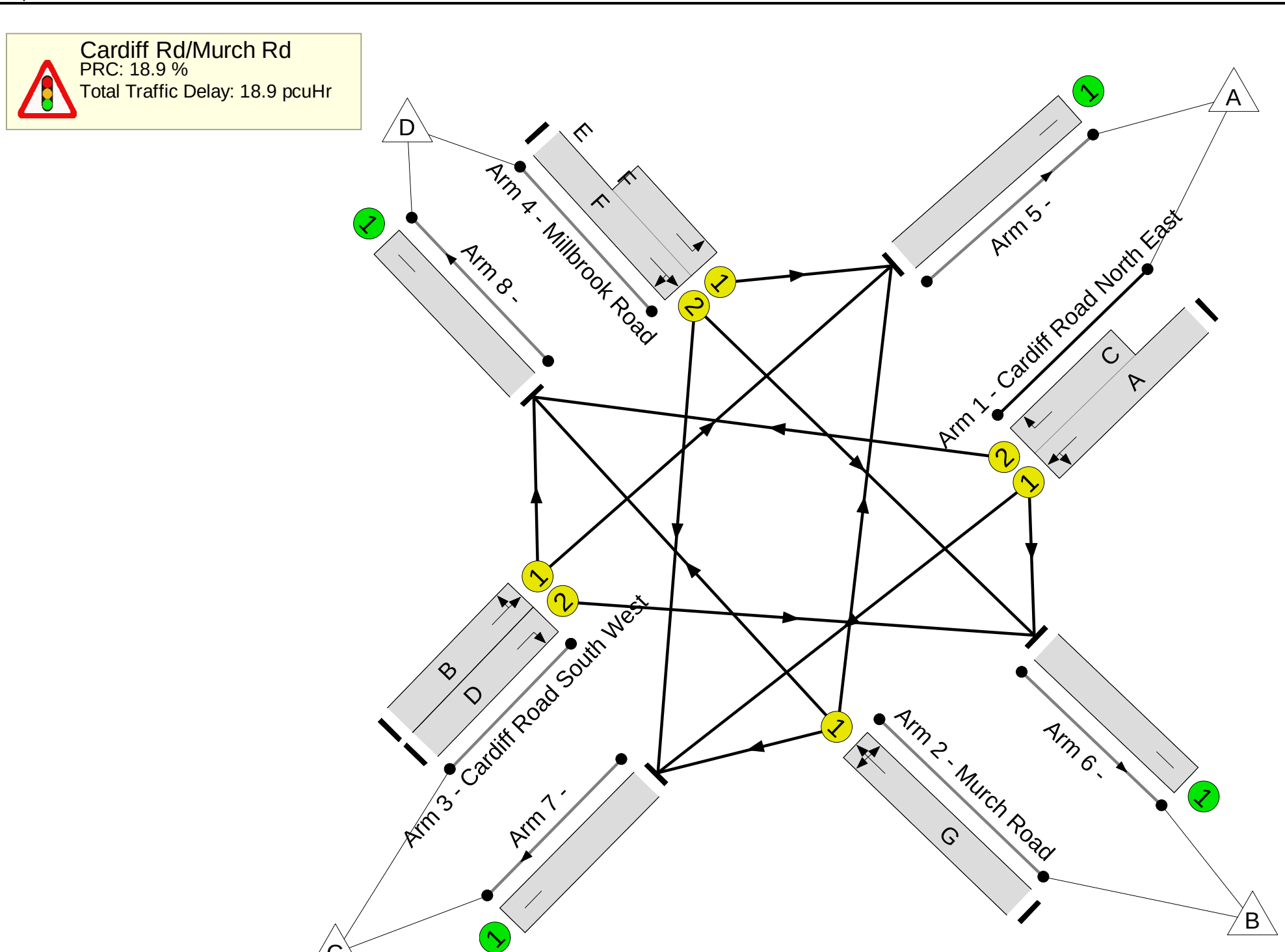
Stage	1	4	5	6	7	1	4	5	6
Duration	43	7	7	13	10	39	7	7	29
Change Point	0	49	62	74	92	112	161	174	186

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram


Cardiff Rd/Murch Rd
PRC: 18.9 %
Total Traffic Delay: 18.9 pcuHr
D
A
B
C
Arm 4 - Millbrook Road
Arm 5 -
Arm 8 -
Arm 1 - Cardiff Road North East
Arm 3 - Cardiff Road South West
Arm 2 - Murch Road
Arm 6 -
Arm 7 -
E
F
C
A
B
D
G
1
2

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Existing Signalised Crossroads	-	-	**N/A**	-	-		-	-	-	-	-	-	**75.7%**
Cardiff Rd/Murch Rd	-	-	**N/A**	-	-		-	-	-	-	-	-	**75.7%**
1/1+1/2	Cardiff Road North East Left Ahead Right	U	N/A	N/A	A C		2	83:14	-	570	1883:1955	695+58	75.6 : 75.6%
2/1	Murch Road Right Left Ahead	U	N/A	N/A	G		2	42	-	275	1817	363	75.7%
3/1	Cardiff Road South West Ahead Left	U	N/A	N/A	B		2	82	-	523	1885	720	72.7%
3/2	Cardiff Road South West Right	U	N/A	N/A	D		2	14	-	42	1702	124	33.9%
4/2+4/1	Millbrook Road Left Ahead Right	U	N/A	N/A	F	E	2	14:38	24	102	1868:1702	136+147	36.1 : 36.1%
5/1		U	N/A	N/A	-		-	-	-	668	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	158	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	531	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	155	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Existing Signalised Crossroads	**-**	**-**	**0**	**0**	**0**	**14.1**	**4.9**	**0.0**	**18.9**	**-**	**-**	**-**	**-**
Cardiff Rd/Murch Rd	**-**	**-**	**0**	**0**	**0**	**14.1**	**4.9**	**0.0**	**18.9**	**-**	**-**	**-**	**-**
1/1+1/2	570	570	-	-	-	4.8	1.5	-	6.4	40.1	15.5	1.5	17.0
2/1	275	275	-	-	-	3.2	1.5	-	4.7	61.7	8.8	1.5	10.3
3/1	523	523	-	-	-	4.2	1.3	-	5.6	38.2	14.4	1.3	15.7
3/2	42	42	-	-	-	0.6	0.3	-	0.8	70.4	1.2	0.3	1.5
4/2+4/1	102	102	-	-	-	1.2	0.3	-	1.5	53.0	1.4	0.3	1.7
5/1	668	668	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	158	158	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	531	531	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	155	155	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

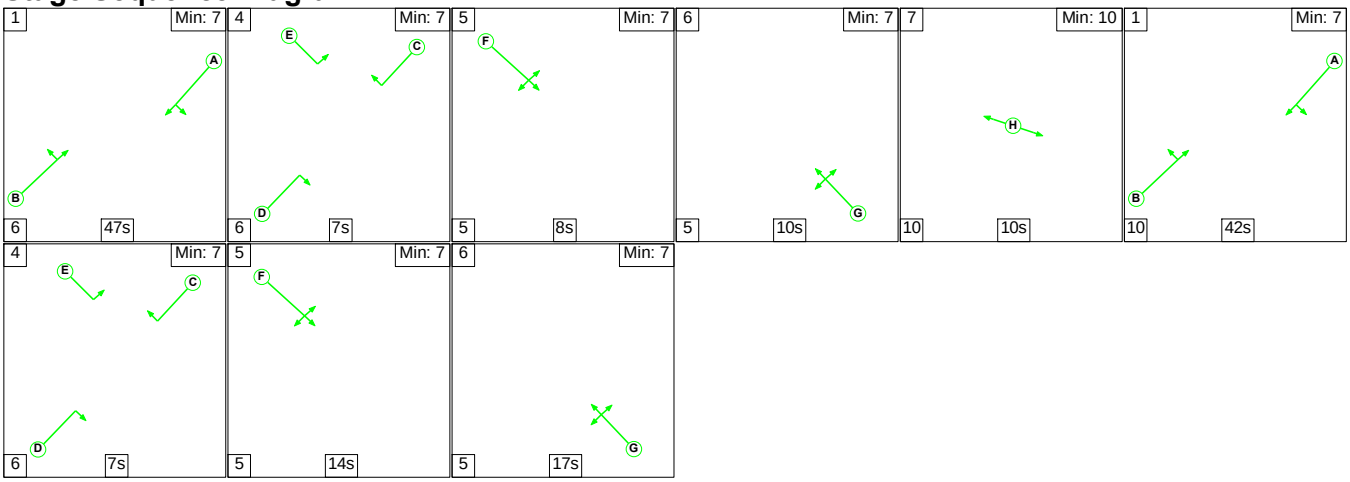
C1 PRC for Signalled Lanes (%): 18.9 Total Delay for Signalled Lanes (pcuHr): 18.94 Cycle Time (s): 220

PRC Over All Lanes (%): 18.9 Total Delay Over All Lanes(pcuHr): 18.94

Full Input Data And Results

Scenario 2: '2015 PM Base peds alternate cycles' (FG2: '2015 PM Base', Plan 2: 'Network Control Plan 2')

