





South Shields Transport Interchange and Retail/Office Development

TRANSPORT ASSESSMENT

Report

South Shields Transport Interchange and Retail/Office Development

TRANSPORT ASSESSMENT

Report

JMP Consultants Ltd
Milburn House
Dean Street
Newcastle Upon Tyne
NE1 1LE
T 0191 260 0135 F 0191 206 4001 E newcastle@jmp.co.uk

www.jmp.co.uk forwardthinking@jmp.co.uk facebook.com/jmp.consultants twitter.com/#!/_jmp linkedin.com/company/jmp consulting

b No.	Report No.	Issue No.	Prepared	Verified	Approved	Status	Date
EA1239	1	1	JQ	JQ	SP	Final	30/06/201
ontents Amend	lments Record						
sue No.	Revision des	scription			Approved	Status	Date

Contents

1	INTRODUCTION	1
	Background	1
	Structure of Report	1
	Policy Review	2
2	SOUTH SHIELDS MASTERPLAN OVERVIEW	5
3	EXISTING SITE CONDITIONS	7
	Site Location	7
	Highway Network	7
	Collision Analysis	9
	Sustainable Transport Network	11
4	DEVELOPMENT PROPOSAL	18
	Transport Interchange	18
	Retail & Office Development	23
	Public realm improvements	23
	Highway Improvements	23
5	TRIP GENERATION & DISTRIBUTION	25
	Traffic Surveys and Base Network Flows	25
	Trip Generation	27
	Development Trip Distribution	33
6	IMPACT ASSESSMENT – INTERCHANGE APPLICATION	35
	A194/Crossgate Roundabout	35
	Station Road/Coronation Street Roundabout	36
	A194/A1018 Town Hall Signals	37

7	PLANNED DEVELOPMENT – THE PROPOSED MASTERPLAN	40
8	IMPACT ASSESSMENT – MASTERPLAN APPLICATION	45
	Highway Improvements	45
	A194/Crossgate Roundabout	46
	Station Road/Coronation Street Roundabout	47
	A194/A1018 Town Hall Signals	49
	A194/A1018 Signals with Garden Lane and Foodstore Access	51
9	CONCLUSION	53
Tabl	es and Figures	
Figure 2	2.1 Illustrative Masterplan	5
Figure 3	3.1 Site Location in context of the town centre	7
Figure 3	3.2 Collision Locations and Severity – Town Centre	9
Table 3.	.1 Collisions by Year and Severity – Town Centre Area	9
Table 3.	.2 Collisions by Year and Severity – Vicinity of the Development	10
Table 3.	.3 Public Town Centre Car Parks	11
Table 3.	.4 Bus services in the town centre	12
Figure 3	3.3 Existing bus stop locations in vicinity of the development	13
Figure 3	3.4 Map showing the Tyne and Wear Metro Network	14
Table 3.	.5 Frequency of Metro services from South Shields Station	14
Table 3.	.6 Examples of approximate journey times from the South Shields Station	14
Table 3.	7 Summary timetable for ferry crossings	15
Figure 3	3.5 Existing Cycle Network	16
Figure 3	3.6 Existing taxi ranks within South Shields town centre	17
Figure 4	I.1 Proposed Development	19
Figure 4	I.2 Proposed Bus Routing	20
Table 4.	.1 Difference in travel distance by route	21
Figure 5	5.1 Automatic Traffic Counter Locations	25
Table 5.	1 Comparison of Weekday Flows	26
Table 5.	.2 Comparison of Weekday Peak Flows with Friday and Saturday Peaks	26
Table 5.	.3 – Vehicle Trips – Interchange	27
Table 5.	.4 Multi-Modal Trip Rates	28

Figure 5.2	Survey Locations	28
Table 5.5	Mode Share for Retail Trips to the Town Centre	29
Table 5.6	Vehicle Trips – Retail Element	29
Table 5.7	Multi-Modal Trip Rates	29
Table 5.8	Journey to Work Census Data for Beacon and Bents Ward	30
Table 5.9	Vehicle Trips – Office Element.	30
Table 5.10) Vehicle Trips Following Trip Linking – Retail Element	31
Table 5.11	1 Vehicle Trips – Netting Off Existing Uses	32
Table 5.12	Vehicle Trips Following Trip Linking – Existing Uses	32
Table 5.13	3 Vehicle trips following Netting Off	32
Table 5.14	Distribution of Existing Arrivals and Departures to the Town Centre – Wider Network	33
Table 5.15	5 Distribution of Vehicle Trips Retail/Office Element – Wider Network	33
Table 5.16	6 Distribution of Vehicle Trips Retail/Office Element – Local Network	34
Table 6.1	A194/Crossgate Roundabout – Summary of Junction Performance - Base	35
Table 6.2	A194/Crossgate Roundabout – Summary of Junction Performance – Base + Interchange	36
Table 6.3	Station Road/Coronation Street Roundabout – Summary of Junction Performance - Base	36
Table 6.4	Station Road/Coronation Street Roundabout – Summary of Junction Performance – Base + Intercha	nge37
Table 6.5	A194/A1018 Town Hall Signals Existing Layout – Summary of Junction Performance – Base	38
Table 6.6	A194/A1018 Town Hall Signals Proposed Layout – Summary of Junction Performance	38
Table 7.1	Multi-Modal Trip Rates & Resultant Person Trips	41
Table 7.2	Town Centre Masterplan Vehicle Trips	41
Table 7.3	Vehicle Trips Following Trip Linking	42
Table 7.4	Vehicle Trips – Netting Off Existing Uses	42
Table 7.5	Vehicle Trips Following Trip Linking – Existing Uses	43
Table 7.6	Town Centre Masterplan Vehicle Trips	43
Table 7.7	Distribution of Vehicle Trips	44
Table 8.1	A194/Crossgate Roundabout – Summary of Junction Performance - Base	46
Table 8.2	A194/Crossgate Roundabout – Summary of Junction Performance – Base + Interchange + Masterplane	an47
Table 8.3	Station Road/Coronation Street Roundabout – Summary of Junction Performance - Base	47
Table 8.4	Station Road/Coronation Street Roundabout – Summary of Junction Performance – Base + Intercha + Masterplan	•
Table 8.5	Station Road/Coronation Street Partial Signalised Roundabout – Summary of Junction Performance Base + Interchange + Masterplan + Mitigation	
Table 8.6	A194/A1018 Town Hall Signals Existing Layout – Summary of Junction Performance – Base	49
Table 8.7	A194/A1018 Town Hall Signals Existing Layout – Summary of Junction Performance – Base + Interchange + Masterplan	50

Appendices

Appendix A Collision Data

Appendix B Proposed Scheme Drawings

Appendix C TRIcs Output

Appendix D Traffic Flow Diagrams

Appendix E Modelling Output

1 Introduction

BACKGROUND

- 1.1 JMP have been appointed by MUSE Developments, Nexus and South Tyneside Council to carry out a Transport Assessment and accompanying Travel Plan for the proposed development of a bus and metro Transport Interchange (hereafter referred to as the Interchange) in South Shields town centre, South Tyneside. The Interchange is an integral part of the wider regeneration of the town centre as part of the South Shields 365 Vision.
- 1.2 The development consists of:
 - A new bus and metro interchange incorporating a travel shop, small retail outlet and staff/customer amenities;
 - 293m² of retail development;
 - 620m2 of office development;
 - A pickup/drop off area for short term parking;
 - A loading bay
 - Taxi rank; and
 - Public realm improvements.
- 1.3 STC has embarked on an ambitious initiative intent on the regeneration and revitalisation of South Shields town centre referred to as the South Shields 365 town centre vision. This sets out a sustainable economic vision for South Shields which will help create new opportunities for residents, businesses and visitors. This will include the creation of an expanded retail and leisure offer which ensures that a greater amount of spend is retained in the borough.
- 1.4 Fundamental to the town centre is the provision of a range of other attractions and experiences which add value and create a unique offer to encourage repeat trips. This will aid STC's ambition to create a vibrant town centre which will be a place of all year round cultural, leisure and retail activity for residents, businesses and visitors.
- 1.5 Taking this bold vision forward is a major step in securing a sustainable future for South Shields. It sets out major interventions which will transform the town and provide lasting improvements to the way the town functions from the shopping and leisure offer to the way people travel to, from and around the town centre, making it easy for all visitors to enjoy the Foreshore and Riverside as well.
- 1.6 This element forms the second stage of the town centre works creating an important transport hub that gives a great first impression for arrivals to South Shields town centre.
- 1.7 The first phase of works, 'The Word' creates a new community hub in the heart of the town centre, was granted planning permission in October 2014.

STRUCTURE OF REPORT

- 1.8 The assessment will undertake the following stages:
 - Existing transport conditions;
 - Collision analysis;
 - Trip Generation & distribution; and
 - Impact assessment.

POLICY REVIEW

1.9 The proposals have been developed in accordance with current policy at national and local level.

National Policy

National Planning Policy Framework (NPPF)

- 1.10 The final version of the NPPF was published on 27 March 2012. It came into effect immediately, superseding all other national planning policy (eg. PPGs, PPSs) (except on waste).
- 1.11 The document sets out the Government's economic, environmental and social planning policies for England and its expectation for their application. It is meant as high level guidance for local councils to use when defining their local and neighbourhood plans. This approach allows the planning system to be tailored to reflect the needs and priorities of individual communities.
- 1.12 The essence of the document is to support sustainable development, defined as 'meeting the needs of the present without compromising the ability of future generations to meet their own needs'.
- 1.13 The NPPF defines the delivery of sustainable development through three roles, as given below, and notes that to achieve sustainable development, these roles should be sought jointly and simultaneously through the planning system:
 - Planning for prosperity (an economic role);
 - Planning for people (a social role); and
 - Planning for places (an environmental role).
- 1.14 At the heart of the NPPF is a presumption in favour of sustainable development which 'should be seen as a golden thread running through both plan making and decision taking' (Paragraph 14). In Paragraph 15, it goes on to say that 'Policies in Local Plans should follow the approach of the presumption in favour of sustainable development so that it is clear that development which is sustainable can be approved without delay'.
- 1.15 NPPF recognises that transport policies have an important role to play in wider sustainability and health objectives as well as their direct influence on development. It seeks to ensure that the transport system is balanced in favour of sustainable transport modes, giving people a real choice about how they travel.
- 1.16 Paragraph 32 states that developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment. It goes on to state that plans and decisions should take account of whether:
 - ✓ The opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure;
 - 3 Safe and sustainable access to the site can be achieved for all people; and
 - Improvements can be undertaken within the transport networks that cost-effectively limit the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe'.

The Future of Transport White Paper

1.17 The current approach to the provision of transportation infrastructure was introduced by the Department for Transport (DfT) in the 2004 White Paper 'The Future of Transport'. An underlying objective of the strategy was to deal with the pressures of increasing demand for travel by striking the right balance between environmental, economic and social objectives, now and into the future. This placed greater emphasis on managing the growing demand for travel and recognised that simply providing ever more capacity on the existing road network is not the answer in the long term.

- Increasing emphasis should be placed on encouraging the provision and use of public transport, particularly buses, and the greater introduction of Travel Plan initiatives.
- 1.18 The development proposals take on board the key tenets of the White Paper; aiming to provide a land use that is well integrated with the surrounding areas and easily accessible by a range of modes of travel, with particular emphasis on encouraging the use of non-car modes of transport.

Local Planning Policy

Local Planning Policy (LEPs)

- 1.19 Upon formation, the Coalition Government moved rapidly to remove the regional tier of government in England, with the revocation of Regional Spatial Strategies.
- 1.20 The policy focus has shifted to the promotion of planning at a local neighbourhood or community scale, at a level to be influenced by local people. This move towards localism serves to strengthen the role of directly elected Local Authorities in determining their own priorities and strategies, and encourages a much stronger partnership with local businesses and local people in delivering the growth and regeneration of their own communities. Consequently, as part of this move towards more responsible community led governance Local Authorities were invited to come together to submit proposals with business leaders to form LEPs in their area. The North East LEP consists of Northumberland, North Tyneside, South Tyneside, Sunderland, Newcastle, Gateshead and Durham Councils.

South Shields 365 Town Centre Vision

- 1.21 The South Shields 365 Town Centre Vision document sets out a sustainable economic vision for South Shields which will help create new opportunities for residents, businesses and visitors. It identifies the economic core of the headland comprising three distinct geographic 'character areas' namely the Riverside, the town centre and the Foreshore with each serving a distinct economic function for South Shields.
- 1.22 Fundamental to the strategy is linking these areas to ensure a broader experience for residents and visitors and for increasing internal expenditure. This needs to be supported by improving permeability and legibility within the town centre connecting the traditional heart of the centre with the new opportunities.

Tyne and Wear Local Transport Plan 3 (LTP3)

- 1.23 The third Local Transport Plan for Tyne and Wear comprises of a ten-year strategy (2011 2021) encompassing all forms of transport. The strategy will be out into effect through a series of three-year delivery plans, the first of which will run from 2011 to 2014.
- 1.24 The vision for LTP3 is:

Tyne and Wear will have a fully integrated and sustainable transport network, allowing everyone the opportunity to achieve their full potential and have a high quality of life. Our strategic networks will support the efficient movement of people and goods within and beyond Tyne and Wear, and a comprehensive network of pedestrian, cycle and passenger transport links will ensure that everyone has access to employment, training, community services and facilities.