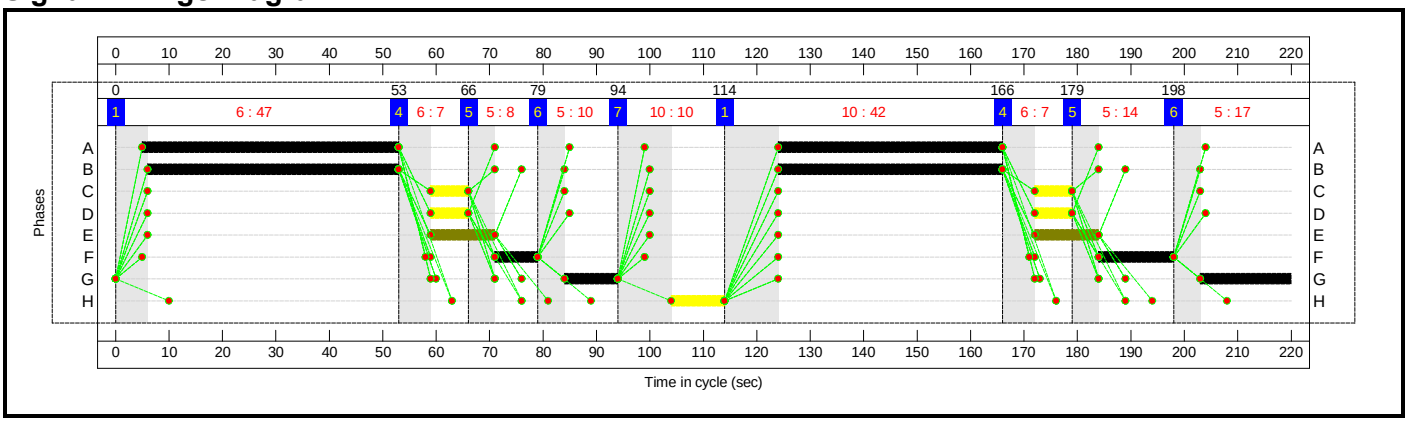
Stage Sequence Diagram



Stage Timings

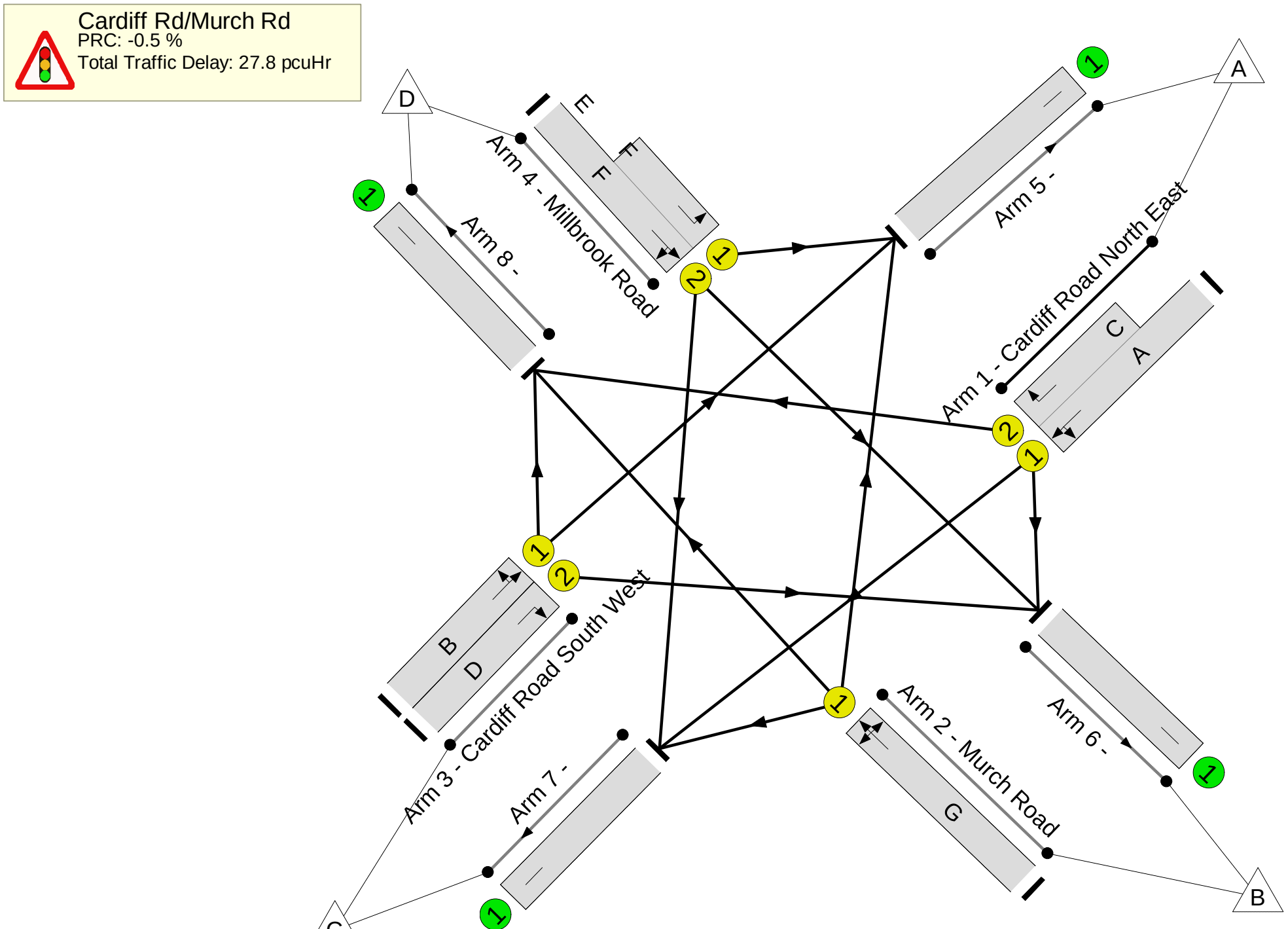
Stage	1	4	5	6	7	1	4	5	6
Duration	47	7	8	10	10	42	7	14	17
Change Point	0	53	66	79	94	114	166	179	198

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram


Cardiff Rd/Murch Rd
PRC: -0.5 %
Total Traffic Delay: 27.8 pcuHr
D
A
B
C
Arm 4 - Millbrook Road
Arm 5 -
Arm 8 -
Arm 1 - Cardiff Road North East
Arm 3 - Cardiff Road South West
Arm 2 - Murch Road
Arm 6 -
Arm 7 -
E
F
C
A
B
D
G
1
2

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Existing Signalised Crossroads	-	-	**N/A**	-	-		-	-	-	-	-	-	**90.4%**
Cardiff Rd/Murch Rd	-	-	**N/A**	-	-		-	-	-	-	-	-	**90.4%**
1/1+1/2	Cardiff Road North East Left Ahead Right	U	N/A	N/A	A C		2	90:14	-	731	1881:1955	761+48	90.4 : 90.4%
2/1	Murch Road Right Left Ahead	U	N/A	N/A	G		2	27	-	214	1835	242	88.5%
3/1	Cardiff Road South West Ahead Left	U	N/A	N/A	B		2	89	-	490	1906	788	62.2%
3/2	Cardiff Road South West Right	U	N/A	N/A	D		2	14	-	29	1702	124	23.4%
4/2+4/1	Millbrook Road Left Ahead Right	U	N/A	N/A	F	E	2	22:46	24	245	1857:1702	186+88	89.5 : 89.5%
5/1		U	N/A	N/A	-		-	-	-	660	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	244	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	677	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	128	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Existing Signalised Crossroads	**-**	**-**	**0**	**0**	**0**	**16.0**	**11.8**	**0.0**	**27.8**	**-**	**-**	**-**	**-**
Cardiff Rd/Murch Rd	**-**	**-**	**0**	**0**	**0**	**16.0**	**11.8**	**0.0**	**27.8**	**-**	**-**	**-**	**-**
1/1+1/2	731	731	-	-	-	6.3	4.3	-	10.5	51.9	22.4	4.3	26.6
2/1	214	214	-	-	-	2.8	3.1	-	6.0	100.4	7.3	3.1	10.4
3/1	490	490	-	-	-	3.5	0.8	-	4.3	31.6	12.8	0.8	13.6
3/2	29	29	-	-	-	0.4	0.2	-	0.5	67.1	0.9	0.2	1.0
4/2+4/1	245	245	-	-	-	3.0	3.4	-	6.4	94.6	5.4	3.4	8.8
5/1	660	660	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	244	244	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	677	677	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	128	128	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

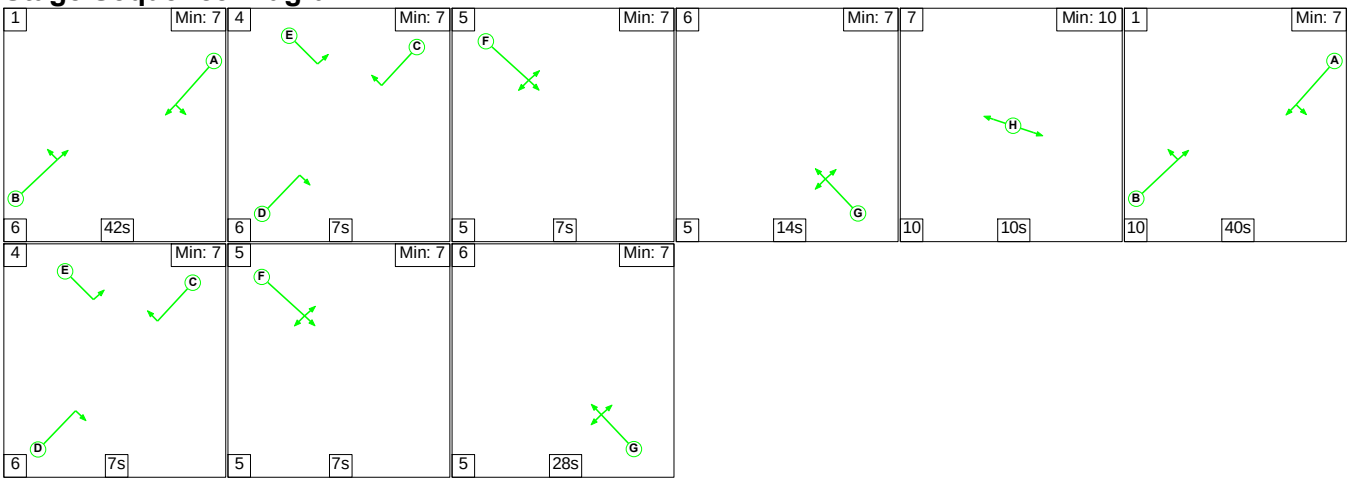
C1 PRC for Signalled Lanes (%): -0.5 Total Delay for Signalled Lanes (pcuHr): 27.79 Cycle Time (s): 220

PRC Over All Lanes (%): -0.5 Total Delay Over All Lanes(pcuHr): 27.79

Full Input Data And Results

Scenario 3: '2020 AM peds alternate cycles' (FG3: '2020 AM', Plan 2: 'Network Control Plan 2')

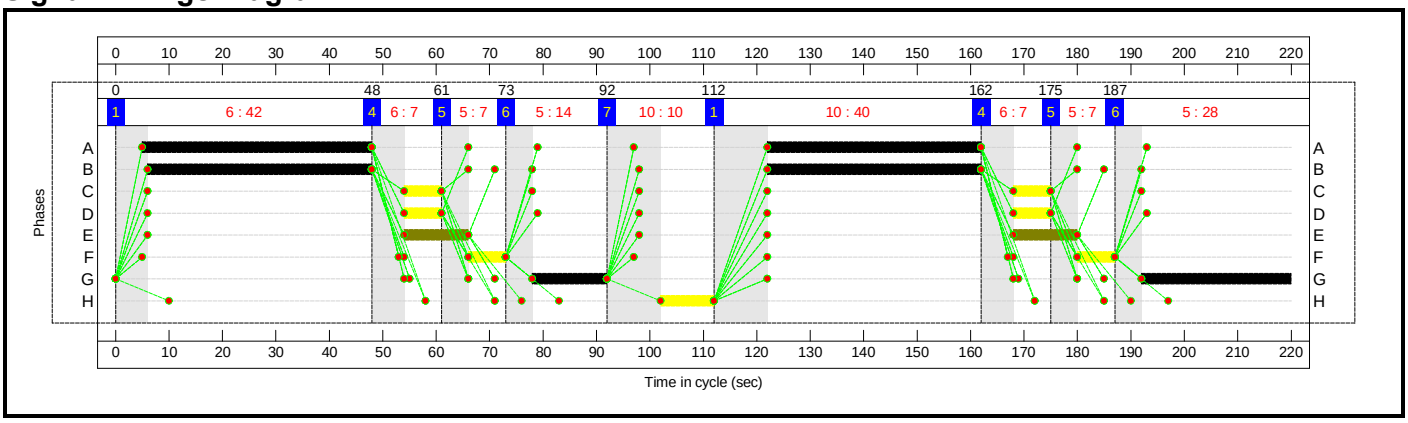
Stage Sequence Diagram



Stage Timings

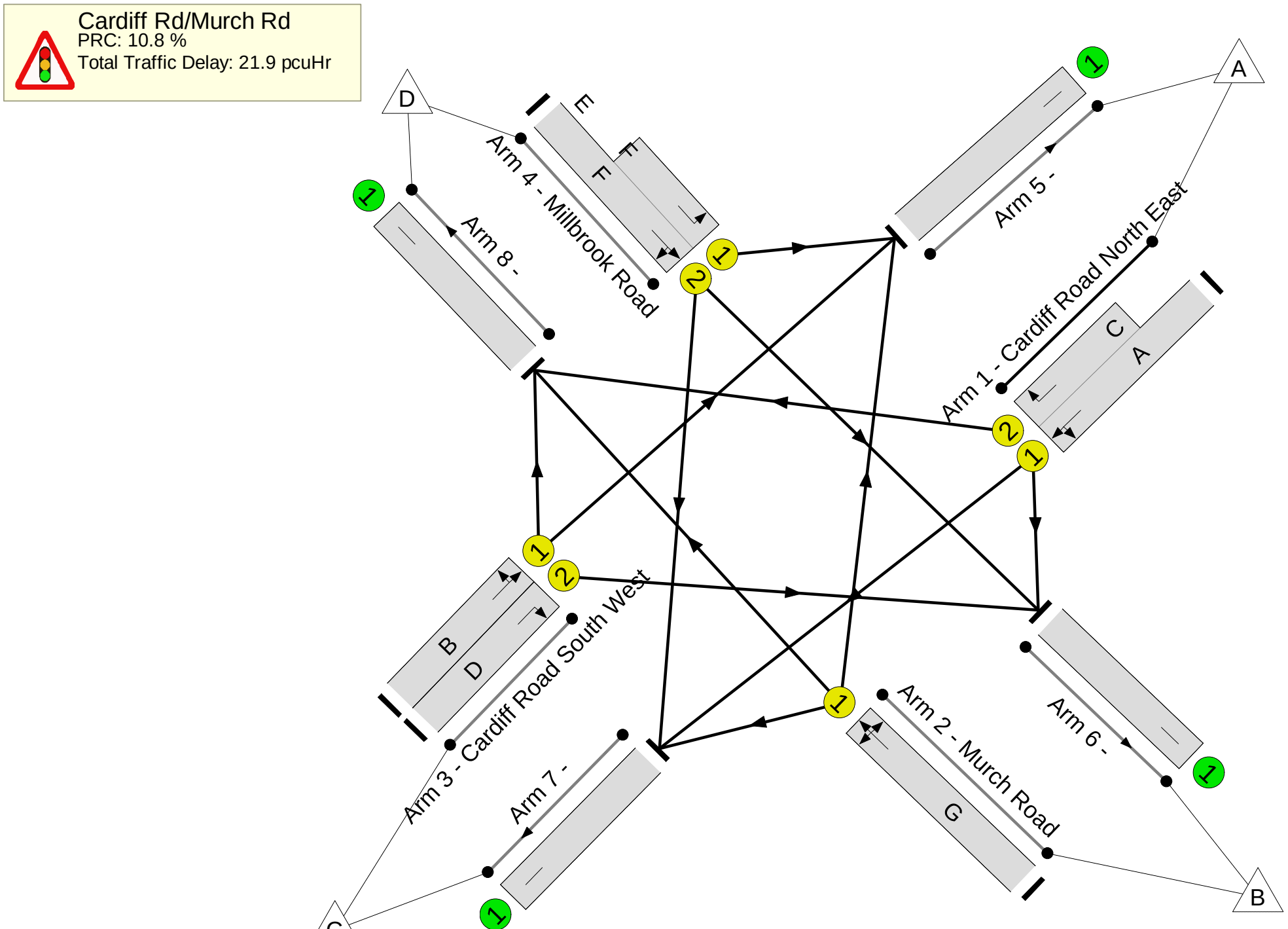
Stage	1	4	5	6	7	1	4	5	6
Duration	42	7	7	14	10	40	7	7	28
Change Point	0	48	61	73	92	112	162	175	187

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram


Cardiff Rd/Murch Rd
PRC: 10.8 %
Total Traffic Delay: 21.9 pcuHr
D
A
B
C
Arm 4 - Millbrook Road
Arm 5 -
Arm 8 -
Arm 1 - Cardiff Road North East
Arm 3 - Cardiff Road South West
Arm 2 - Murch Road
Arm 6 -
Arm 7 -
E
F
C
A
B
D
G
1
2

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Existing Signalised Crossroads	-	-	**N/A**	-	-		-	-	-	-	-	-	**81.2%**
Cardiff Rd/Murch Rd	-	-	**N/A**	-	-		-	-	-	-	-	-	**81.2%**
1/1+1/2	Cardiff Road North East Left Ahead Right	U	N/A	N/A	A C		2	83:14	-	612	1883:1955	696+58	81.2 : 81.2%
2/1	Murch Road Right Left Ahead	U	N/A	N/A	G		2	42	-	295	1817	363	81.2%
3/1	Cardiff Road South West Ahead Left	U	N/A	N/A	B		2	82	-	562	1885	720	78.1%
3/2	Cardiff Road South West Right	U	N/A	N/A	D		2	14	-	45	1702	124	36.4%
4/2+4/1	Millbrook Road Left Ahead Right	U	N/A	N/A	F	E	2	14:38	24	110	1868:1702	136+146	39.0 : 39.0%
5/1		U	N/A	N/A	-		-	-	-	718	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	170	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	570	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	166	Inf	Inf	0.0%

Full Input Data And Results

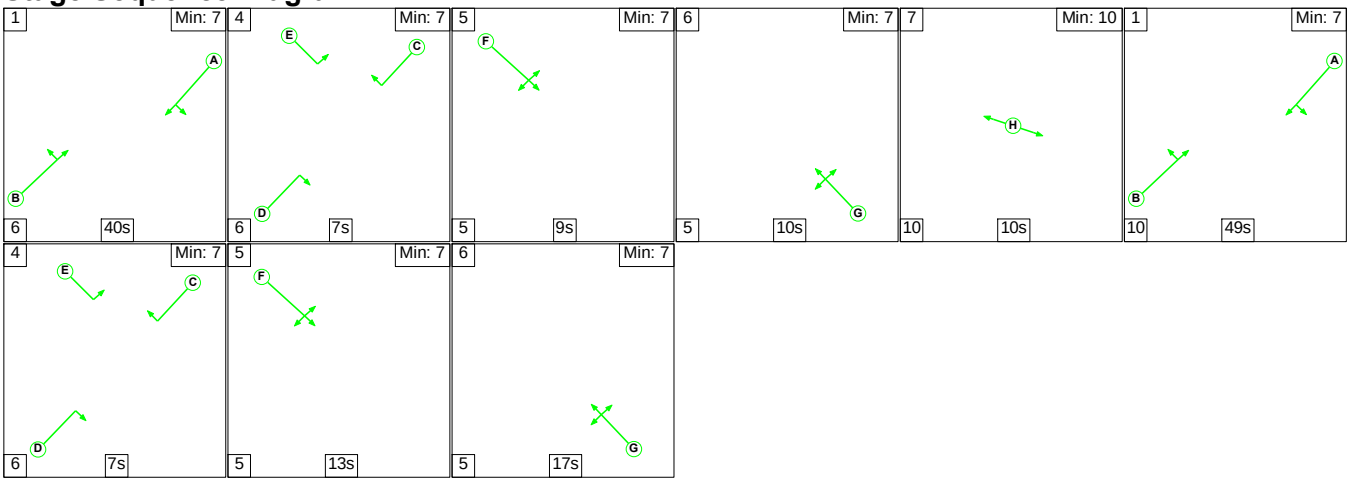
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Existing Signalised Crossroads	**-**	**-**	**0**	**0**	**0**	**15.5**	**6.5**	**0.0**	**21.9**	**-**	**-**	**-**	**-**
Cardiff Rd/Murch Rd	**-**	**-**	**0**	**0**	**0**	**15.5**	**6.5**	**0.0**	**21.9**	**-**	**-**	**-**	**-**
1/1+1/2	612	612	-	-	-	5.3	2.1	-	7.4	43.7	17.4	2.1	19.5
2/1	295	295	-	-	-	3.5	2.0	-	5.5	67.5	9.7	2.0	11.7
3/1	562	562	-	-	-	4.7	1.7	-	6.4	41.3	16.2	1.7	18.0
3/2	45	45	-	-	-	0.6	0.3	-	0.9	71.4	1.4	0.3	1.6
4/2+4/1	110	110	-	-	-	1.3	0.3	-	1.6	53.7	1.6	0.3	1.9
5/1	718	718	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	170	170	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	570	570	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	166	166	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 10.8 Total Delay for Signalled Lanes (pcuHr): 21.95 Cycle Time (s): 220
PRC Over All Lanes (%): 10.8 Total Delay Over All Lanes(pcuHr): 21.95

Full Input Data And Results

Scenario 4: '2020 PM peds alternate cycles' (FG4: '2020 PM', Plan 2: 'Network Control Plan 2')