- 1.25 In order to achieve this vision five goals have been set:
 - to support the economic development, regeneration and competitiveness of Tyne and Wear, improving the efficiency, reliability and integration of transport networks across all modes;

- to reduce carbon emissions produced by local transport movements, and to strengthen our networks against the effects of climate change and extreme weather events;
- ▼ to contribute to healthier and safer communities in Tyne and Wear, with higher levels of physical activity and personal security;
- to create a fairer Tyne and Wear, providing everyone with the opportunity to achieve their full potential and access a wide range of employment, training, facilities and services; and
- ▼ to protect, preserve and enhance our natural and built environments, improving people's quality of life and creating high quality public places.
- 1.26 The proposed development is considered to sit within the policy framework and particularly build on the key elements of promoting economic development and prosperity within a safe, sustainable and efficient environment.

2 South Shields Masterplan Overview

- 2.1 South Tyneside Council and Muse Developments are actively working in partnership to deliver a significant step change in the quality of the retail and leisure offer in the town centre as well as improving the general visitor experience.
- 2.2 The proposed Masterplan site in relation to the surrounding areas can be viewed on **Figure 2.1**.

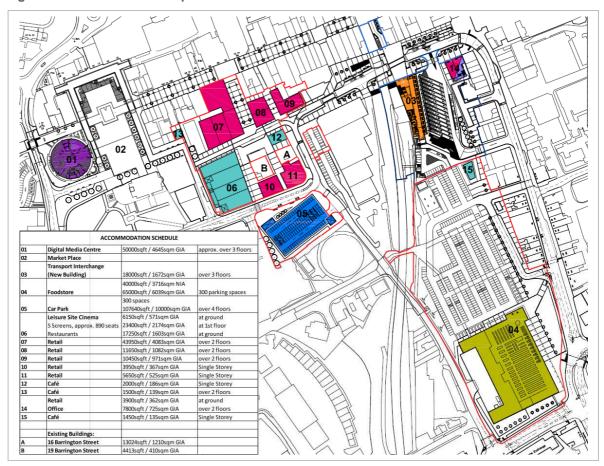


Figure 2.1 Illustrative Masterplan

- 2.3 The retail market has been identified as a key area which will undergo a number of new improvements and extensive development throughout the scheme. The Masterplan has identified a provision for extensive new retail space on King Street and Barrington Street. These units have been designed to accommodate retailers who are new to the town but who cannot currently find suitable premises on King Street for their operations.
- 2.4 The regeneration proposals for this area include the demolition of existing buildings to be undertaken by the council as well as the realignment of Barrington Street so that it is linear with Keppel Street.
- 2.5 This will allow the realigned Barrington Street to have a pedestrianised feel allowing for improved linkages between the north and south parts of the town centre. A new retail circuit is created as a result improving the retail experience for all.

- 2.6 It is envisaged that the proposed new leisure provision in Barrington Street will encourage visitors to stay in South Shields later into the evening. Proposals for a new cinema together with family oriented restaurant units will mean that early evening attractions are created.
- 2.7 A new food store is also planned to further reinforce retail spend in the town centre and to provide a wider choice of convenience shopping. The food store will be orientated to create a land mark building at this key gateway to South Shields town centre. The food store's main facade will face Fowler Street creating an active civic scale facade with service access at the rear on Garden Lane. The food store will include a 300 space car park. It is anticipated that this car park will operate in a similar manner to the existing ASDA car park i.e. non-food store users will be charged for using this car park whereas food store customers will enjoy free parking via their tickets being validated when spending more than a given amount.
- 2.8 Provisions to improve parking measures within the town centre for existing business and visitor use including two new car parks both on existing Council owned sites at Oyston Street and Harton Quay.
- 2.9 The development will also include a number of high quality enhancements and infrastructure works creating two new public squares, improved pedestrian links, new bus stops on Coronation Street and a large reduction in bus movements along Keppel Street by removing the two way flow of existing services.
- 2.10 The Masterplan includes proposal for the development of a new Transport Interchange. In order to improve existing transport links the proposal includes plans to close Chapter Row and redirect the east-west bus routes onto Coronation Street. The proposals will allow for greater interaction between transport modes and will provide a great first impression for people arriving in South Shields.

3 Existing Site Conditions

SITE LOCATION

- 3.1 The proposed development is located within South Shields town centre, the largest urban settlement in South Tyneside.
- 3.2 The development is located centrally to the town centre and therefore provides connections not only to the employment and retail core but also the leisure and tourism facilities associated with the Riverside and Foreshore. The development in relation to the surrounding area and the three distinct geographical areas can be viewed on **Figure 3.1**.

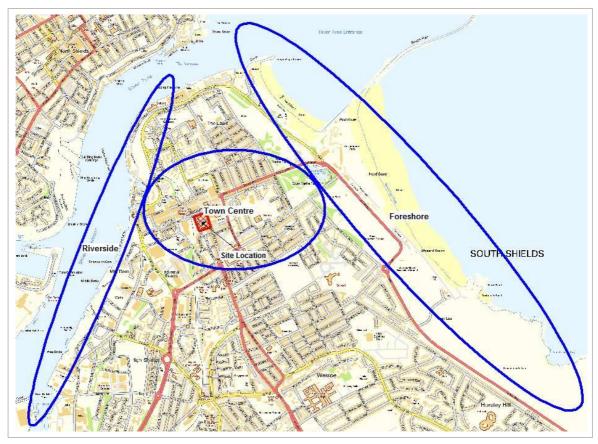


Figure 3.1 Site Location in context of the town centre

HIGHWAY NETWORK

Town Centre

- 3.3 The road network in South Shields is typical of a town centre in that it seeks to find the right balance between access by general traffic, access for servicing and access by public transport.
- 3.4 Permeability of the central area for general traffic is constrained on Fowler Street, north of Winchester Street, through Keppel Street and Chapter Row with these areas given over to buses however observations suggest that this is abused. Access to town centre car parks is afforded by

- the remaining road network. Service vehicles can access all of the town centre area although timed constraints exist.
- 3.5 The Keppel Street/|Chapter Row link through the town is currently dominated by buses, effectively using the highway as a bus interchange. Buses currently use the westbound carriageway route to drop off, undertake a 'U' turn at the roundabout, and then pick up on the eastbound carriageway. This results in a substantial amount of carriageway and associated infrastructure in the central area which results in segregation of pedestrian routes and very poor pedestrian permeability.
- 3.6 The Metro is a very important asset, however the entrance into it is poor and the space is not very attractive considering this should be a visual gateway into the town for public transport users.
- 3.7 Its road network benefits from its geography, in that vehicles in South Shields are there to visit South Shields rather than are passing through on the way to somewhere else. As such its road network does not experience substantial congestion even during peak hours.
- 3.8 The A194/A1018 signalised junction in front of the Town Hall is considered to be the most prone to congestion, however this is very localised to the junction and occurs primarily during peak periods.
- 3.9 Seasonal congestion can occur as a result of the proximity to the Foreshore area during good weather spells and during events such as the Great North Run. These are however intermittent and do not give rise to ongoing operational problems.
- 3.10 There are a number of car parks in the town centre with some used more frequently than others. Car parks located to the north of King Street (North Street) and the car parks in the central area (Oyston Street & Garden Lane) are well used throughout the day. The car parks located to the rear of Fowler Street are less well used.
- 3.11 The nearest strategic road to the site is the A19 dual carriageway which runs approximately 4 kilometres southwest of the site. It runs north to south and links Northumberland and North Tyneside to South Tyneside, Sunderland and Middlesbrough via the Tyne Tunnel.
- 3.12 The key access route from the A19 corridor is via the A194 Western Approach which runs in a north easterly direction to South Shields town centre. The other main access routes to South Shields are via the A183 Coast Road (from the south via the east coast) and the A1018 Westoe Road (from the south towards Sunderland).

A194

- 3.13 The A194 road is a dual carriageway. It runs northeast from its start at junction 65 of the A1(M) near Washington, and the first 3 miles (4.8 km) are motorway standard, designated the A194(M) and subject to the national speed limit. There are various intermediate junctions with the A182 and the A195 before the motorway section ends at the A184 Whitemare Pool junction.
- 3.14 The A194 from Whitemare Pool is subject to a 50mph speed limit until the A19 Lindisfarne junction. North of this junction the A194 is subject to a 40mph speed limit until Laygate where it is reduced to 30mph as it passes through the residential areas of South Tyneside.

A183

- 3.15 The A183 road runs from South Shields, through Sunderland and towards Chester-le-Street in County Durham. It is a major route in South Tyneside, Sunderland and Chester-le-Street serving many areas and landmarks along its route.
- 3.16 The A183 is subject to a 30mph speed limit as it passes through the town centre on an easterly approach to the foreshore.

A1018

3.17 The A1018 runs between South Shields and the A19 near Seaham, County Durham via Sunderland. The A1018 is subject to a range of speed limits, but is 30mph as it passes through the residential areas of South Tyneside towards the town centre.

COLLISION ANALYSIS

- 3.18 This section of the report analyses the collisions that have occurred within the vicinity of the development site in a three year study period between January 2012 and March 2015.
- 3.19 **Figure 3.2** shows the collision locations and severities across the town centre area and within the vicinity of the development.

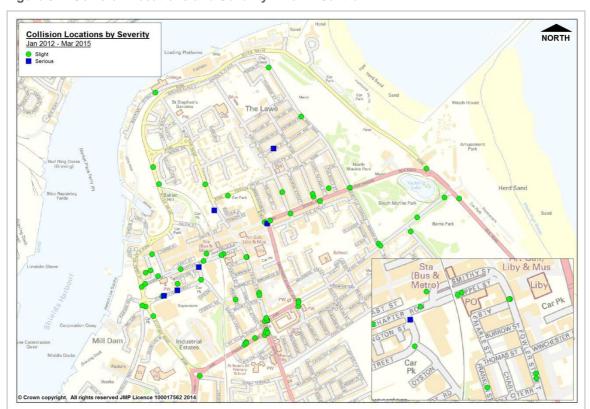


Figure 3.2 Collision Locations and Severity - Town Centre

3.20 67 collisions have occurred across the town centre area during the study period. The vast majority of collisions (61) were slight in nature, with 6 classified as serious. The collisions by year and severity can be seen in **Table 3.1**.

Table 3.1 Collisions by Year and Severity – Town Centre Area

Year / Accident Severity	Slight	Serious	Fatal
2012	23	3	0
2013	22	2	0
2014	15	1	0
Jan 2015 – Mar 2015	1	0	0

3.21 Looking in more detail at the highway around the proposed development i.e. from the Fowler Street/Winchester Street junction to the Keppel Street/Coronation Street junction identifies the collisions shown in **Table 3.2**.

Table 3.2 Collisions by Year and Severity – Vicinity of the Development

Year / Accident Severity	Slight	Serious	Fatal
2012	2	1	0
2013	3	0	0
2014	2	0	0
Jan 2015 – Mar 2015	0	0	0

- 3.22 Assessment of the collision reports identifies that of the 8 collisions, 4 involved passengers falling on buses. The cause of these incidents were as a result of interaction between pedestrians and buses resulting in buses having to stop quickly or buses moving off from stops before passengers were sat down.
- 3.23 Two collisions occurred as a result of conflict between pedestrians and buses, one as a result of conflict between a pedestrian and a car and one as a result of vehicular conflict.
- 3.24 The proposed scheme will have a substantial impact upon the movement of buses around the town centre. The provision of a dedicated bus station will allow for further segregation of bus and pedestrian movements which will allow for reduced conflict. The scheme will also include improved pedestrian routes and crossing facilities between the Interchange and the wider town centre area.
- 3.25 The processed collision data can be seen in **Appendix A**.

Car Parks

3.26 There are a number of existing public town centre car parks which will offer parking opportunities for users of the development as shown in **Table 3.3**.

Table 3.3 Public Town Centre Car Parks

Parking Area	Time of Charge	Charge		
Short Stay Parking Areas				
Salem Street (34)	9am to 6pm	Mon-Sat - 1p per min for first hour, 80p per hour thereafter /		
North Street (115)	9am to 6pm	max stay 2 hours		
, ,	'	Sun – 1p per min, £1 all day		
Denmark Centre (120)	9am to 5pm	70p per hour		
Garden Lane North (75)	9am to 6pm	70p per hour		
Library	9am to 6pm	Sat – 1p per min for first hour, 80p per hour thereafter / max stay 2 hours		
	(weekends only)	Sun – 1p per min, £1 all day		
Broughton Road, Anderson Street, Beach Road West		Everyday - 1p per min for first hour, 80p per hour thereafter / max stay 2 hours.		
East Street (16)		Mon-Sat - 1p per min for first hour, 80p per hour thereafter / max stay 2 hours		
` '		Sun – 1p per min, £1 all day		
	Long Stay	Parking Areas		
Thomas Street (50)				
Charlotte Street (153)	9am to 6pm	Mon-Sat - 1p per min for first hour, 80p per hour thereafter / max stay 2 hours. £3 all day.		
Oyston Street (95)	Sain to opin	Sun – 1p per min, £1 all day		
Mile End Road		our ip por min, 21 air day		
Mill Dam (172)	9am to 5pm	Mon-Sat - 70p per hour		
IVIIII Daili (172)	Sain to Spin	Sun - £1 all day		
Winchester Street (155)	9am to 6pm	Sat - 1p per min for first hour, 80p per hour thereafter / max stay 2 hours. £3 all day.		
, ,	(weekends only)	Sun – 1p per min, £1 all day		
	Free Pa	arking Areas		
Fowler Street (7)		Max stay 20 mins		
Garden Lane (26)		Max stay 2 hours		
Claypath Lane (40)		Weekends only		

3.27 These are supplemented by a number of private car parks including ASDA and Morrisons.

SUSTAINABLE TRANSPORT NETWORK

Buses

3.28 There is a comprehensive network of existing bus services in South Tyneside which will need to be accommodated within the proposed Interchange. The services that currently access South Shields are outlined in **Table 3.4**.