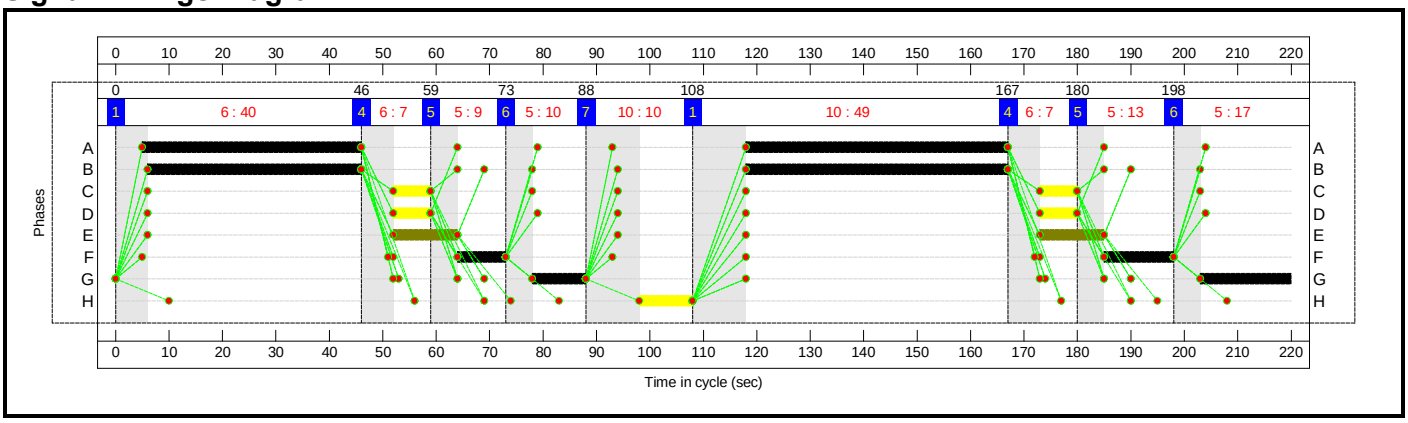
Stage Sequence Diagram



Stage Timings

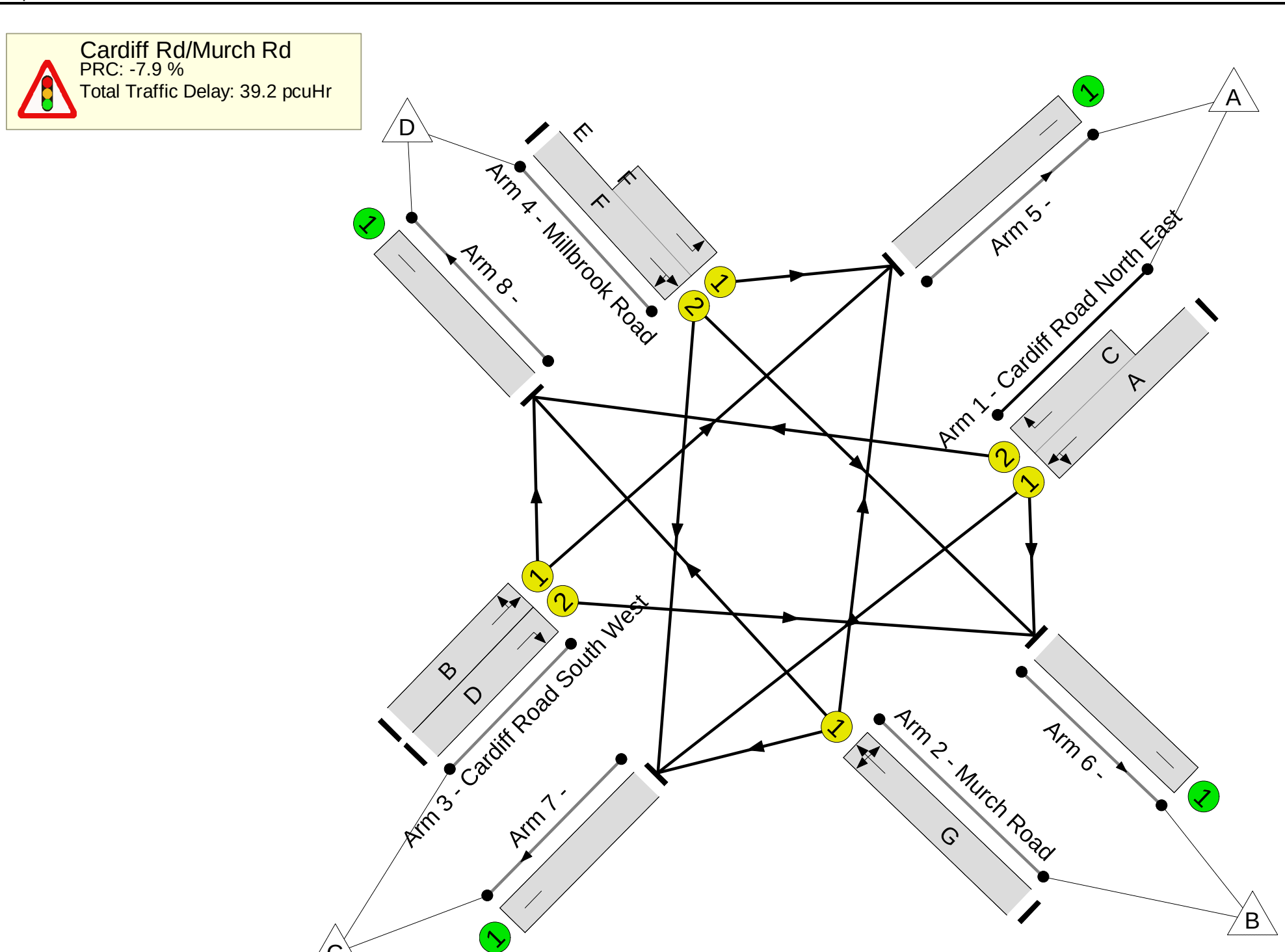
Stage	1	4	5	6	7	1	4	5	6
Duration	40	7	9	10	10	49	7	13	17
Change Point	0	46	59	73	88	108	167	180	198

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram


Cardiff Rd/Murch Rd
PRC: -7.9 %
Total Traffic Delay: 39.2 pcuHr
D
A
B
C
Arm 4 - Millbrook Road
Arm 5 -
Arm 8 -
Arm 1 - Cardiff Road North East
Arm 3 - Cardiff Road South West
Arm 2 - Murch Road
Arm 6 -
Arm 7 -
E
F
C
A
B
D
G
1
2

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Existing Signalised Crossroads	-	-	**N/A**	-	-		-	-	-	-	-	-	**97.1%**
Cardiff Rd/Murch Rd	-	-	**N/A**	-	-		-	-	-	-	-	-	**97.1%**
1/1+1/2	Cardiff Road North East Left Ahead Right	U	N/A	N/A	A C		2	90:14	-	785	1881:1955	761+47	97.1 : 97.1%
2/1	Murch Road Right Left Ahead	U	N/A	N/A	G		2	27	-	230	1835	242	95.1%
3/1	Cardiff Road South West Ahead Left	U	N/A	N/A	B		2	89	-	526	1905	788	66.8%
3/2	Cardiff Road South West Right	U	N/A	N/A	D		2	14	-	31	1702	124	25.0%
4/2+4/1	Millbrook Road Left Ahead Right	U	N/A	N/A	F	E	2	22:46	24	263	1857:1702	186+89	95.8 : 95.8%
5/1		U	N/A	N/A	-		-	-	-	708	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	262	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	727	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	138	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Existing Signalised Crossroads	**-**	**-**	**0**	**0**	**0**	**17.8**	**21.4**	**0.0**	**39.2**	**-**	**-**	**-**	**-**
Cardiff Rd/Murch Rd	**-**	**-**	**0**	**0**	**0**	**17.8**	**21.4**	**0.0**	**39.2**	**-**	**-**	**-**	**-**
1/1+1/2	785	785	-	-	-	7.1	9.3	-	16.4	75.2	25.6	9.3	34.9
2/1	230	230	-	-	-	3.2	5.2	-	8.3	130.3	8.3	5.2	13.5
3/1	526	526	-	-	-	3.9	1.0	-	4.9	33.2	14.3	1.0	15.3
3/2	31	31	-	-	-	0.4	0.2	-	0.6	68.1	1.0	0.2	1.2
4/2+4/1	263	263	-	-	-	3.3	5.7	-	9.0	123.9	6.7	5.7	12.4
5/1	708	708	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	262	262	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	727	727	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	138	138	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

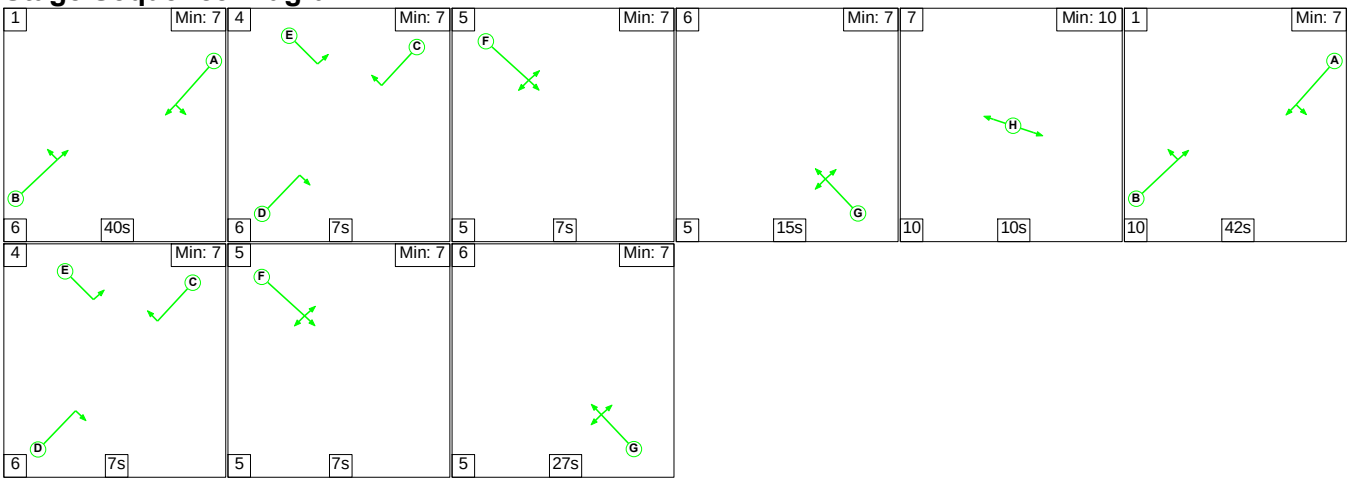
C1 PRC for Signalled Lanes (%): -7.9 Total Delay for Signalled Lanes (pcuHr): 39.21 Cycle Time (s): 220

PRC Over All Lanes (%): -7.9 Total Delay Over All Lanes(pcuHr): 39.21

Full Input Data And Results

Scenario 5: '2020 + Comm AM peds alternate cycles' (FG5: '2020 + Comm AM', Plan 2: 'Network Control Plan 2')

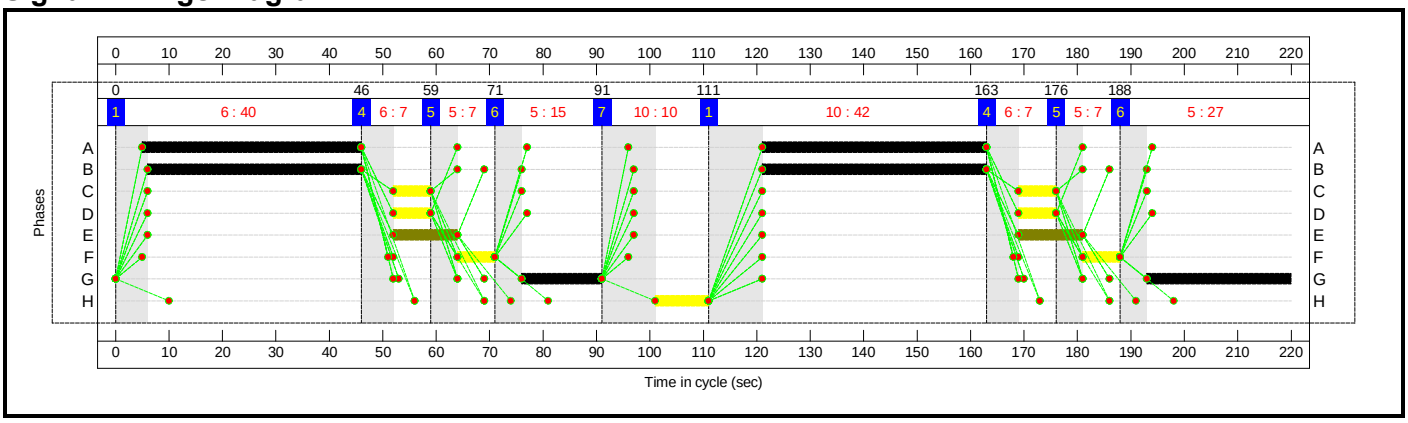
Stage Sequence Diagram



Stage Timings

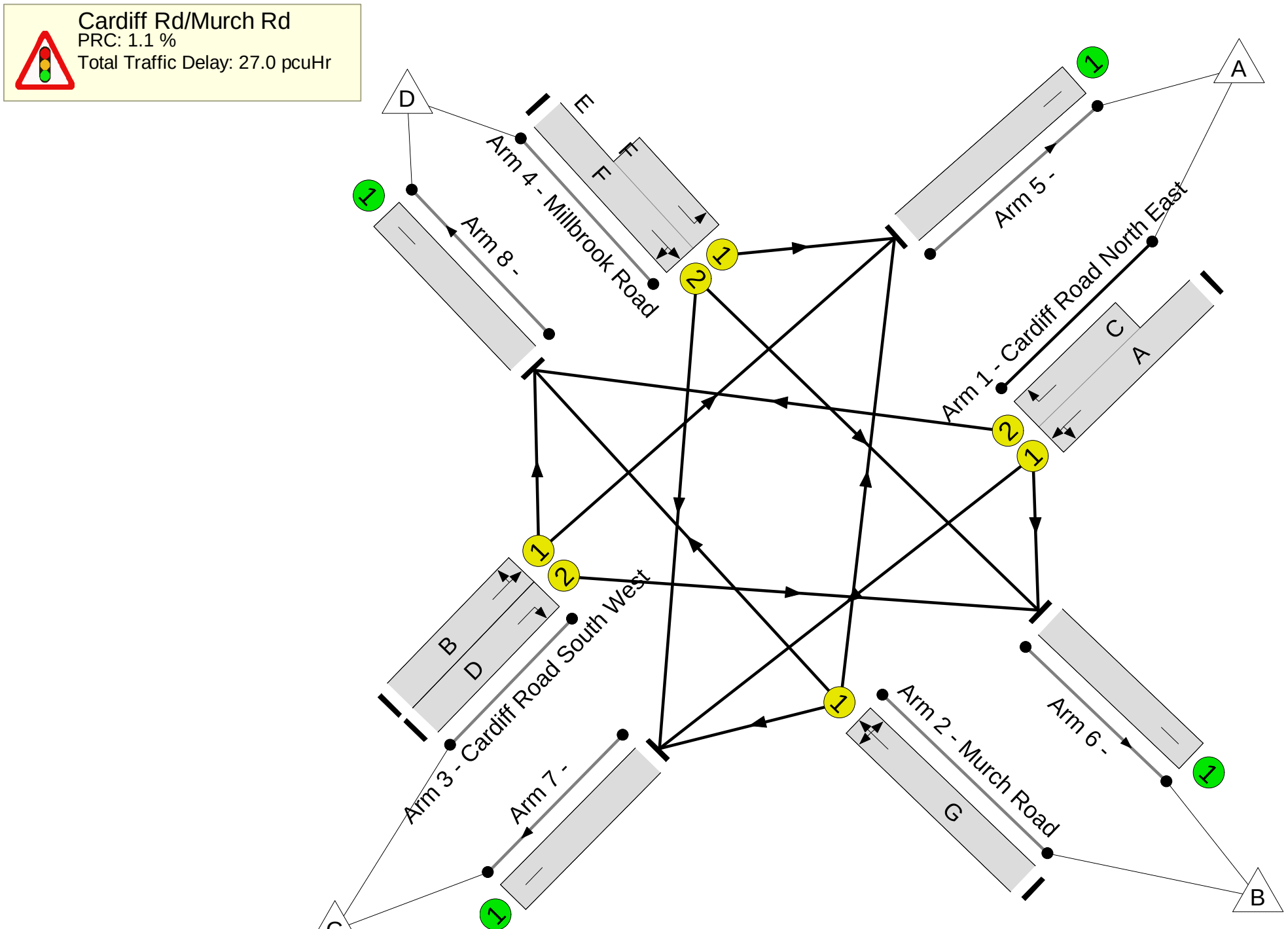
Stage	1	4	5	6	7	1	4	5	6
Duration	40	7	7	15	10	42	7	7	27
Change Point	0	46	59	71	91	111	163	176	188

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram


Cardiff Rd/Murch Rd
PRC: 1.1 %
Total Traffic Delay: 27.0 pcuHr
D
A
B
C
Arm 4 - Millbrook Road
Arm 5 -
Arm 8 -
Arm 1 - Cardiff Road North East
Arm 3 - Cardiff Road South West
Arm 2 - Murch Road
Arm 6 -
Arm 7 -
E
F
C
A
B
D
G
1
2

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Existing Signalised Crossroads	-	-	**N/A**	-	-		-	-	-	-	-	-	**89.0%**
Cardiff Rd/Murch Rd	-	-	**N/A**	-	-		-	-	-	-	-	-	**89.0%**
1/1+1/2	Cardiff Road North East Left Ahead Right	U	N/A	N/A	A C		2	83:14	-	649	1859:1955	676+53	89.0 : 89.0%
2/1	Murch Road Right Left Ahead	U	N/A	N/A	G		2	42	-	317	1811	362	87.5%
3/1	Cardiff Road South West Ahead Left	U	N/A	N/A	B		2	82	-	562	1885	720	78.1%
3/2	Cardiff Road South West Right	U	N/A	N/A	D		2	14	-	88	1702	124	71.1%
4/2+4/1	Millbrook Road Left Ahead Right	U	N/A	N/A	F	E	2	14:38	24	110	1868:1702	136+146	39.0 : 39.0%
5/1		U	N/A	N/A	-		-	-	-	728	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	250	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	582	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	166	Inf	Inf	0.0%

Full Input Data And Results

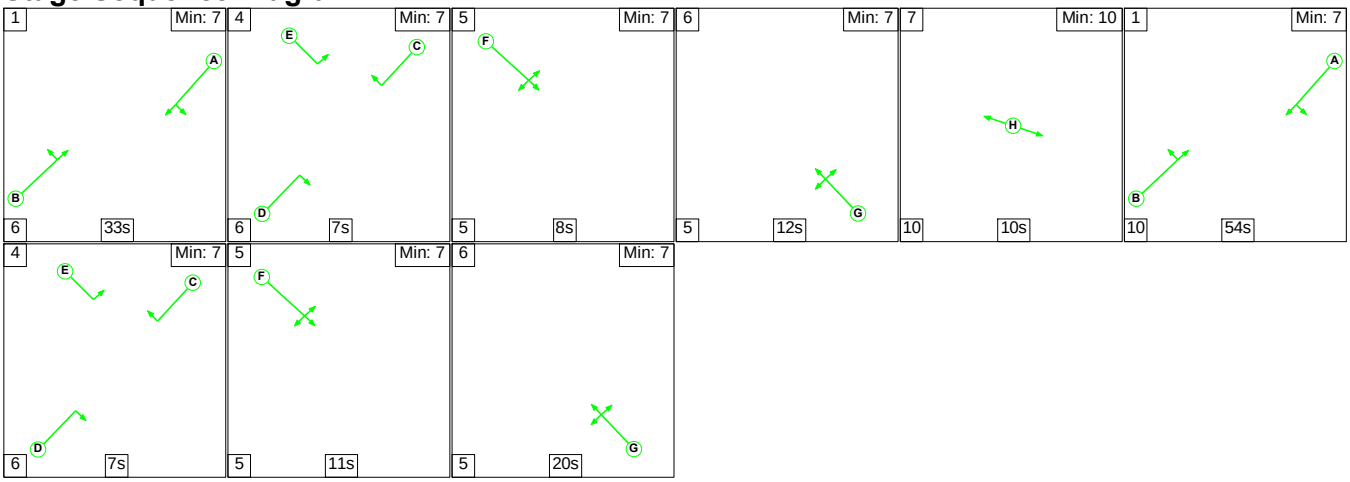
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Existing Signalised Crossroads	**-**	**-**	**0**	**0**	**0**	**17.0**	**10.0**	**0.0**	**27.0**	**-**	**-**	**-**	**-**
Cardiff Rd/Murch Rd	**-**	**-**	**0**	**0**	**0**	**17.0**	**10.0**	**0.0**	**27.0**	**-**	**-**	**-**	**-**
1/1+1/2	649	649	-	-	-	5.9	3.7	-	9.6	53.5	19.7	3.7	23.4
2/1	317	317	-	-	-	3.8	3.1	-	6.9	78.6	10.7	3.1	13.8
3/1	562	562	-	-	-	4.7	1.7	-	6.5	41.3	16.4	1.7	18.1
3/2	88	88	-	-	-	1.2	1.2	-	2.4	97.4	2.8	1.2	3.9
4/2+4/1	110	110	-	-	-	1.3	0.3	-	1.6	53.9	1.6	0.3	2.0
5/1	728	728	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	250	250	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	582	582	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	166	166	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 1.1 Total Delay for Signalled Lanes (pcuHr): 27.04 Cycle Time (s): 220
PRC Over All Lanes (%): 1.1 Total Delay Over All Lanes(pcuHr): 27.04