Table 3.4 Bus services in the town centre

Service	Route	Mon – Sat Daytime	Mon – Sat Evening	Sunday Daytime	Sunday Evening
			uency (number	of services per h	our)
		ecoach		T	
3/4	South Shields – Biddick Hall – South Shields	6	2	2	2
7/8	South Shields – Marsden – South Shields	6	2	2	2
10/11	South Shields – Harton Nook – Biddick Hall – Low Simonside – South Shields	2	2	2	2
12	The Lonnen – South Shields	2	2	2	2
13/14	South Shields – Horsley Hill – Biddick Hall – Low Simonside – Jarrow	2	-	-	-
16	South Shields –Whitleas – South Shields	4	-	4	-
17	South Shields – Whitleas – South Shields	4	2	2	2
18	South Shields – Brockley Whins – South Shields	6	2	2	2
E1	South Shields - Whitburn - Sunderland	3	2	2	2
E2	South Shields - Whitburn - Sunderland	3	2	2	2
E6	South Shields – Whitburn – South Shields	3	2	2	2
X20	South Shields – Simonside – Fellgate – Simonside – South Shields	2	-	-	-
	Go No	rth East			
27	Newcastle – Heworth Metro – Jarrow – South Shields	2	2	2	2
27A	Newcastle – Heworth Metro – Jarrow – South Shields	2	-	4 (per day?)	-
30	South Shields - Cleadon - Boldon	2	1	1	1
35	South Shields – Sunderland – Houghton-le- Spring – Hetton Le Hole	4	2	4	2
50	South Shields – Washington – Chester-le- street – Durham	2	1	1	1
57	Newcastle – Gateshead – Leam Lane – Heworth – Fellgate – South Shields	2	2	2	2
57A	Newcastle – Gateshead – Leam Lane – Heworth – Fellgate – South Shields	2	1	1	1
88	South Shields – Jarrow – Monkton Lane Estate	2	2	2	2
	Budge	t Buses			
500	South Shields - The Lawe - South Shields	1	-	-	-
501	South Shields - Pier Head - South Shields	1	-	-	-
TB502	South Shields – Simonside – South Tyneside General Hospitcal	1	-	-	-

- 3.29 The services provide frequent access to the site from key residential areas in South Tyneside such as Cleadon, Boldon and Whiteleas as well as services to Newcastle, Gateshead and Sunderland.
- 3.30 The site is located in South Shields town centre, where passengers can access the extensive bus network that covers South Tyneside and Sunderland. There are a number of existing bus stops at the Keppel Street Bus Station and one set down stop (where passengers can alight but are not able to board a bus).
- 3.31 The South Shields Metro Station is also situated next to the Keppel Street Bus Station and a Nexus Travel Centre is located close by on Fowler Street. Additionally there are two bus stops on Fowler Street in the town centre.

Figure 3.3 Existing bus stop locations in vicinity of the development LEGEND New Transport Interchange SALEM ST Art Gall, Liby & Mu Mill Dam Industrial

Figure 3.3 shows the number of bus stops within the vicinity of the development.

Community Transport Options

kilometres

3.33 A number of alternative public transport options are available to residents of South Tyneside. Taxicard is a smartcard that contains £125 worth of taxi fares that can be used when using taxis. The passenger pays the first £1.50, then the next £3.00 is deducted from the card. The remainder of the fare is then made up by the passenger. People automatically qualify for this scheme if they receive high rate mobility component of the disability living allowance, attendance allowance or are registered as severely visually impaired or blind.

Metro Services

3.32

3.34 The South Shields Metro Station is located in close proximity to the site. The Tyne and Wear Metro network can be seen in Figure 3.4. South Shields is positioned on the yellow line, which serves many destinations in North and South Tyneside, including major employment attractors such as Gateshead and Newcastle. The green line is also accessible to people via Pelaw. The green line provides further access to and from the airport and South Hylton via Sunderland, stopping at many destinations in South Tyneside including Fellgate, Brockley Whins and East Boldon.

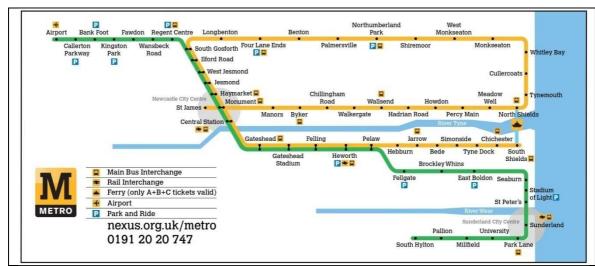


Figure 3.4 Map showing the Tyne and Wear Metro Network

Source: Nexus.org.uk

3.35 Services from the South Shields Metro Station are outlined in the table below. The first service on weekday and Saturday mornings is 05:45 and 05:51 respectively, while the first service on a Sunday morning is at 07:03. The Metro operates until approximately midnight seven days a week.

Table 3.5 Frequency of Metro services from South Shields Station

Day	Daytime Frequency	Evening Frequency
Monday to Friday	Every 12 mins	Every 15 mins
Saturday	Every 12 mins	Every 15 mins
Sunday	Every 15 mins	Every 15 mins

3.36 The table below provides several examples of approximate Metro journey times from the South Shields Station. The journey time from the South Shields to the Chichester Station is approximately two minutes.

Table 3.6 Examples of approximate journey times from the South Shields Station

Destination	Approximate journey time
Pelaw	17 minutes
Heworth	19 minutes
Gateshead	24 minutes
Newcastle (Monument)	28 minutes
Newcastle (Haymarket)	29 minutes
South Gosforth	36 minutes
Whitley Bay	54 minutes

3.37 South Shields Metro Station does not have dedicated car parking facilities, but does have a taxi rank, cycle parking (eight spaces at the bottom of the station steps) and information points.

Ferry

3.38 The ferry landing at South Shields is located to the west of Ferry Street located approximately 500m west of the proposed development. There is pedestrian access from Ferry Street to the ferry landing

- stage. The Shields Ferry provides passenger transport across the River Tyne between two floating landing stages at North Shields and South Shields.
- 3.39 The ferry connects with other public transport services in close proximity on the north and south side of the River Tyne, including bus and Metro networks via the existing footpath network. Ferries depart from each landing every 30 minutes and the journey takes approximately seven minutes. **Table 3.7** below summarises the ferry timetable.

Table 3.7 Summary timetable for ferry crossings

Service	From North Shields to South Shields	From South Shields to North Shields
First Service	Mon-Wed 07:00	Mon-Wed 06:45
	Thurs-Sat 07:00	Thurs-Sat 06:45
	Sunday 10:30	Sunday 10:15
Last Service	Mon-Wed 20:00	Mon-Wed 19:45
	Thurs-Sat 22:50	Thurs-Sat 22:40
	Sunday 18:00	Sunday 17:45

Pedestrian Infrastructure

- 3.40 The site is located within the developed retail centre of South Shields and, as such, is surrounded by an extensive pedestrian network. Footways from the development offer connections to all facilities within South Shields town centre and the surrounding residential areas.
- 3.41 The existing footways are considered to be a suitable width to accommodate passing push chairs, those with small children, wheelchairs and those with varying levels of disability and visual impairment. The footways lead to a number of formal and informal pedestrian crossings within the area. All crossings are provided with dropped kerbs and appropriately coloured tactile paving.

Cycle Infrastructure

- 3.42 There are 3 National Cycle Network (NCN) routes in close proximity to the proposed development site. These are:
 - NCN Route 1 Dover to Shetland via the east coast;
 - NCN Route 14 Three Rivers Cycle Route, Stockton to South Shields via Hartlepool, Durham, Consett and Gateshead; and
 - NCN Route 72 Hadrian's Cycleway, Kendal to South Shields via Whitehaven, Carlisle, Newcastle upon Tyne and Tynemouth.
- 3.43 Within South Tyneside NCN Routes 14 and 72 are mainly on road with some section traffic free whereas NCN Route 1 is almost entirely on traffic free paths. In addition there is also on road cycle facilities along the length of King George Road. The proposed development is located in close proximity to where the three cycle routes meet therefore making it very well located with regard to cycling.
- 3.44 The cycling network also provides opportunities to integrate with other sustainable modes of transport, such as the Shields Ferry and Metro stations in the area.

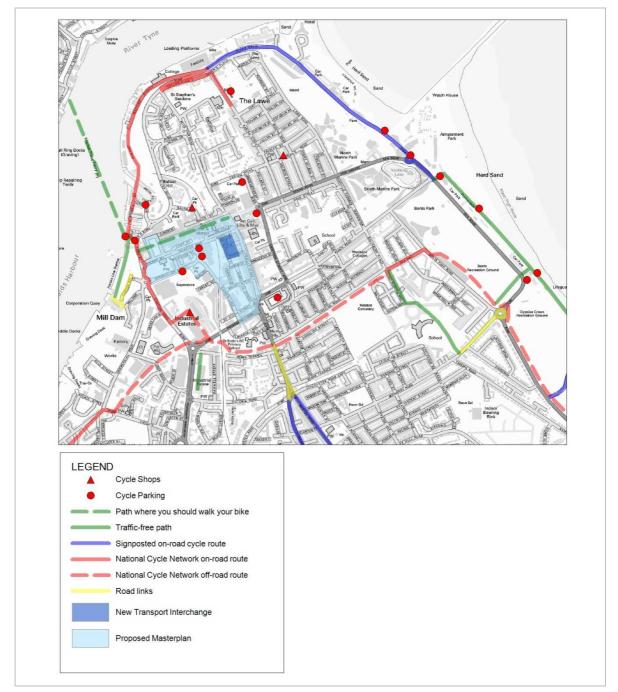


Figure 3.5 Existing Cycle Network

Taxi

There are currently various taxi pick-up and drop-off locations across the town centre as shown on **Figure 3.6**.

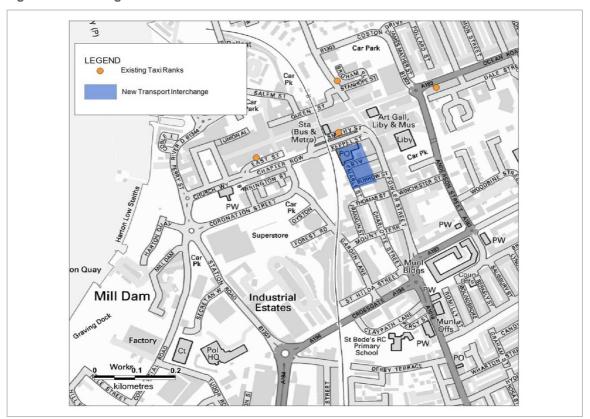


Figure 3.6 Existing taxi ranks within South Shields town centre

4 Development Proposal

TRANSPORT INTERCHANGE

- 4.1 The new Interchange is designed to accommodate a variety of public transport modes within one facility allowing for interchange between modes. The Interchange building will allow for access to 15 bus bays, one of which will be dedicated to use by coaches. There will be a drop off space in advance of the main bays and also a layover area with capacity for three buses.
- 4.2 The bus station comprises a concourse or apron set parallel to the Metro line and a series of drive-in, reverse out (DIRO) stands. Extensive consultation with the bus operators and Nexus has led to the agreement of the DIRO layout. Essential to this requirement is the need to separate passenger / pedestrian and vehicle flows. In designing the bus station layout JMP has considered the requirements of the following guidance:
 - Guidance for the design and safe operation of bus stations and interchanges (June 2011)
 - → TfL Interchange guidance (April 2002)
- 4.3 The coach bay will allow local and national coach services to gain direct access to the town centre, allowing visitors to easily access other areas of the town thus increasing footfall and economic activity.
- 4.4 Access to the Metro platform will be via stairs, lift and escalators. The new metro station will include new ticket machines and gates and new covered waiting areas on the platform for passengers.
- 4.5 Buses and coaches will access the interchange from Fowler Street via the reconfigured Burrow Street. The apron area is designed to be a one way through route which will maximise the efficiency of the layout. Egress will therefore be via Keppel Street.
- 4.6 The development includes a short stay car park accessed via William Street and will have on site cycle parking provision located in close proximity to the interchange building.
- 4.7 The scheme also includes the provision of a new taxi rank and loading bay on Keppel Street. These facilities provide a much improved arrangement to the existing provision on Smithy Street.
- 4.8 The proposals also include works to Keppel Street including the provision of an improved public realm incorporating upgraded pedestrian routes.
- 4.9 Rear access to the proposed retail/office outlet and the existing retail premises on Fowler Street adjacent will also be improved via a revised service area layout.



Figure 4.1 Proposed Development

4.10 The proposed layout of the Interchange, and associated auto-tracking, can be seen on **Drawing Refs:** NEA1239/BS/GL01 & NEA1239/BS/SP01 in Appendix B.

Bus Routing

- 4.11 The Interchange development and implementation of the wider Masterplan will be supported by the rerouting of buses within the town centre. The purpose of this to reduce the dominance of the town centre by buses currently using Keppel Street and Chapter Row effectively as a bus interchange and to provide a critical mass of bus and interchange activity in one location.
- 4.12 Buses currently use the westbound carriageway route to drop off, undertake a 'U' turn at the roundabout, and then pick up on the eastbound carriageway. This results in a substantial amount of carriageway and associated infrastructure in the central area which results in segregation of pedestrian routes.
- 4.13 Consultation with the bus companies and Nexus has therefore resulted in a revised approach to routing whereby buses pass through the town centre running in an anti-clockwise direction. The routing can be seen on **Figure 4.2** below:

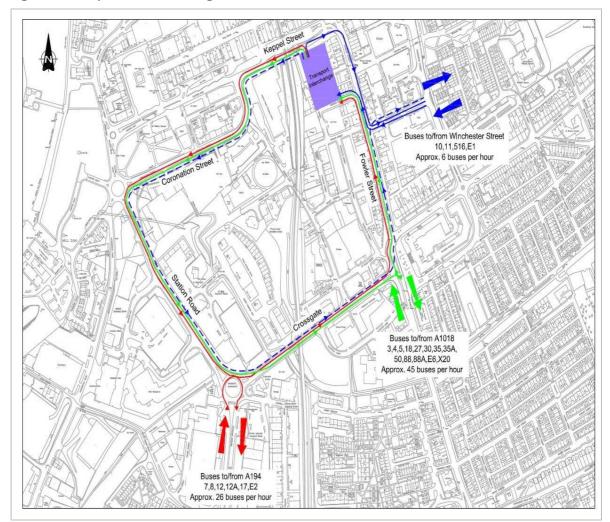


Figure 4.2 Proposed Bus Routing

- 4.14 There will be approximately 26 buses per hour to/from the A194 including the No 7, 8, 12A, 17 and E2.
- 4.15 There will be approximately six buses per hour which will access the proposed Interchange via Winchester Street including the No. 10, 11, 516 and E1 services.
- 4.16 The majority of buses will access the interchange via the A1018 and will offer up to 44 buses per hour to the site including the No 3, 4, 5, 18, 27, 30, 35, 35A, 50, 88, 88A, E6 and X20 services.
- 4.17 The distances travelled by buses using existing routing and future routing options has been measured for the three main access points to the town centre. The measurements have been taken from fixed points as identified in **Table 4.1**.

Table 4.1 Difference in travel distance by route

Route	Start/Finish Point	Existing Route	Future Route	Journey Savings
A194	10m south of Crossgate Rbt	2.63km	1.80km	-0.83km
A1018	End of splitter island on northbound approach to Town Hall signals	1.86km	1.74km	-0.12km
Winchester St via Coronation St	Westbound exit from junction with Anderson St	1.60km	1.93km	+0.33km
Winchester St via Fowler Street	Westbound exit from junction with Anderson St	1.60km	0.71km	-0.89km

- 4.18 As can be seen the proposed routing options result in reduced travel distances for the A194 and A1018 routes which carry the majority of buses (approximately 70 buses per hour). Buses from Winchester Street (6 per hour) see an increase in travel distance if they continue in an anti-clockwise direction via Coronation Street. Alternately if those buses turned right out of the interchange and returned to Winchester Street via Fowler Street they would see a reduction in travel distance.
- 4.19 Based on the assessment above, even assuming the routing of the Winchester Street buses via Coronation Street, the total journey savings in one hour is 24.9km.

Bus Stand Allocation Exercise

- 4.20 The allocation of bus stands is a function of the quantum of buses present and the corridors on which they operate. In a bus station environment the allocation of stands should follow logical system for passenger experience purposes with common corridors at adjacent stops where possible.
- 4.21 Analysis of timetables shows a maximum of 10 buses in any single minute present in the town centre. In practice a stand allocation exercise develops this in a route by route assessment of how each stand would be occupied on a minute by minute basis.
- 4.22 The analysis was conducted for a typical hour during the main Monday to Friday operating day. The assessment indicates a maximum of 10 buses at any one time in the South Shields town centre area and occupying a bus stand.
- 4.23 However in practical terms 10 stands will be insufficient to accommodate fully the services currently operating.
- 4.24 For example, service 18 has arrivals and departures which overlap in time and would therefore require at least two stands or adequate layover provision. Service 8 would virtually have a single stand in full time use. This equates to an additional 2 stands required. Service 12 would use two stands in this analysis, one for each direction but could be accommodated on a single stand, albeit with less clarity to the travelling public. It is therefore appropriate that two stands remain allocated.
- 4.25 The arrival and departures from the bus station will, if operating to the published timetable, require 12 stands. On the basis that 'on time' is defined within the traffic commissioner's statutory guidance as operating within one minute early and five minutes late the provision of an additional stand and layover bays is necessary to ensure the bus station will continue to function during disruption to service and to allow for minor variations in the scheduled operation of services.
- 4.26 Further to this assessment it is recommended that one additional bay is provided allowing for resilience.

 An additional three layover bays are considered appropriate to allow further flexibility of use.

Growth

- 4.27 The 365 masterplan includes for the enhancement of the retail and leisure offer in South Shields. This is coupled with the South Tyneside Core Strategy which outlines the development aspirations for the wider South Tyneside area.
- 4.28 Given the already high proportion of trips within South Tyneside undertaken by sustainable modes of transport; the development aspirations are anticipated to result in future growth in patronage and service provision.
- 4.29 It is considered a reasonable assumption that the bus operators will react to increased frequencies rather than vehicle sizes (the area has an all single decker bus fleet). On that basis it is considered that an additional 8 vehicle movements per hour (circa 300-340 additional seats per hour) may be required in the future.
- 4.30 A single additional stand within the bus station, bringing the provision up to 14, will allow for this increase to be catered for.

Off station bus stops - Coronation Street

- 4.31 The stops in Coronation Street serve the west end of the town centre. Demand in this area will be increased by the proposed retail and leisure opportunities identified in the Masterplan. Five existing stands are provided although access to these stands is restricted if another bus is utilising the stand i.e. a bus would be unable to get flush to the kerb if another bus is in an adjacent stand.
- 4.32 As such, a detailed assessment of the stopping arrangements in Coronation Street has been made to understand the implications of the new Transport Interchange on operations there.
- 4.33 Currently there are five stops (on the westbound carriageway) in Coronation Street although as outlined above, full accessibility of all five stands is restricted if another bus is utilising the stand.
- 4.34 A minute by minute assessment of current timetables based on a one minute dwell time shows two incidences when four stops would be required when the bus station and new routings are implemented.
- 4.35 When assuming a scenario of additional demand resulting in an additional eight services (spread evenly across the hour at seven minute intervals). Utilising a one minute stopping time again results in the same two incidences when four stops are occupied.
- 4.36 To provide further robustness to the assessment, the exercise has been repeated using a two minute stopping time. This is considered unlikely but provides further comfort and flexibility to the analysis.
- 4.37 The minute by minute assessment has been repeated which identifies that again four stops are required throughout the hour when the bus station and new routings are implemented. However again allowing for growth, eight additional services assuming a two minute stopping time (spread evenly across the hour at seven minute intervals), results in one minute per hour where five stops are possibly required.
- 4.38 Therefore to ensure resilience, five stops will be accommodated on Coronation Street. The proposed layout of the Coronation Street stops, and associated auto-tracking, can be seen on **Drawing Refs:** NEA1239/MP/GL03 & NEA1239/MP/SP03 in Appendix B.

Off station bus stops – Station Road and Crossgate

4.39 Existing bus stops exist on Station Road and Crossgate based on the existing two-way routing around the town centre. The northbound stop on Station Road and the westbound stop on Crossgate will be obsolete under the new routing arrangement and can therefore be removed.

- 4.40 An existing shelter exists on the southbound carriageway of Station Road north of the Henry Robson Way junction which is understood to be disused which will be brought back into use. A second stop will be provided on Station Road to the north of the Crossgate roundabout.
- 4.41 The existing stop on Crossgate will be retained although an upgraded facility will be provided through a double length marked bus bay with a clearway marking.

RETAIL & OFFICE DEVELOPMENT

- 4.42 The proposed development includes retail and office provision in a building located to the east of the Interchange and will provide an active frontage onto Keppel Street. This will provide accommodation for 293m² of retail space (ground floor) and 620m² of office space (1st and 2nd floor).
- 4.43 Access to the new outlet for general traffic will be afforded by the existing and proposed town centre car parks which are located within walking distance of the proposed development. The proposed Transport Interchange will allow for easy access by bus and Metro to within close proximity of the development. The proposed cycle parking provision associated with the Interchange, supplemented by the existing cycle parking provision in the town centre, will also allow for cyclists to be within walking distance of the development.
- 4.44 Servicing to the retail/office development will be via the rear of the building accessed via Albemarle Street. Servicing to existing premises fronting Fowler Street will be retained again via Albemarle Street.
- 4.45 Taxi bays will be located to the northern kerb of the revised carriageway opposite the exit from the Interchange and the new retail/office development.

PUBLIC REALM IMPROVEMENTS

- 4.46 The proposed scheme includes for public realm improvement works on Keppel Street between the new Interchange and the rear of King Street. The works will include the reduction in carriageway space and infrastructure associated with existing bus stands. The carriageway will be narrowed with two-way running retained to the east and to one-way running provided to the west of the Interchange exit. Improved pedestrian provision will be provided in these areas through wider footways and improved crossing facilities. Landscaping will also be provided.
- 4.47 The existing loading and taxi bays located on Smithy Street will be upgraded as part of the public realm works. A new loading bay and taxi rank will be located to the northern kerb of the revised carriageway opposite the exit from the Interchange and the new retail/office development.

HIGHWAY IMPROVEMENTS

- 4.48 The proposed amendments to the town centre discussed above including the revised bus routing arrangement will result in fundamental changes to the operation of the highway network in the town centre. The most fundamental change is the establishment of a one way system that runs anti-clockwise through the town centre from north of Winchester Street to the Waterloo Square/Barrington Street junction. This will be designated as a bus, taxi and cycle lane except for access by loading vehicles between 6pm and 8am.
- 4.49 The section of Chapter Row between East Street and Waterloo Square will be closed to traffic. Access to East Street will be maintained via Church Way.
- 4.50 The existing one way system on Cornwallis Street and Barrington Street will be altered to run in the opposing clockwise direction. This is to allow for a better interaction with the one way system along Keppel Street.

- 4.51 These will be supported by a number of measures at the junctions on the approaches to the town centre. These are discussed in more detail below.
- 4.52 At the A194 Western Approach/Crossgate junction it is proposed to provide a new bus lane on the southbound approach to the roundabout running a distance of approximately 100 metres. This bus lane ties into the existing flare and therefore no existing carriageway space allocated to general traffic is lost.
- 4.53 At the Station Road/Coronation Street junction it is proposed to introduce partial signalisation at the roundabout identified for the northern arm and the opposing eastbound circulatory carriageway. The scheme is considered to break up the flow of traffic that will conflict with bus movements from Coronation Street.
- 4.54 At the A1018/Cossgate/Beach Road junction the proposed scheme includes the maximising of capacity on approach to the junction through localised widening. This is supplemented by pedestrian crossings on the key pedestrian routes.
- 4.55 Details of interim changes to the town centre road network can be seen on **Drawing Refs:** NEA1239/IS/GL02, NEA1239/IS/SI02 & NEA1239/IS/SR02 included in Appendix B.

5 Trip Generation & Distribution

TRAFFIC SURVEYS AND BASE NETWORK FLOWS

- 5.1 Manual traffic counts, supplemented by queue length surveys, were undertaken by Capita Symonds on behalf of South Tyneside Council in December 2013. The surveys covered the town centre area. This data has been provided to JMP for use within the assessment process.
- 5.2 Analysis of the survey data by Capita identified the network peak hours as 08:30 09:30 and 16:45 17:45. These network peak hours will therefore be used within the assessment.
- 5.3 As December is not considered to be a neutral month, it is considered appropriate to undertake a sensitivity test against data from a neutral month to ascertain the validity of the surveyed data. There is also a requirement to assess the increase, if any, in background traffic growth since December 2013.
- To address both of these issues, a comparison of ATC data collected at the same time as the surveys in December 2013 with four individual weeks of ATC dated collected in October 2014 (the most recent complete set of data) was considered appropriate.
- 5.5 The Traffic and Accident Data Unit has been contacted to acquire available ATC data for the South Shields area. Four ATC locations have been identified which are shown on **Figure 5.1** below.

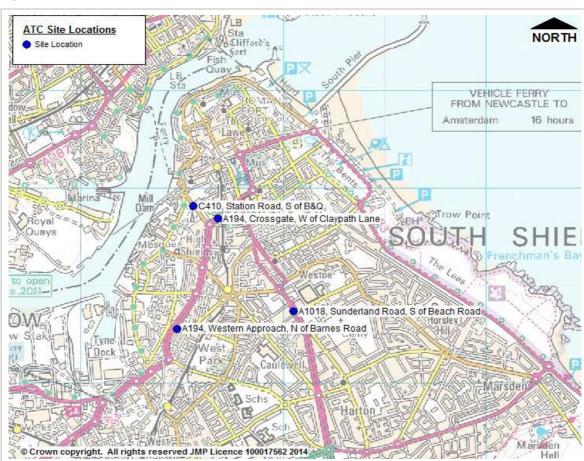


Figure 5.1 Automatic Traffic Counter Locations

5.6 **Table 5.1** identifies a comparison of the weekday (Monday – Thursday) flows for December 2013 flows with the weekday flows for October 2014 for a range of time periods. The full output data can be seen appended to this document.