Full Input Data And Results

Scenario 6: '2020 + Comm PM peds alternate cycles' (FG6: '2020 + Comm PM', Plan 2: 'Network Control Plan 2')

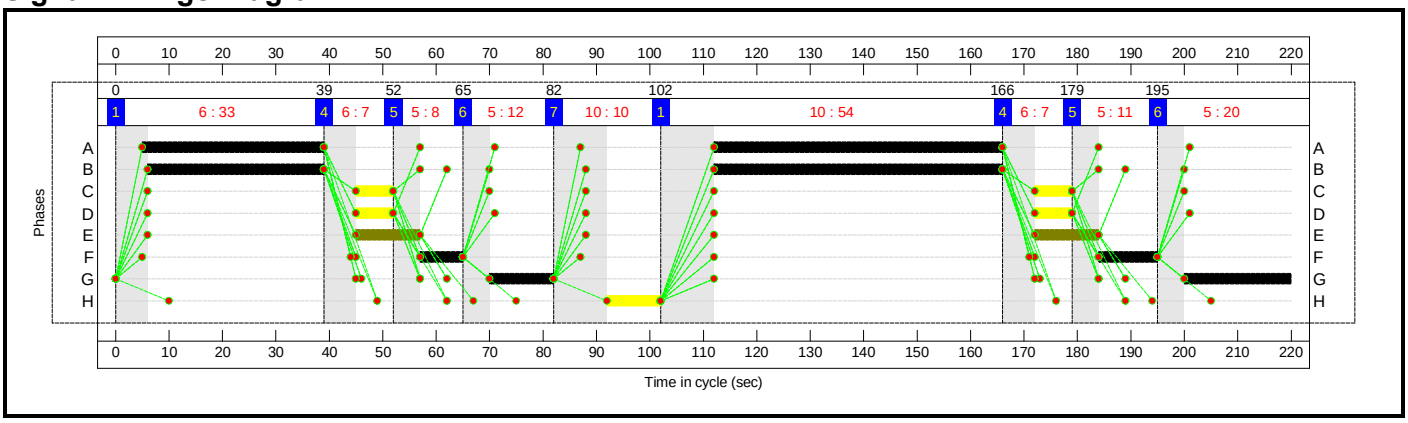
Stage Sequence Diagram



Stage Timings

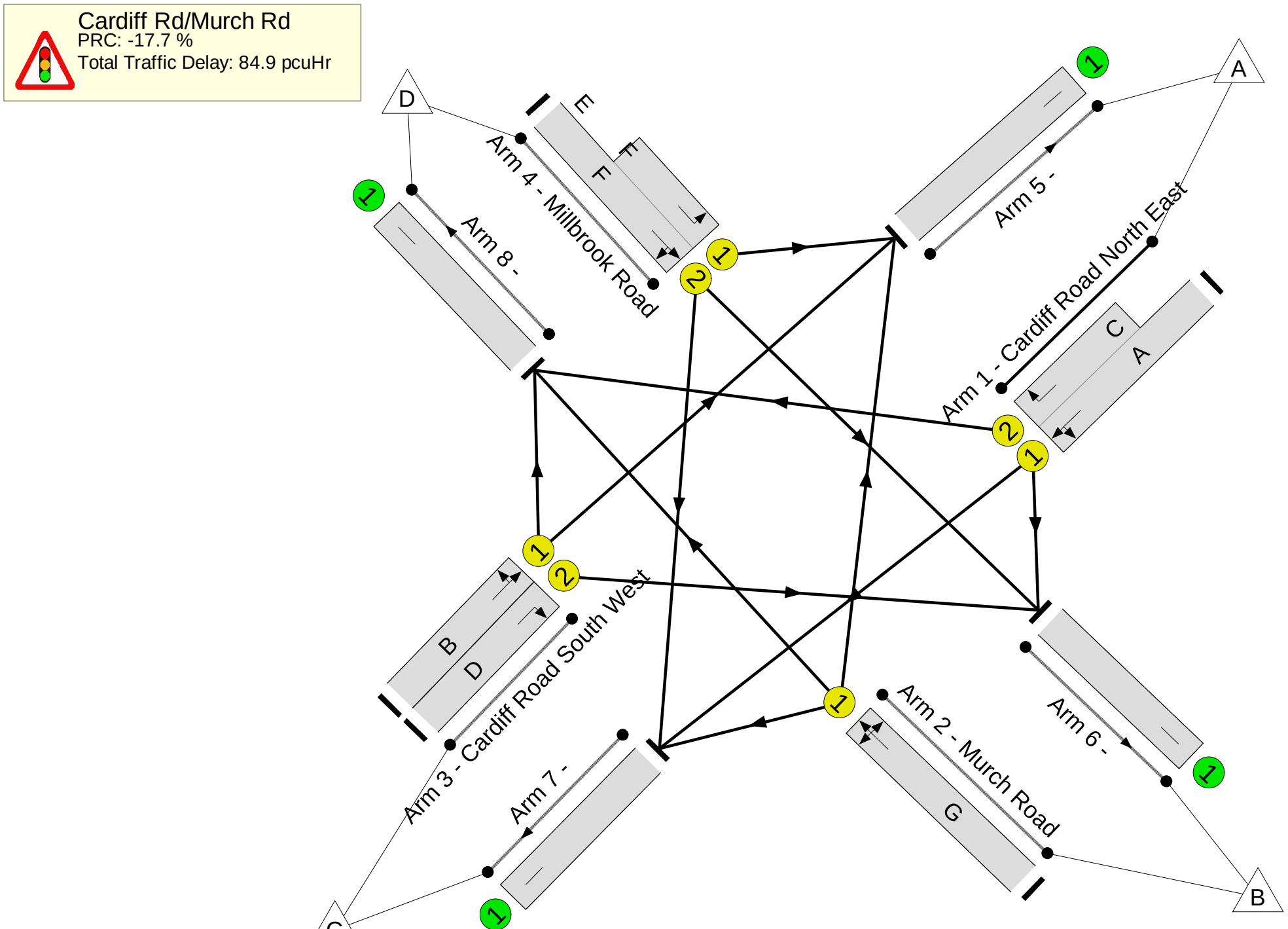
Stage	1	4	5	6	7	1	4	5	6
Duration	33	7	8	12	10	54	7	11	20
Change Point	0	39	52	65	82	102	166	179	195

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram


Cardiff Rd/Murch Rd
PRC: -17.7 %
Total Traffic Delay: 84.9 pcuHr
D
A
B
C
Arm 4 - Millbrook Road
Arm 5 -
Arm 8 -
Arm 1 - Cardiff Road North East
Arm 3 - Cardiff Road South West
Arm 2 - Murch Road
Arm 6 -
Arm 7 -
E
F
C
A
B
D
G
1
2

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Existing Signalised Crossroads	-	-	**N/A**	-	-		-	-	-	-	-	-	**105.9%**
Cardiff Rd/Murch Rd	-	-	**N/A**	-	-		-	-	-	-	-	-	**105.9%**
1/1+1/2	Cardiff Road North East Left Ahead Right	U	N/A	N/A	A C		2	88:14	-	815	1866:1955	726+43	105.9 : 105.9%
2/1	Murch Road Right Left Ahead	U	N/A	N/A	G		2	32	-	294	1813	280	104.9%
3/1	Cardiff Road South West Ahead Left	U	N/A	N/A	B		2	87	-	526	1905	771	68.3%
3/2	Cardiff Road South West Right	U	N/A	N/A	D		2	14	-	66	1702	124	53.3%
4/2+4/1	Millbrook Road Left Ahead Right	U	N/A	N/A	F	E	2	19:43	24	263	1857:1702	169+81	105.4 : 105.4%
5/1		U	N/A	N/A	-		-	-	-	738	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	327	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	761	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	138	Inf	Inf	0.0%

Full Input Data And Results

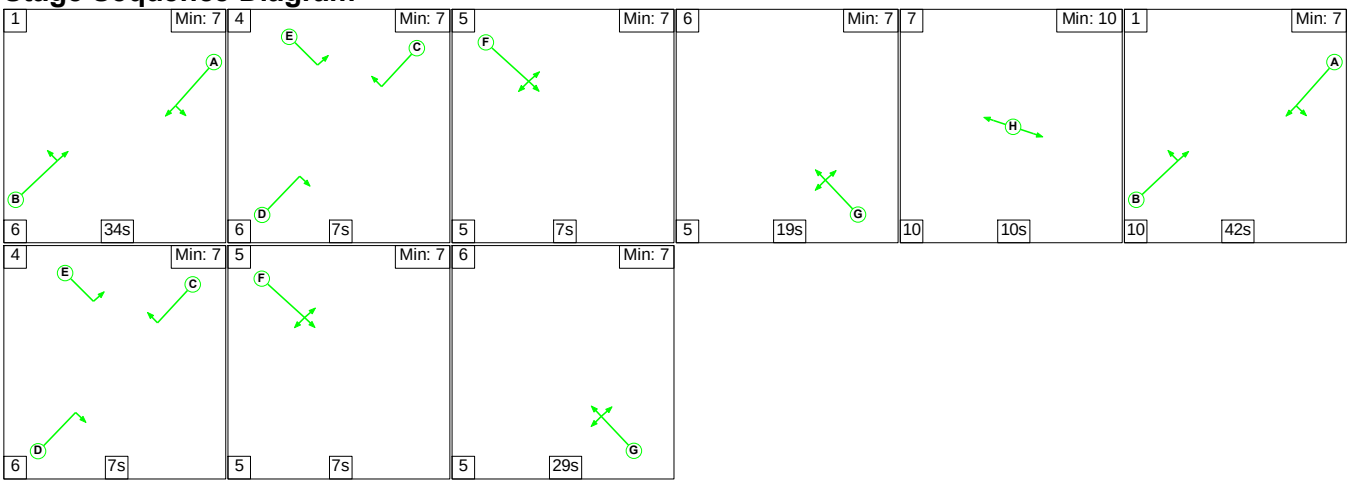
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Existing Signalised Crossroads	**-**	**-**	**0**	**0**	**0**	**28.8**	**56.2**	**0.0**	**84.9**	**-**	**-**	**-**	**-**
Cardiff Rd/Murch Rd	**-**	**-**	**0**	**0**	**0**	**28.8**	**56.2**	**0.0**	**84.9**	**-**	**-**	**-**	**-**
1/1+1/2	815	770	-	-	-	12.8	29.7	-	42.5	187.5	35.3	29.7	65.0
2/1	294	280	-	-	-	5.9	12.7	-	18.6	227.2	12.9	12.7	25.6
3/1	526	526	-	-	-	4.0	1.1	-	5.0	34.5	14.5	1.1	15.5
3/2	66	66	-	-	-	0.9	0.6	-	1.5	81.1	2.3	0.6	2.8
4/2+4/1	263	250	-	-	-	5.2	12.1	-	17.4	238.1	9.1	12.1	21.3
5/1	727	727	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	313	313	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	719	719	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	132	132	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -17.7 Total Delay for Signalled Lanes (pcuHr): 84.93 Cycle Time (s): 220
PRC Over All Lanes (%): -17.7 Total Delay Over All Lanes(pcuHr): 84.93