Table 5.1 Comparison of Weekday Flows

Location	AM Peak 0800-0900	3hr AM Peak 0700-1000	PM Peak 1700-1800	3hr PM Peak 1600-1900	12 Hour 0700–1900	24 Hour 0000 – 0000
	Oct14/Dec13	Oct14/Dec13	Oct14/Dec13	Oct14/Dec13	Oct14/Dec13	Oct14/Dec13
A1018	1.01	0.99	1.04	1.01	0.99	0.99
Crossgate	0.97	0.99	1.13	1.11	1.02	1.04
A194	0.99	0.98	1.02	0.99	0.99	0.99
Station Rd	0.96	0.93	0.91	0.90	0.91	0.91
Network Average	0.98	0.97	1.03	1.00	0.98	0.98

- 5.7 As can be seen the flows from December 2013 and October 2014 are very similar, with on average the flows from December 2013 being higher than the flows from October 2014.
- 5.8 This is considered to demonstrate that use of the surveyed December 2013 flows ensures a robust assessment of the road network capacity.
- 5.9 This exercise allows for the identification of:
 - Weekday morning peak hour flows; and
 - Weekday evening peak hour flows.
- 5.10 However given that the proposed Masterplan includes a Supermarket, and is centred on a town centre, it is considered appropriate to undertake further analysis to identify if 'super-peak' periods occur at Friday evenings and Saturday lunchtimes.
- 5.11 Comparison of the December 2013 ATC data for the Friday evening peak and Saturday lunchtime peak with the ATC data for the weekday evening peak for December 2013 can be seen in **Table 5.2**.

Table 5.2 Comparison of Weekday Peak Flows with Friday and Saturday Peaks

Location	Weekday PM Peak 1700-1800	Friday PM Peak 1700-1800	Difference between Weekday and Friday Evening Peak	Saturday Lunchtime Peak 1200- 1300	Difference between Weekday and Saturday Lunchtime Peak
A1018	1352	1399	-47	1500	-148
Crossgate	971	1019	-48	1076	-105
A194	1422	1422	0	1543	-121
Station Rd	843	987	-144	1241	-398

The analysis shows that the Friday evening peak is marginally higher than the weekday evening peak, with the largest difference being on the Station Road link. The analysis shows that the Saturday lunchtime peak is higher than the weekday evening peak, again with the largest difference being on the Station Road link. It is anticipated that that the Station Road link is different during these periods as there is an increase in vehicles accessing the town centre to visit the car parks.

- 5.13 To replicate this increase in flows, it is considered appropriate to hardwire the higher flows taken from the Station Road ATC into the traffic flow diagrams for the Friday evening peak and Saturday lunchtime peak and then redistribute these additional flows through the network based upon the existing turning proportions.
- 5.14 This exercise allows for the identification of:
 - Friday evening peak hour flows; and
 - Saturday lunchtime peak hour flows.
- 5.15 The base traffic flows for the time periods can be seen on **Drawing Ref: NEA1239/TF/01 /04** in **Appendix D**.

TRIP GENERATION

Person & Vehicle Trips

Interchange

- 5.16 The trip generation for the development will be undertaken by a mix of first principles and TRICS trip generation. The TRICS output can be seen in **Appendix C**.
- 5.17 The trip generation for the interchange itself will consider the number of buses serving the site during the network peak hours. This will include an analysis of routing and stand allocation.
- 5.18 Any additional trips to the site for example by staff working in the interchange building are considered to be nominal and will be scoped out of the assessment.
- 5.19 This results in the following vehicle trips:

Table 5.3 - Vehicle Trips - Interchange

		Week	day		Friday		Saturday	
	AM Peak		PM	Peak	PM Peak		Lunchtime Peak	
	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep
Interchange Vehicle Trips	76	76	76	76	76	76	76	76

5.20 These vehicle trips are of course existing services that will be redistributed as part of the assessment.

Retail

- 5.21 The proposed retail element will be 293m². The trip generation for the retail element will be determined from the TRICS database. Time specific trip generation rates have been calculated. Where this has not been possible the worst case time period has been utilised.
- 5.22 The land use sub-category 'Shopping Centre Local Shops' has been used. This is defined as:

'A collection of small local shops within close proximity, possibly with shared parking facilities. Would include a superstore with accompanying small shops if the small shops exceed 15% of the total floor space of the site'.

5.23 The TRICS database further states:

'Entries for A1 retail result in trip estimates for which extreme caution should be applied. Regardless of the use of historical data in this way, identifying trip rates for individual units within a multiple occupancy retail development (shopping centres) is extremely difficult and may not be related to individual vehicle trips without direct market survey style research. Publicly available information of this nature is not readily available and the figures referenced above remain the only estimate against which to provide a comparison for the proposed use'.

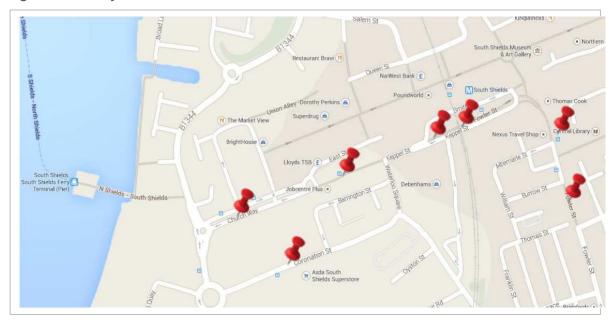
- Analysis has been undertaken to identify time specific multi-modal trip rates for the four time periods identified above. A multi-modal trip generation exercise is considered appropriate, given the location / proximity to sustainable transport modes and the potential for a number of trips to be undertaken by non-car modes.
- 5.25 The multi-modal trip rates to be used in the assessment are outlined below:

Table 5.4 Multi-Modal Trip Rates

	day		Friday		Saturday			
	AM Peak		PM I	Peak	PM Peak		Lunchtime Peak	
	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep
Person Trip Rates (per 100sqm)	11.718	11.196	11.215	11.793	16.694	17.804	16.694	17.804
Person Trips	34	33	33	35	49	52	49	52

- 5.26 As can be seen, no Saturday specific rates could be acquired from TRICS, therefore the higher Friday rates have been used.
- 5.27 The most appropriate modal split data for retail use is considered to be from the independent surveys undertaken by MRUK (July 2014) in South Shields town centre. They undertook 708 interviews, with at least 100 interviews at each of the following locations:

Figure 5.2 Survey Locations



MRUK

5.28 They identified the following modal splits for travel to the town centre:

Table 5.5 Mode Share for Retail Trips to the Town Centre

Mode	Mode Share
Car as driver	15%
Car as passenger	6%
Bus	53%
Metro	6%
Walking	17%
Bicycle	1%
Ferry	1%

- 5.29 Due to ambiguity within the question, it is unclear if the respondents who stated 'car as driver' were single occupants or had passengers. Although it is highly unlikely that all those who stated 'car as driver' were single occupancy vehicles, they will be used as such to result in a robust assessment.
- 5.30 This results in the following vehicle trips:

Table 5.6 Vehicle Trips - Retail Element

		Week	day		Friday		Saturday	
	AM Peak		PM I	Peak	PM Peak		Lunchtime Peak	
	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep
Vehicle Trips Retail Element	5	5	5	5	7	8	7	8

Office

- 5.31 The proposed office element will be 620m². The trip generation for the office element will be determined from the TRICS database.
- Analysis has been undertaken to identify time specific multi-modal trip rates for the four time periods identified above. A multi-modal trip generation exercise is considered appropriate, given the location / proximity to sustainable transport modes and the potential for a number of trips to be undertaken by non-car modes.
- 5.33 The multi-modal trip rates to be used in the assessment are outlined below:

Table 5.7 Multi-Modal Trip Rates

		Week	day		Friday Saturday			
	AM Peak		PM	Peak	PM Peak		Lunchtime Peak	
	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep
Person Trip Rates (per 100sqm)	2.664	0.42	0.174	2.73	0.174	2.73	0	0
Person Trips	17	3	1	17	1	17	0	0

- 5.34 As can be seen, no Friday specific rates could be acquired from TRICs. It was assumed the office development was closed on Saturday.
- 5.35 The most appropriate modal split data for office use is the 2011 Journey to Work Census data for the Beacon and Bents ward which covers the town centre area. This is identified in **Table 5.8**.

Table 5.8 Journey to Work Census Data for Beacon and Bents Ward

Mode	Mode Share
Work from home	8%
Car as driver	45.8%
Car as passenger	3.9%
Taxi	0.7%
Motorcyle	0.5%
Bus	8.5%
Metro/Train	12.3%
Walking	16.3%
Bicycle	1.5%
Other method	2.5%

5.36 This results in the following vehicle trips:

Table 5.9 Vehicle Trips - Office Element

		Week	day		Friday		Saturday	
	AM Peak		PM Peak		PM Peak		Lunchtime Peak	
	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep
Vehicle Trips Office Element	8	1	0	8	0	8	0	0

Trip Linking

- 5.37 It is assumed that the majority of people do not travel to the town centre to undertake one activity and go home. This is supported by the MRUK survey which identified that 66% of visitors travelled to South Shields for more than one reason, with 40% saying there were coming to shop at more than one location.
- To assess individual development elements in isolation is therefore considered to be inappropriate. The TRICS Research Report 05/1 Trip Attraction Rates of Developments with Multiple Retail and Leisure Uses has been reviewed to understand the interaction or linking of trips between uses. The key findings of the study are:
 - The amount of trip linking is associated with the number of sites within the development that could potentially be visited. Multi-use sites with 4 or more developments reduce on average the total number of external trips by about 20% through trip linking.
 - However, for comparable sites with a generous supply of parking the trip reduction benefits of multi-use development were, on average, lost completely.
 - 7 The generous supply of parking at multi-use developments was shown on average to generate an additional 25% more car trips to the site. It is likely that additional parking provision encourages greater car-dependency which is manifest in the substantially higher trip rates for multi-use sites that have allocated parking, compared to those that manage shared parking for the development.
- 5.39 South Shields town centre is considered to be aligned with the first finding in that it has substantially more 'developments' than four incorporating a mix of uses including retail uses (supermarkets, butchers, grocers, hair and beauty salons, jewellers, charity shops, convenience stores, chemists, financial services, betting shops etc), leisure uses (gyms, bingo hall, library, customs house, museum & art gallery), health facilities (health centre, doctors, dentists, chiropracter), food providers (hot takeaways, public houses, restaurants, cafes), residential (hotels, boarding houses, nursing homes, dwellings

- houses and apartments), places of worship and other employment uses (offices, light industry). It could therefore be argued that a reduction in trips of 20% through linking could be an under-estimate.
- 5.40 South Shields town centre is also considered to be aligned with the second finding in that it has shared parking facilities for the town centre developments. The provision of parking is constrained in line with the Council's SPD6 Parking Standards which identify the objective of 'concentrating the provision of non-operational parking in town centres and on the foreshore, in the form of strategically located car parks available for use by the general public and with good access arrangements'.
- 5.41 It is considered that if a review of the Council's parking standards were undertaken based upon the existing land uses within the town centre, the required level of parking would substantially outstrip the provision of parking spaces. This demonstrates that trip linking is already anticipated to occur within the town centre and that travel to the town centre by sustainable transport modes is already well established.
- 5.42 Given the findings of the TRICS Report it is considered justifiable to reduce new retail trips to the town centre by 20%. Although it is envisaged that some office trips will be linked, they will not be reduced to ensure robustness.

	·po . c		P =9						
		Weekday				Friday		Saturday	
	AM Peak		PMI	Peak	PM Peak		Lunchtime Peak		
	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	
Vehicle Trips Retail Element	5	5	5	5	7	8	7	8	
Vehicle Trips Following Trip	4	4	4	4	6	6	6	6	

Table 5.10 Vehicle Trips Following Trip Linking – Retail Element

Netting Off

- 5.43 The proposed Interchange development will be located on the existing site of the following:
 - → Disused office building 3 Keppel Street Anticipated to be 185m² x 3 floors = 555m²
 - ▼ Travel agents with office facilities above 5/7 Keppel Street Anticipated to be 130m² x 3 floors = 390m²:
 - Post office building containing a shop, delivery office and sorting facility Anticipated to be 350m2 of retail and 1243m2 of sorting office = 3186m2.
 - Graham House is located on William Street containing a mix of uses including a plumbing contractor, motor services and a holistic therapy centre. It is difficult to quantify the vehicle trips associated with these due to their size, however it is considered to be nominal and excluding them results in a robust assessment.
- 5.44 In summary this is considered to provide:
 - Office B1 815m²;
 - Retail A1 480m²;
 - → Distribution Centre B8 3186m²;
- 5.45 Again the TRICS database has been used to calculate trip numbers anticipated to be generated by these existing uses. The office and distribution rates have been calculated in vehicle trips. It is assumed that the office element will be closed on a Saturday. Rates for distribution centres have been

used for the Royal Mail facility, this is considered to underestimate the number of vehicle trips associated with the facility resulting in a robust assessment.

5.46 The retail element has been calculated using the person trip rates and modal split outlined in **Table 5.4** and **5.5**. The resultant vehicle trips can be seen in **Table 5.11** below.

Table 5.11 Vehicle Trips - Netting Off Existing Uses

		Week	day		Friday		Saturday	
	AM	Peak	PM I	Peak	PM	Peak	Lunchtime Peak	
	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep
Vehicle Trips Post Office	16	7	13	21	13	21	6	13
Vehicle Trips Retail Element	2	8	8	8	12	13	12	13
Vehicle Trips Office Element	6	1	1	7	1	7	0	0
Vehicle Trips to be Netted Off	24	16	21	36	25	41	18	25

5.47 Clearly a similar reduction of 20% for the linkage of trips needs to be allowed for within the existing developments. This results in the trips show in **Table 5.12**.

Table 5.12 Vehicle Trips Following Trip Linking – Existing Uses

		Week	day		Friday		Saturday	
	AM Peak		PM I	Peak	PM	Peak	Lunchtime Peak	
	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep
Vehicle Trips to be Netted Off	24	16	21	36	25	41	18	25
Vehicle Trips Following Trip Linking	19	13	17	29	20	32	14	20

One of the aims of the masterplan is to relocate businesses that are being removed to facilitate development to vacant properties in the central area. As such it is assumed that 50% of these trips will be retained within the town centre and will therefore not be included in the netting off calculation. This results in the trips shown in **Table 5.13**.

Table 5.13 Vehicle trips following Netting Off

		Weel	kday		Friday		Saturday	
	AN	l Peak	PM I	PM Peak PM		Peak	Lunchtime Peak	
	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep
Vehicle Trips Retail Element	4	4	4	4	6	6	6	6
Vehicle Trips Office Element	8	1	0	8	0	8	0	0
Vehicle Trips to be Netted Off (50%)	10	6	9	14	10	16	7	10
Vehicle Trips Retail/Office Element Following Netting Off	2	0	0	0	0	0	0	0

5.49 As can be seen from **Table 5.13**, the number of new vehicle trips generated by the proposed development is nominal.

DEVELOPMENT TRIP DISTRIBUTION

- 5.50 Distribution for the development will be undertaken using two separate methodologies.
- 5.51 Development of the Transport Interchange will see the rerouting of existing bus services. These will therefore be manually reassigned to the network based upon the routing agreed with the bus companies and Nexus. This will result in an increase in buses at some locations, but conversely a reduction in buses at other locations.
- 5.52 The additional vehicle trips associated with the retail/office element will be assigned on the wider network i.e. the three main approaches to the town centre, using existing traffic proportions taken from the recorded traffic flow data.
- 5.53 The wider network flows will be distributed as identified in **Table 5.14**.

Table 5.14 Distribution of Existing Arrivals and Departures to the Town Centre – Wider Network

	Weekday				Friday		Saturday	
	AM I	Peak	PM I	Peak	PM I	Peak	Luncht	ime Peak
	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep
Total Movements	1548	1116	1167	1994	1192	2042	1369	1994
A194 Western Approach	844 (54.5%)	470 (42.1%)	674 (57.8%)	830 (41.6%)	698 (58.6%)	868 (42.5%)	870 (63.6%)	830 (41.6%)
A1018 Westoe Road	373 (24.1%)	473 (42.4%)	312 (26.7%)	792 (39.7%)	312 (26.2%)	798 (39.1%)	312 (22.8%)	792 (39.7%)
Beach Rd to the A183	331 (21.3%)	173 (15.5%)	181 (15.5%)	372 (18.7%)	182 (15.3%)	376 (18.4%)	187 (13.7%)	372 (18.7%)

5.54 The results in the following vehicle movements.

Table 5.15 Distribution of Vehicle Trips Retail/Office Element – Wider Network

		Wee	kday		Friday		Saturday		
	AM I	Peak	PM I	PM Peak		PM Peak		Lunchtime Peak	
	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	
Total Movements	2	0	0	0	0	0	0	0	
A194 Western Approach	1	0	0	0	0	0	0	0	
A1018 Westoe Road	1	0	0	0	0	0	0	0	
Beach Rd to the A183	0	0	0	0	0	0	0	0	

Locally i.e. within the town centre, trips will be assigned to car parks based upon an analysis of the number of available parking spaces. Car parks have been grouped geographically where possible if they exist off the assessed network. Where car parks on the assessed network they have been assessed individually. **Table 5.16** summarises the outcome of this assessment. A map showing the car park locations and associated assignment methodology can be seen in **Appendix D**.

Table 5.16 Distribution of Vehicle Trips Retail/Office Element – Local Network

Car Park	Spaces	Assignment Grouping	Cumulative Spaces	Percentage of Spaces	Assignment Methodology
Salem Street	34	North	209	10.1%	All trips via Ferry Street
North Street	115	North			
Mile End Road	60	North			
Denmark Centre	120	Northeast	300	14.4%	All trips via Anderson Street
Library	40	Northeast			
Morrisons	140	Northeast			
Garden Lane	101	Garden Lane	101	4.9%	Trips from Beach Rd/A1018 via Garden Lane. Trips from A194 via Coronation Street
Oyston Street MSCP	300	Oyston Street	300	14.4%	Trips from Beach Rd/A1018 via Garden Lane. Trips from A194 via Coronation Street
Winchester Street	155	Winchester Street	155	7.5%	Trips from Beach Rd via Anderson Street. Trips from A1018/A194 via Fowler Street
ASDA	500	ASDA	500	24.1%	Trips from Beach Rd/A1018 via Garden Lane. Trips from A194 via Coronation Street
New Foodstore	300	New Foodstore	300	14.4%	All trips via Fowler Street
Mill Dam	172	West	212	10.2%	All trips via Station Road
Harton Quays	40	West			
Total	2077		2077	100%	

- 5.56 It should be noted the analysis excludes existing parking at East Street, Thomas Street, Charlotte Street, Fowler Street, St Hilda Street, Broughton Road which are lost as part of the masterplan developments.
- 5.57 It also excludes Beach Road West, Claypath Lane, Anderson Street which are considered to be outside the central town centre area.
- 5.58 The development trips for the Interchange and the retail/office development can be seen on **Drawing Refs: NEA1239/TF/09 /12** in **Appendix D**.
- 5.59 The base + development trips for the Interchange and the retail/office development can be seen on **Drawing Refs: NEA1239/TF/17 /20** in **Appendix D**.

6 Impact Assessment – Interchange Application

- 6.1 Operational capacity of the following junctions will be assessed using Junction 8 for the roundabout junctions and LINSIG3 for the signalised junction:
 - A194/Crossgate Roundabout;
 - Station Road/Coronation Street Roundabout; and
 - A194/A1018 Town Hall Signals.
- 6.2 The worst case scenarios for each individual junction will be assessed. As such the following scenarios will be modelled:
 - A194/Crossgate Roundabout:
 - → 2014 Saturday base lunchtime peak hour flows 1200 1300;
 - 2014 Saturday base lunchtime peak hour flows + Transport Interchange Application 1200 1300;
 - Station Road/Coronation Street Roundabout:
 - → 2014 Saturday base lunchtime peak hour flows 1200 1300;
 - 2014 Saturday base lunchtime peak hour flows + Transport Interchange Application 1200 1300;
 - A194/A1018 Town Hall Signals.
 - 2014 Friday evening base peak hour flows 16:45 17:45;
 - **2** 2014 Friday evening base peak hour flows + Transport Interchange Application— 16:45 17:45;
- 6.3 The full modelling output for the following scenarios can be seen in **Appendix E**.
- 6.4 It is not considered necessary to test a future year scenario, as any development impacting on these junctions will come from the town centre masterplan which has a 10 15 year roll out.

A194/CROSSGATE ROUNDABOUT

- → 2014 Saturday base lunchtime peak hour flows 1200 1300;
- The modelling results for this scenario can be seen in **Table 6.1** below. As can be seen the junction is considered to operate well within its theoretical capacity within the base scenario as demonstrated by the Ratio of Flow to Capacity (RFC). Maximum queuing at the junction is on the southbound approach to the roundabout, but this is only 1.39 pcus. Worst case delay at the junction is on the Maxwell Street arm which carries nominal traffic flows associated with the adjacent industrial developments.

Table 6.1 A194/Crossgate Roundabout - Summary of Junction Performance - Base

Arm	Queue (PCU)	Delay (s)	RFC	LOS
Station Road	1.39	7.22	0.57	А
A194 Crossgate	0.71	4.41	0.39	А
Maxwell Street	0.23	9.73	0.17	А
A194 Western Approach	1.14	3.98	0.51	А

- 2014 Saturday base lunchtime peak hour flows + Transport Interchange Application 1200 1300;
- The modelling results can be seen in **Table 6.2**. As can be seen with the addition of the traffic associated with the Interchange application i.e. rerouting of the buses and the vehicle trips associated with the retail/office element; the junction is considered to continue to operate well within its theoretical capacity as demonstrated by the RFCs. Maximum queuing at the junction remains on the southbound approach to the roundabout, but this is only 1.86 pcus. Worst case delay at the junction is on the Station Road with an average delay of approximately 12 seconds.

Table 6.2 A194/Crossgate Roundabout – Summary of Junction Performance – Base + Interchange

Arm	Queue (PCU)	Delay (s)	RFC	LOS
Station Road	1.86	8.45	0.63	А
A194 Crossgate	0.46	3.58	0.32	А
Maxwell Street	0.14	7.32	0.12	А
A194 Western Approach	0.80	3.21	0.44	А

- 6.7 This exercise demonstrates that the junction works within capacity with the addition of the traffic associated with the Interchange application i.e. rerouting of the buses and the vehicle trips associated with the retail/office element; during the worst case assessment period. No junction mitigation is considered to be required on capacity grounds.
- Nonetheless it is considered appropriate to investigate a mitigation scheme given the volume of buses using the southbound approach to the junction to exit the town.
- The proposed scheme includes a new bus lane on the southbound approach to the roundabout running a distance of approximately 100 metres. This bus lane ties into the existing flare and therefore no existing carriageway space allocated to general traffic is lost. The proposed scheme can be seen on **Drawing Ref: NEA1239/IS/GL02** in **Appendix B**.

STATION ROAD/CORONATION STREET ROUNDABOUT

- **7** 2014 Saturday base lunchtime peak hour flows − 1200 − 1300;
- The modelling results for this scenario can be seen in **Table 6.3** below. As can be seen the junction is considered to operate well within its theoretical capacity within the base scenario as demonstrated by the RFC. Maximum queuing at the junction is on the northbound approach to the roundabout, but this is only 1.48 pcus. Worst case delay at the junction is on the Station Road northbound approach to the junction.

Table 6.3 Station Road/Coronation Street Roundabout – Summary of Junction Performance - Base

Arm	Queue (PCU)	Delay (s)	RFC	LOS
Station Road	1.48	8.93	0.59	А
Commercial Road	0.31	4.27	0.24	А
Harton Quay	0.08	4.68	0.07	А
Ferry Street	0.66	4.47	0.40	А
Coronation Street	0.46	4.65	0.31	А

- 2014 Saturday base lunchtime peak hour flows + Transport Interchange Application 1200 1300:
- The modelling results for this scenario can be seen in **Table 6.4** below. As can be seen with the addition of the traffic associated with the Interchange application i.e. rerouting of the buses and the vehicle trips associated with the retail/office element; the junction is considered to operate well within its theoretical capacity as demonstrated by the RFC. Maximum queuing at the junction is on the northbound approach to the roundabout, but this is only 1.39 pcus. Worst case delay at the junction is on the Station Road northbound approach to the junction at 8.59 seconds.

Table 6.4 Station Road/Coronation Street Roundabout – Summary of Junction Performance – Base + Interchange

Arm	Queue (PCU)	Delay (s)	RFC	LOS
Station Road	1.39	8.59	0.58	А
Commercial Road	0.31	4.24	0.24	А
Harton Quay	0.07	4.64	0.07	А
Ferry Street	0.66	4.47	0.40	А
Coronation Street	0.90	6.50	0.43	А

- 6.12 This exercise demonstrates that the junction works comfortably within capacity the addition of the traffic associated with the Interchange application i.e. rerouting of the buses and the vehicle trips associated with the retail/office element; during the worst case assessment period. No junction mitigation is therefore considered to be required.
- 6.13 Nonetheless given the number of buses travelling via the junction it is considered appropriate to investigate a mitigation scheme to provide bus priority.
- The proposed scheme includes partial installation of traffic signals at the roundabout, identified to for the northern arm and the opposing eastbound circulatory carriageway. The scheme is considered to break up the flow of traffic that will conflict with bus movements from Coronation Street. Allowing Coronation Street to operate uncontrolled ensures delay does not occur during quiet periods. The proposed scheme can be seen on **Drawing Ref: NEA1239/IS/GL02** in **Appendix B**.

A194/A1018 TOWN HALL SIGNALS

- 6.15 The existing junction arrangement includes measures to facilitate bus movements travelling south on Fowler Street via this junction and on to the A1018. Given the revised bus routing arrangement, the layout of this junction will need to be revised.
- 6.16 Nonetheless for completeness, the junction has been modelled using the existing layout to understand the existing operation.
 - → 2014 Friday evening base peak hour flows 16:45 17:45;
- 6.17 As can be seen the junction is considered to operate within its theoretical capacity within the base scenario as demonstrated by the DoS. Maximum queuing at the junction is on right turn from Crossgate to Westoe Road, but this is only 9.2 pcus.
- 6.18 The modelling results for this scenario can be seen in **Table 6.5** below.