Full Input Data And Results

Scenario 7: '2020 + Comm + Dev AM peds alternate cycles' (FG7: '2020 + Comm + Dev AM', Plan 2: 'Network Control Plan 2')

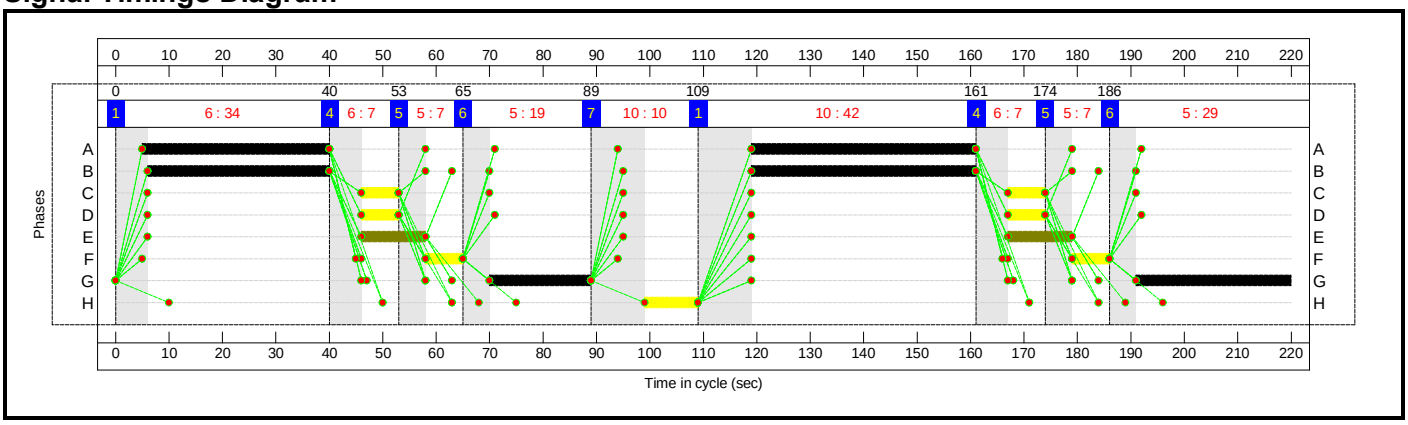
Stage Sequence Diagram



Stage Timings

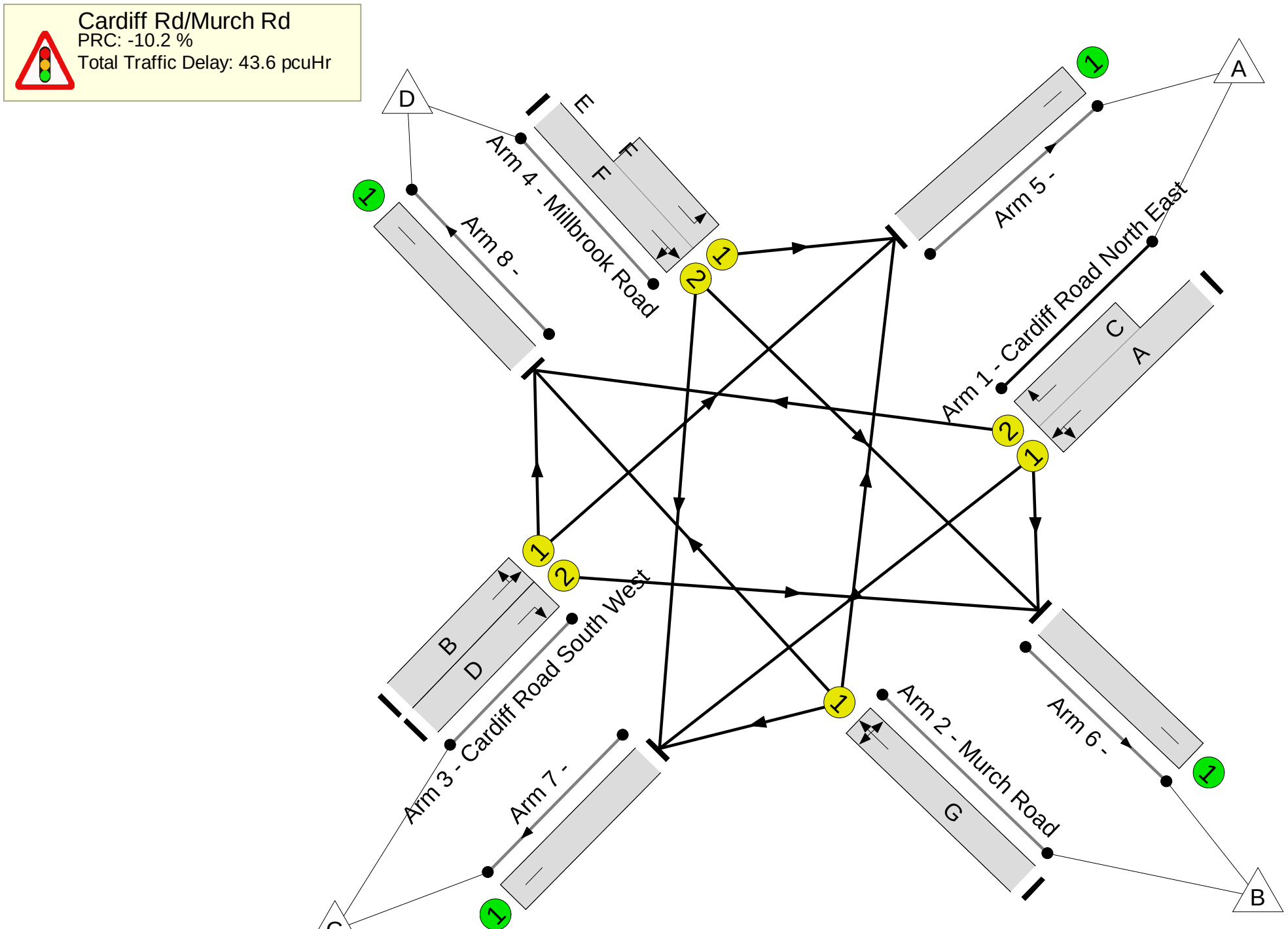
Stage	1	4	5	6	7	1	4	5	6
Duration	34	7	7	19	10	42	7	7	29
Change Point	0	40	53	65	89	109	161	174	186

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram


Cardiff Rd/Murch Rd
PRC: -10.2 %
Total Traffic Delay: 43.6 pcuHr
D
A
B
C
Arm 4 - Millbrook Road
Arm 5 -
Arm 8 -
Arm 1 - Cardiff Road North East
Arm 3 - Cardiff Road South West
Arm 2 - Murch Road
Arm 6 -
Arm 7 -
E
F
C
A
B
D
G
1
2

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Existing Signalised Crossroads	-	-	**N/A**	-	-		-	-	-	-	-	-	**99.2%**
Cardiff Rd/Murch Rd	-	-	**N/A**	-	-		-	-	-	-	-	-	**99.2%**
1/1+1/2	Cardiff Road North East Left Ahead Right	U	N/A	N/A	A C		2	77:14	-	665	1850:1955	628+48	98.4 : 98.4%
2/1	Murch Road Right Left Ahead	U	N/A	N/A	G		2	48	-	409	1815	412	99.2%
3/1	Cardiff Road South West Ahead Left	U	N/A	N/A	B		2	76	-	562	1885	668	84.1%
3/2	Cardiff Road South West Right	U	N/A	N/A	D		2	14	-	92	1702	124	74.3%
4/2+4/1	Millbrook Road Left Ahead Right	U	N/A	N/A	F	E	2	14:38	24	119	1875:1702	136+125	45.5 : 45.5%
5/1		U	N/A	N/A	-		-	-	-	779	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	279	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	594	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	195	Inf	Inf	0.0%

Full Input Data And Results

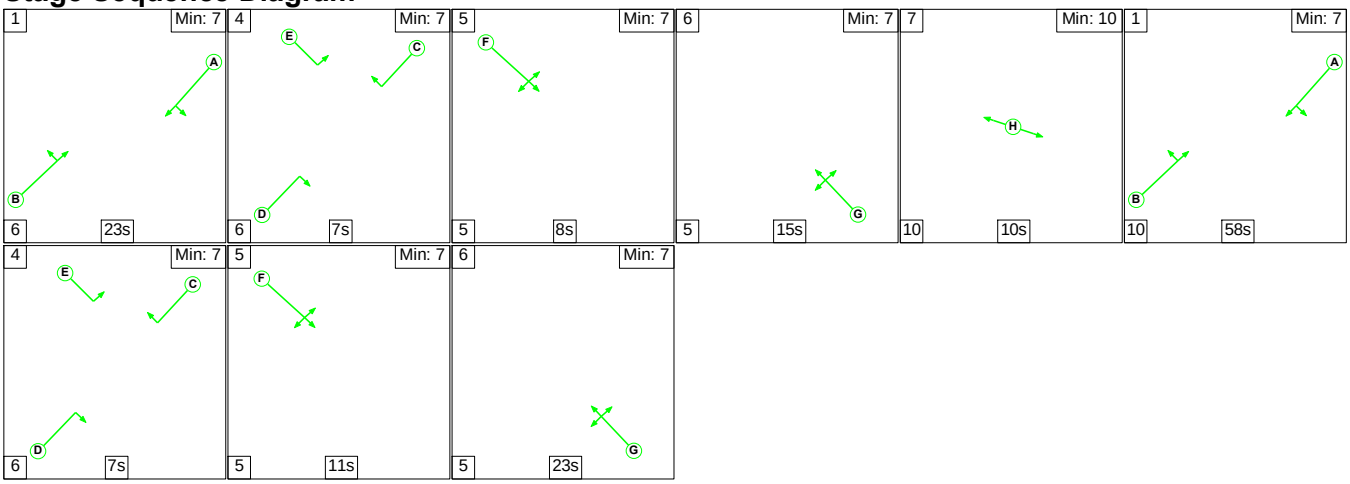
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Existing Signalised Crossroads	**-**	**-**	**0**	**0**	**0**	**19.6**	**24.1**	**0.0**	**43.6**	**-**	**-**	**-**	**-**
Cardiff Rd/Murch Rd	**-**	**-**	**0**	**0**	**0**	**19.6**	**24.1**	**0.0**	**43.6**	**-**	**-**	**-**	**-**
1/1+1/2	665	665	-	-	-	6.7	10.5	-	17.2	93.1	21.7	10.5	32.2
2/1	409	409	-	-	-	5.0	9.3	-	14.3	125.7	14.8	9.3	24.1
3/1	562	562	-	-	-	5.1	2.5	-	7.7	49.1	17.3	2.5	19.9
3/2	92	92	-	-	-	1.3	1.3	-	2.6	102.8	3.0	1.3	4.4
4/2+4/1	119	119	-	-	-	1.5	0.4	-	1.9	56.9	2.0	0.4	2.4
5/1	779	779	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	279	279	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	594	594	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	195	195	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -10.2 Total Delay for Signalled Lanes (pcuHr): 43.65 Cycle Time (s): 220
PRC Over All Lanes (%): -10.2 Total Delay Over All Lanes(pcuHr): 43.65