Table 6.5 A194/A1018 Town Hall Signals Existing Layout – Summary of Junction Performance – Base

Arm	DoS %	Av.Delay (s/pcu)	Mean Max Queue (pcu)
Beach Road Left	21.9	5.2	2.4
Beach Road Left	19.8	5.1	2.1
Northbound Internal Left	12.5	2.8	0.4
Northbound Internal Right	39.7	4.7	2.7
Fowler Street Ahead	45.8	47.5	3.2
Southbound Internal Ahead	33.6	15.3	4.9
Southbound Internal Right	57.0	33.2	7.2
Westoe Road Ahead/Left	55.2	38.6	6.0
Westoe Road Ahead	51.6	37.1	5.8
Crossgate Left	31.8	10.0	4.1
Crossgate Right	57.7	24.7	9.2

- 2014 Friday evening base peak hour flows + Transport Interchange Application + Mitigation − 16:45 − 17:45;
- A proposed mitigation scheme has been developed given the revised routing of buses and the desire of the masterplan to improve pedestrian movements across the junction. The proposed scheme can be seen on **Drawing Ref: NEA1239/IS/GL02** in **Appendix B.**
- 6.20 The modelling results for the revised junction layout can be seen in **Table 6.6**.

Table 6.6 A194/A1018 Town Hall Signals Proposed Layout – Summary of Junction Performance

Arm	DoS %	Av.Delay (s/pcu)	Mean Max Queue (pcu)
Beach Road Left	31.8	15.1	4.5
Beach Road Left/Right	29.5	15.5	4.1
Northbound Internal Left	29.8	7.2	1.9
Northbound Internal Right	55.8	11.2	9.7
Fowler Street Ahead/Left	4.0	48.5	0.2
Southbound Internal Ahead	40.9	13.2	1.8
Southbound Internal Right	54.4	24.2	6.1
Westoe Road Left/Ahead	48.9	34.6	4.0
Westoe Road Ahead	55.0	39.1	6.1
Crossgate Left	37.0	9.5	5.0
Crossgate Right	56.0	19.2	10.0

6.21 This junction modelling exercise demonstrates that the junction operates well with the addition of the traffic associated with the Interchange application i.e. rerouting of the buses and the vehicle trips associated with the retail/office element; during the worst case assessment period. Queuing does occur on the internal stacking links which in reality would be dispersed across the approach lanes.

7 Planned Development – The Proposed Masterplan

- 7.1 As outlined in Section 2, development of the Transport Interchange and retail/office provision is part of the wider South Shields 365 Vision Masterplan. A separate outline application is being developed for the Masterplan development.
- 7.2 It is imperative therefore that this phase of the application does not jeopardise the wider masterplan application and similarly that the effective operation of the network and the interchange is not adversely affected by the masterplan development. It is therefore considered appropriate to assess the impact of the developments simultaneously.
- 7.3 The trip generation and distribution exercise for the wider masterplan is summarised below. It should be noted that as far as possible the trip generation and distribution methodology for the masterplan replicates that outlined above. To see the detailed process and supporting information please refer to the application documents for that application.

Trip Generation

- 7.4 The trip generation for the masterplan development has been undertaken using the TRICS database. The development profile of the masterplan is subject to change, however for the purpose of the assessment the following profile will be assessed:
 - Foodstore & PFS 6039m²
 - 7 Retail 6875m²

 - Restaurant 1254m²
 - → MSCP 300 spaces
 - Cafes 697m2
- 7.5 The multi-modal trip rates and the resultant person trips used in the assessment are outlined in **Table 7.1**.

Table 7.1 Multi-Modal Trip Rates & Resultant Person Trips

		Week	day		Fr	iday	Satur	day
	AM	Peak	PM	Peak	PM	Peak	Lunchtim	e Peak
	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep
Foodstore Person Trip Rate (per 100sqm)	5.136	3.463	7.503	7.464	12.603	13.309	12.807	12.604
Retail Person Trip Rates (per 100sqm)	11.718	11.196	11.215	11.793	16.694	17.804	16.694	17.804
Cinema Person Trip Rates (per 100sqm)	0.0	0.0	4.112	2.615	4.112	2.642	7.433	7.033
Restaurant Person Trip Rates (per 100sqm)	0.0	0.0	4.571	4.696	7.372	6.057	5.029	2.057
Foodstore Person Trips	310	209	453	451	761	804	773	761
Retail Person Trips	806	770	771	811	1148	1224	1148	1224
Cinema Person Trips	0	0	144	93	144	93	261	247
Restaurant Person Trips	0	0	57	59	92	76	63	26
Total Person Trips	1426	1188	1879	1864	2907	3001	3018	3019

7.6 A range of modal splits have been used given the range of development types. Using these methodologies results in the vehicle trips outlined in **Table 7.2**.

Table 7.2 Town Centre Masterplan Vehicle Trips

		Week	day		Fr	iday	Saturday	
	AM	Peak	PM I	PM Peak		Peak	Lunchtime Peak	
	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep
Foodstore Vehicle Trips	215	152	317	301	529	567	428	425
Retail Vehicle Trips	121	115	116	122	172	184	172	184
Cinema Vehicle Trips	0	0	22	14	22	14	39	37
Restaurant Vehicle Trips	0	0	9	9	14	11	9	4
Total Vehicle Trips	336	267	462	445	736	775	649	649

7.7 A review of the potential for trip linking has been undertaken as outlined above. This results in the vehicle trips outlined in **Table 7.3**.

Table 7.3 Vehicle Trips Following Trip Linking

	Weekday					Friday		Saturday	
	AM Peak		PM	PM Peak		PM Peak		Lunchtime Peak	
	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	
Total Vehicle Trips	337	271	468	448	741	778	650	650	
Vehicle Trips Following Trip Linking	269	217	375	358	593	623	520	520	

7.8 Netting off of trips has been undertaken as outlined above. This results in the vehicle trips outlined in **Table 7.4**.

Table 7.4 Vehicle Trips – Netting Off Existing Uses

		Week	day		Fr	iday	Satur	day
	AM	Peak	PM I	Peak	PM	Peak	Lunchtime Peak	
	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep
Fowler Street to Gar	den Lane							
Vehicle Trips Retail Element	24	23	23	24	34	36	34	36
Vehicle Trips Professional Services	2	2	2	2	3	3	3	3
Vehicle Trips Ind. Unit	3	1	1	3	1	3	0	0
Vehicle Trips Factory Shop	5	11	1	5	5	5	12	10
Vehicle Trips Builders Merchant	19	17	4	8	4	8	0	0
Vehicle Trips Apartments	1	5	8	3	6	3	2	1
Vehicle Trips to be Netted Off Fowler Street	53	59	39	45	53	58	51	50
Barrington Street								
Vehicle Trips Retail Element	18	17	17	18	25	27	25	27
Vehicle Trips Professional Services	2	2	2	2	3	3	3	3
Vehicle Trips to be Netted Off Barrington Street	20	19	19	20	28	30	28	30

7.9 Clearly a similar reduction of 20% for the linkage of trips needs to be allowed for within the existing developments. This reduction can be seen in **Table 7.5**.

Table 7.5 Vehicle Trips Following Trip Linking – Existing Uses

		Weekday				iday	Saturday		
	AM Peak		PM I	PM Peak		PM Peak		Lunchtime Peak	
	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	
Vehicle Trips Following Trip Linking - Fowler Street	43	47	31	36	43	47	41	41	
Vehicle Trips Following Trip Linking – Barrington Street	16	15	15	16	22	24	22	24	

- 7.10 One of the aims of the masterplan is to relocate some of the businesses that have been removed to facilitate new developments to vacant properties in the central area. As such it is assumed that 50% of these trips will be retained within the town centre.
- 7.11 This results in the development trips shown in **Table 7.6**:

Table 7.6 Town Centre Masterplan Vehicle Trips

		Weekday				iday	Satur	day
	AM Peak		PM I	PM Peak		Peak	Lunchtime Peak	
	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep
Foodstore Vehicle Trips	172	122	253	241	423	453	342	340
Netting Off Existing Trips - Fowler Street	21	24	15	18	21	24	21	20
Foodstore Vehicle Trips Following Netting Off	151	98	238	223	402	430	322	320
Remaining Masterplan Vehicle Trips	98	95	121	118	170	169	178	180
Netting Off Existing Trips – Barrington Street	8	7	7	8	11	12	11	12
Remaining Masterplan Vehicle Trips Following Netting Off	89	88	114	110	159	157	166	168

Trip Distribution

7.12 Vehicle trips will be assigned on the wider network i.e. the three main approaches to the town centre, using existing traffic proportions taken from the recorded traffic flow data. This results in the vehicle movements identified in **Table 7.7**.

Table 7.7 Distribution of Vehicle Trips

		Wee	kday		Frie	day	Sat	urday
	AM I	Peak	PM I	Peak	PM I	Peak	Luncht	ime Peak
	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep
Foodstore Movements	151	98	238	223	402	430	322	320
A194 Western Approach	82	41	138	93	235	183	205	133
A1018 Westoe Road	36	42	64	88	105	168	73	127
Beach Rd to the A183	32	15	37	42	61	79	44	60
Remaining Masterplan Movements	89	88	114	110	159	157	166	168
A194 Western Approach	49	37	66	46	93	67	106	70
A1018 Westoe Road	22	37	30	44	42	61	38	67
Beach Rd to the A183	19	14	18	21	24	29	23	31

- 7.13 Locally i.e. within the town centre, trips have been assigned by two methods. Trips to the foodstore have been assigned directly to the car park provided. Trips to the remaining masterplan elements have been assigned to car parks based upon an analysis of the number of available parking spaces.
- 7.14 The development trips for the masterplan development can be seen on **Drawing Ref: NEA1239/TF/13 /16** in **Appendix D**.
- 7.15 The reassigned base + development trips for the Interchange, retail/office and the masterplan development can be seen on **Drawing Refs: NEA1239/TF/21 /24** in **Appendix D**.

8 Impact Assessment – Masterplan Application

- 8.1 Operational capacity of the following junctions will be assessed using Junction 8 for the roundabout junctions and LINSIG3 for the signalised junction:
 - A194/Crossgate Roundabout;
 - Station Road/Coronation Street Roundabout; and
 - A194/A1018 Town Hall Signals.
- 8.2 The worst case scenarios for each individual junction will be assessed. As such the following scenarios will be modelled:
 - A194/Crossgate Roundabout:
 - 2014 Saturday base lunchtime peak hour flows 1200 1300; and
 - 2014 Saturday base lunchtime peak hour flows + Transport Interchange Application + Masterplan 1200 1300.
 - Station Road/Coronation Street Roundabout:
 - 2014 Saturday base lunchtime peak hour flows 1200 1300; and
 - 2014 Saturday base lunchtime peak hour flows + Transport Interchange Application + Masterplan − 1200 − 1300.
 - A194/A1018 Town Hall Signals.
 - **7** 2014 Friday evening base peak hour flows − 16:45 − 17:45; and
 - 2014 Friday evening base peak hour flows + Transport Interchange Application + Masterplan 16:45 17:45;
- 8.3 The full modelling output for the following scenarios can be seen in **Appendix E**.
- 8.4 It is not considered necessary to test a future year scenario, as any development impacting on these junctions will come from the town centre masterplan which has a 10 15 year roll out.

HIGHWAY IMPROVEMENTS

- The proposed amendments to the town centre including the revised bus routing arrangement will result in fundamental changes to the operation of the highway network in the town centre. The most fundamental change is the establishment of a one way system that runs anti-clockwise through the town centre from north of Winchester Street to north of the Coronation Street/Garden Lane junction. This will be designated as a bus, taxi and cycle lane except for access by loading vehicles between 6pm and 8am.
- 8.6 The section of existing carriageway that runs from Station Road to Waterloo Square will be removed. It will be replaced with a shared space area providing greater pedestrian provision and public realm measures. Access to the Market Place will remain via Station Road. Access to East Street and Barrington Street will be via Cornwallis Street. These areas will be subject to a pedestrian zone except for access by loading vehicles between 6pm and 8am.
- 8.7 These will be supported by a number of measures at the junctions on the approaches to the town centre. These are discussed in more detail below.
- 8.8 At the A194 Western Approach/Crossgate junction it is proposed to provide a new bus lane on the southbound approach to the roundabout running a distance of approximately 100 metres. This bus lane ties into the existing flare and therefore no existing carriageway space allocated to general traffic is lost.

- 8.9 At the Station Road/Coronation Street junction it is proposed to introduce partial signalisation at the roundabout identified for the northern arm and the opposing eastbound circulatory carriageway. The scheme is considered to break up the flow of traffic that will conflict with bus movements from Coronation Street.
- 8.10 At the A1018/Cossgate/Beach Road junction the proposed scheme includes the provision of a series of traffic signal controlled junctions at Garden Lane, the Town Hall and at the access to the proposed foodstore on Fowler Street. These will be supported by localised widening on the junction approaches to maximise capacity. This is supplemented by pedestrian crossings on the key pedestrian routes.
- 8.11 In addition it is proposed to introduce shuttle running traffic signals on Garden Lane under the metro bridge. This is to allow for an improved pedestrian route to be provided under the bridge.
- 8.12 Details of masterplan changes to the town centre road network can be seen on **Drawing Refs:** NEA1239/MP/GL03, NEA1239/MP/SI03 & NEA1239/MP/SR03 included in **Appendix B**.

A194/CROSSGATE ROUNDABOUT

- **7** 2014 Saturday base lunchtime peak hour flows − 1200 − 1300;
- 8.13 The modelling results for this scenario can be seen in **Table 8.1** below. As can be seen the junction is considered to operate well within its theoretical capacity within the base scenario as demonstrated by the Ratio of Flow to Capacity (RFC). Maximum queuing at the junction is on the southbound approach to the roundabout, but this is only 1.39 pcus. Worst case delay at the junction is on the Maxwell Street arm which carries nominal traffic flows associated with the adjacent industrial developments.