Full Input Data And Results

Scenario 8: '2020 + Comm + Dev PM peds alternate cycles' (FG8: '2020 + Comm + Dev PM', Plan 2: 'Network Control Plan 2')

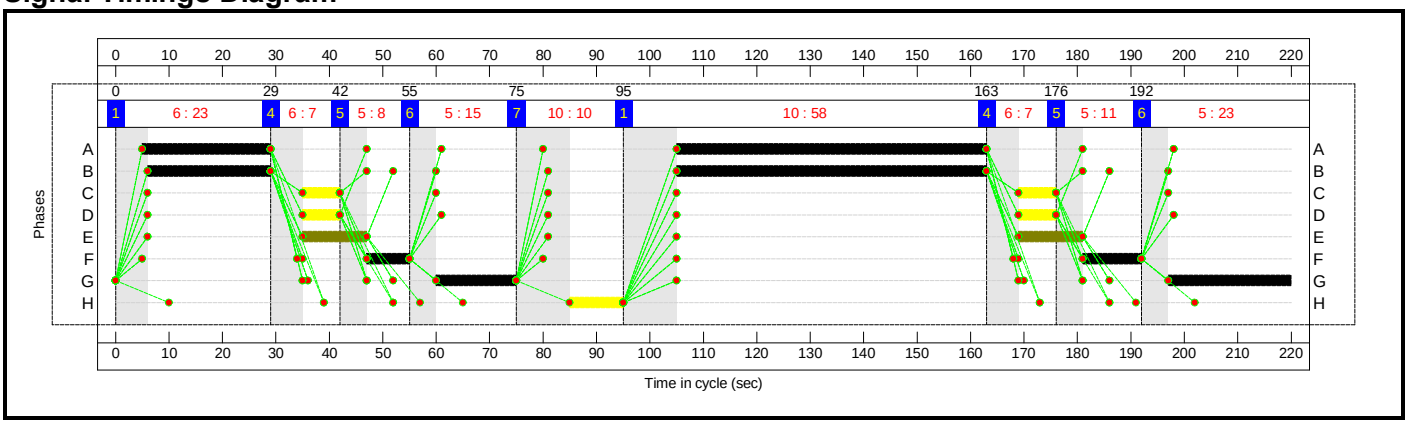
Stage Sequence Diagram



Stage Timings

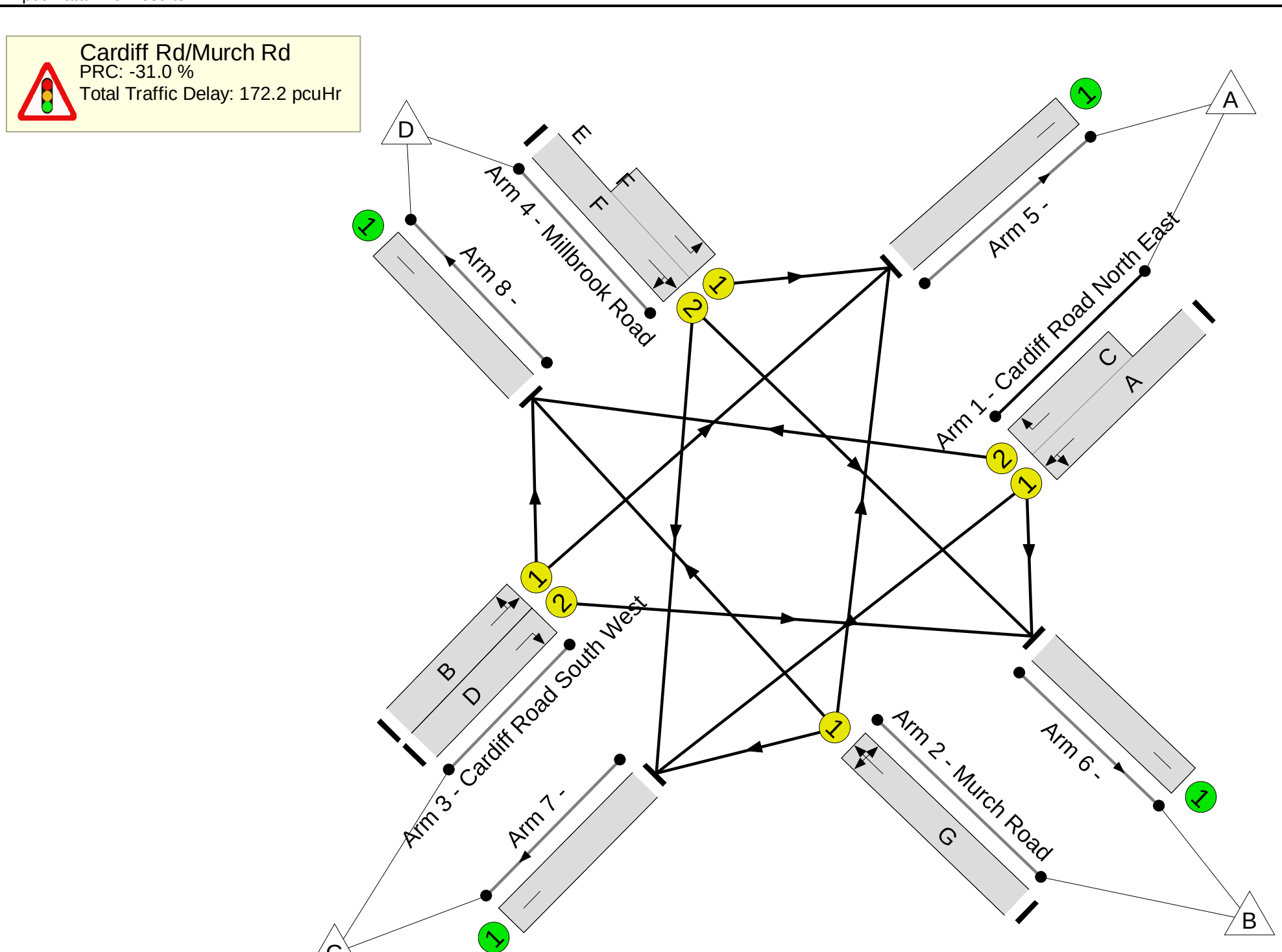
Stage	1	4	5	6	7	1	4	5	6
Duration	23	7	8	15	10	58	7	11	23
Change Point	0	29	42	55	75	95	163	176	192

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram


Cardiff Rd/Murch Rd
PRC: -31.0 %
Total Traffic Delay: 172.2 pcuHr
D
A
B
C
Arm 4 - Millbrook Road
Arm 5 -
Arm 8 -
Arm 1 - Cardiff Road North East
Arm 3 - Cardiff Road South West
Arm 2 - Murch Road
Arm 6 -
Arm 7 -
E
F
C
A
B
D
G
1
2

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Existing Signalised Crossroads	-	-	**N/A**	-	-		-	-	-	-	-	-	**117.9%**
Cardiff Rd/Murch Rd	-	-	**N/A**	-	-		-	-	-	-	-	-	**117.9%**
1/1+1/2	Cardiff Road North East Left Ahead Right	U	N/A	N/A	A C		2	82:14	-	843	1854:1955	676+39	117.9 : 117.9%
2/1	Murch Road Right Left Ahead	U	N/A	N/A	G		2	38	-	388	1816	330	117.5%
3/1	Cardiff Road South West Ahead Left	U	N/A	N/A	B		2	81	-	526	1905	719	73.2%
3/2	Cardiff Road South West Right	U	N/A	N/A	D		2	14	-	73	1702	124	59.0%
4/2+4/1	Millbrook Road Left Ahead Right	U	N/A	N/A	F	E	2	19:43	24	279	1862:1702	169+74	114.5 : 114.5%
5/1		U	N/A	N/A	-		-	-	-	790	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	378	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	774	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	167	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Existing Signalised Crossroads	**-**	**-**	**0**	**0**	**0**	**49.9**	**122.2**	**0.0**	**172.2**	**-**	**-**	**-**	**-**
Cardiff Rd/Murch Rd	**-**	**-**	**0**	**0**	**0**	**49.9**	**122.2**	**0.0**	**172.2**	**-**	**-**	**-**	**-**
1/1+1/2	843	715	-	-	-	23.5	67.3	-	90.7	387.4	48.1	67.3	115.4
2/1	388	330	-	-	-	12.6	31.9	-	44.6	413.4	22.4	31.9	54.3
3/1	526	526	-	-	-	4.3	1.3	-	5.7	38.9	15.0	1.3	16.4
3/2	73	73	-	-	-	1.1	0.7	-	1.8	86.7	2.7	0.7	3.4
4/2+4/1	279	244	-	-	-	8.5	21.0	-	29.5	380.1	13.1	21.0	34.1
5/1	751	751	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	335	335	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	658	658	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	143	143	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -31.0 Total Delay for Signalled Lanes (pcuHr): 172.17 Cycle Time (s): 220
PRC Over All Lanes (%): -31.0 Total Delay Over All Lanes(pcuHr): 172.17