Table 8.1 A194/Crossgate Roundabout – Summary of Junction Performance - Base

Arm	Queue (PCU)	Delay (s)	RFC	LOS
Station Road	1.39	7.22	0.57	А
A194 Crossgate	0.71	4.41	0.39	А
Maxwell Street	0.23	9.73	0.17	А
A194 Western Approach	1.14	3.98	0.51	А

- 2014 Saturday base lunchtime peak hour flows + Transport Interchange Application + Masterplan 1200 1300.
- 8.14 The modelling results can be seen in **Table 8.2**. As can be seen with the addition of the traffic associated with the application i.e. rerouting of the buses and vehicle trips associated with the masterplan; the junction is considered to continue to operate well within its theoretical capacity as demonstrated by the RFCs. Maximum queuing at the junction remains on the southbound approach to the roundabout, but this is only 3.85 pcus. Worst case delay at the junction is on the Station Road with an average delay of approximately 16 seconds.

Table 8.2 A194/Crossgate Roundabout – Summary of Junction Performance – Base + Interchange + Masterplan

Arm	Queue (PCU)	Delay (s)	RFC	LOS
Station Road	3.85	16.38	0.78	С
A194 Crossgate	0.78	4.44	0.44	А
Maxwell Street	0.18	9.42	0.15	А
A194 Western Approach	1.47	4.42	0.59	А

- 8.15 This exercise demonstrates that the junction works within capacity with full development during the worst case assessment period. No junction mitigation is considered to be required on capacity grounds.
 - → 2014 Saturday base lunchtime peak hour flows + Transport Interchange Application + Masterplan + Mitigation 1200 1300.
- 8.16 Nonetheless it is considered appropriate to investigate a mitigation scheme given the volume of buses using the southbound approach to the junction to exit the town.
- 8.17 The proposed scheme includes a new bus lane on the southbound approach to the roundabout running a distance of approximately 100 metres. This bus lane ties into the existing flare and therefore no existing carriageway space allocated to general traffic is lost. It is not possible to model this scenario within the Junctions 8 package however the scheme is considered to provide priority for buses that can bypass queuing on the approach to the junction. The proposed scheme can be seen on **Drawing Ref: NEA1239/MP/GL03** in **Appendix B**.

STATION ROAD/CORONATION STREET ROUNDABOUT

- **7** 2014 Saturday base lunchtime peak hour flows − 1200 − 1300;
- 8.18 The modelling results for this scenario can be seen in **Table 8.3** below. As can be seen the junction is considered to operate well within its theoretical capacity within the base scenario as demonstrated by the RFC. Maximum queuing at the junction is on the northbound approach to the roundabout, but this is only 1.48 pcus. Worst case delay at the junction is on the Station Road northbound approach to the junction.

Table 8.3 Station Road/Coronation Street Roundabout – Summary of Junction Performance - Base

Arm	Queue (PCU)	Delay (s)	RFC	LOS
Station Road	1.48	8.93	0.59	А
Commercial Road	0.31	4.27	0.24	А
Harton Quay	0.08	4.68	0.07	А
Ferry Street	0.66	4.47	0.40	А
Coronation Street	0.46	4.65	0.31	А

- 2014 Saturday base lunchtime peak hour flows + Transport Interchange Application + Masterplan 1200 1300.
- 8.19 The modelling results for this scenario can be seen in **Table 8.4** below. As can be seen with the addition of the traffic associated with the application i.e. rerouting of the buses and the vehicle trips associated with the masterplan; the junction is considered to operate well within its theoretical capacity

as demonstrated by the RFC. Maximum queuing at the junction is on the northbound approach to the roundabout, but this is only 1.64 pcus. Worst case delay at the junction is on the Station Road northbound approach to the junction at 9.33 seconds.

Table 8.4 Station Road/Coronation Street Roundabout – Summary of Junction Performance – Base + Interchange + Masterplan

Arm	Queue (PCU)	Delay (s)	RFC	LOS
Station Road	1.64	9.33	0.62	А
Commercial Road	0.31	4.25	0.24	А
Harton Quay	0.10	4.70	0.09	А
Ferry Street	0.61	4.50	0.38	А
Coronation Street	1.00	6.61	0.46	А

- 8.20 This exercise demonstrates that the junction works comfortably within capacity with full development during the worst case assessment period. No junction mitigation is therefore considered to be required.
 - → 2014 Saturday base lunchtime peak hour flows + Transport Interchange Application + Masterplan + Mitigation 1200 1300.
- 8.21 Nonetheless given the number of buses travelling via the junction it is considered appropriate to investigate a mitigation scheme.
- 8.22 The proposed scheme includes partial installation of traffic signals at the roundabout, identified to for the northern arm and the opposing eastbound circulatory carriageway. The scheme is considered to break up the flow of traffic that will conflict with bus movements from Coronation Street at busy periods. Allowing Coronation Street to operate uncontrolled ensures delay does not occur during quiet periods. The proposed scheme can be seen on **Drawing Ref: NEA1239/MP/GL03** in **Appendix B**.
- 8.23 As can be seen the junction is considered to operate well within its theoretical capacity within the scenario as demonstrated by the Degree of Saturation (DoS). The modelling results for the revised junction layout can be seen in **Table 8.5**.

Table 8.5 Station Road/Coronation Street Partial Signalised Roundabout – Summary of Junction Performance – Base + Interchange + Masterplan + Mitigation

Arm	DoS %	Av.Delay (s/pcu)	Mean Max Queue (pcu)
Coronation Street	55.8	7.3	4.5
Station Road	70.3	6.6	5.6
Commercial Road	40.6	4.4	0.4
Harton Quay	16.7	4.9	0.3
Ferry Street	66.7	20.6	8.3
Eastbound Internal Ahead	43.1	15.4	4.4
Eastbound Internal Right	10.4	13.2	0.9

A194/A1018 TOWN HALL SIGNALS

- 8.24 The existing junction arrangement includes measures to facilitate bus movements travelling south on Fowler Street via this junction and on to the A1018. Given the revised bus routing arrangement, the layout of this junction will need to be revised.
- 8.25 Nonetheless for completeness, the junction has been modelled using the existing layout to understand the impact that full development would have.
 - **7** 2014 Friday evening base peak hour flows − 16:45 − 17:45;
- 8.26 As can be seen the junction is considered to operate within its theoretical capacity within the base scenario as demonstrated by the DoS. Maximum queuing at the junction is on right turn from Crossgate to Westoe Road, but this is only 9.9 pcus.
- 8.27 The modelling results for this scenario can be seen in **Table 8.6** below.

Table 8.6 A194/A1018 Town Hall Signals Existing Layout – Summary of Junction Performance – Base

Arm	DoS %	Av.Delay (s/pcu)	Mean Max Queue (pcu)
Beach Road Left	21.9	5.2	2.4
Beach Road Left	19.8	5.1	2.1
Northbound Internal Left	12.5	2.8	0.4
Northbound Internal Right	39.7	4.7	2.7
Fowler Street Ahead	45.8	47.5	3.2
Southbound Internal Ahead	33.6	15.3	4.9
Southbound Internal Right	57.0	33.2	7.2
Westoe Road Ahead/Left	55.2	38.6	6.0
Westoe Road Ahead	51.6	37.1	5.8
Crossgate Left	31.8	10.0	4.1
Crossgate Right	57.7	24.7	9.2

- 2014 Friday evening base peak hour flows + Transport Interchange Application + Masterplan − 16:45 − 17:45;
- 8.28 As can be seen with the addition of the development traffic the junction demonstrates links that operate just in excess of capacity. As such minor queuing and delay occurs. The modelling results can be seen in **Table 8.7**.

Table 8.7 A194/A1018 Town Hall Signals Existing Layout – Summary of Junction Performance – Base + Interchange + Masterplan

Arm	DoS %	Av.Delay (s/pcu)	Mean Max Queue (pcu)
Beach Road Left	28.5	11.5	4.0
Beach Road Left	25.8	11.2	3.5
Northbound Internal Left	66.9	15.2	11.1
Northbound Internal Right	54.6	13.8	9.6
Fowler Street Ahead	77.1	42.3	11.4
Southbound Internal Ahead	28.8	8.8	1.7
Southbound Internal Right	91.6	63.4	17.6
Westoe Road Ahead/Left	85.1	53.8	12.7
Westoe Road Ahead	48.5	34.4	5.8
Crossgate Left	67.5	16.9	12.6
Crossgate Right	93.3	62.6	19.4

- 2014 Friday evening base peak hour flows + Transport Interchange Application + Masterplan + Mitigation 16:45 17:45;
- 8.29 A proposed mitigation scheme has been developed given the revised routing of buses, the need for additional junction capacity, and the desire of the masterplan to improve pedestrian movements across the junction. The proposed scheme can be seen on **Drawing Ref: NEA1239/MP/GL03** in **Appendix B.**
- 8.30 The modelling results for the revised junction layout can be seen in **Table 8.8**.

Table 8.8 A194/A1018 Town Hall Signals Proposed Layout – Summary of Junction Performance

Arm	DoS %	Av.Delay (s/pcu)	Mean Max Queue (pcu)
Beach Road Left	39.4	21.2	5.6
Beach Road Left/Right	56.0	27.5	7.1
Northbound Internal Left	80.8	27.2	12.5
Northbound Internal Right	71.1	22.4	10.0
Fowler Street Ahead/Left	75.6	55.4	7.8
Fowler Street Ahead	71.0	52.1	7.0
Southbound Internal Ahead	46.7	12.0	7.4
Southbound Internal Right	86.5	40.8	16.2
Westoe Road Left/Ahead	61.8	32.0	7.0
Westoe Road Ahead	43.6	30.9	5.5
Crossgate Left	68.3	18.2	13.0
Crossgate Right	67.6	28.7	7.8

- 8.31 This junction modelling exercise demonstrates that the junction operates well with full development. Queuing does occur on the internal stacking links which in reality would be dispersed across the approach lanes.
- 8.32 It should be noted that to ensure a robust assessment all trips to the Foodstore are considered to be new to the network.
- 8.33 The proposed junction mitigation scheme is therefore considered to be a robust design to accommodate future development aspirations.

A194/A1018 SIGNALS WITH GARDEN LANE AND FOODSTORE ACCESS

- 8.34 Further testing has been undertaken to consider the interaction of this junction with the adjacent junctions of Garden Lane and the proposed foodstore. Both adjacent junctions will be signalised in this scenario.
- 8.35 The Garden Lane junction includes for an indicative left turn green arrow on the southbound Garden Lane arm to run against the westbound flow on Crossgate. This is the best way to maximise these two movements. A full pedestrian phase is included in the phasing. The proposed scheme can be seen on Drawing Ref: NEA1239/MP/GL03 in Appendix B.
- 8.36 The modelling results can be seen in **Table 8.9**.

Table 8.9 A194/A1018, Garden Lane, Foodstore Access Signalised Layout – Summary of Junction Performance

Arm	DoS %	Av.Delay (s/pcu)	Mean Max Queue (pcu)
	A194/A	1018 Town Hall Junction	
Beach Road Left	40.4	21.3	5.7
Beach Road Left/Right	77.5	39.1	8.3
Northbound Internal Left	78.2	28.3	16.6
Northbound Internal Right	68.8	24.0	9.3
Fowler Street Ahead/Left	75.6	48.9	6.7
Fowler Street Ahead	70.7	45.6	5.9
Southbound Internal Ahead	43.0	6.2	6.6
Southbound Internal Right	76.4	22.2	8.9
Westoe Road Left/Ahead	60.0	30.7	6.8
Westoe Road Ahead	42.1	29.7	5.4
Crossgate Left	65.7	11.6	12.9
Crossgate Right	72.3	29.9	8.6
	Food	Istore Access Junction	
Fowler Street Left	30.8	1.8	0.2
Fowler St Ahead	50.9	25.9	3.6
Foodstore Right	51.5	12.2	7.3
	Ga	arden Lane Junction	

Garden Lane	69.0	41.0	7.1
Crossgate West	55.9	7.9	3.4
Crossgate East Ahead/Left	67.9	24.3	12.8
Crossgate Ahead	46.3	19.4	7.6

- 8.37 The junction modelling exercise is considered to demonstrate that the network of junctions operates well with full development. Queuing does occur but this is not considered to be substantial given that this is the worst case scenario.
- 8.38 Again it should be noted that to ensure a robust assessment all trips to the Foodstore are considered to be new to the network.
- 8.39 The proposed junction mitigation scheme is therefore considered to be a robust design to accommodate future development aspirations.

9 Conclusion

- 9.1 JMP have been appointed by MUSE and South Tyneside Council, to carry out a Transport Assessment and accompanying Travel Plan for a proposed development in South Shields town centre, South Tyneside. The development consists of:
 - Proposed development of a new Interchange incorporating improved facilities for bus and metro passengers;
 - A travel shop and staff/customer amenities;
 - 293m² of retail development;
 - 620m2 of office development;
 - A pickup/drop off area for short term parking;
 - A loading bay
 - Taxi rank; and
 - Public realm improvements.
- 9.2 The assessment has gone through the following stages:
 - Existing transport conditions;
 - Collision analysis;
 - Trip generation and distribution; and
 - Impact assessment.
- 9.3 Operational capacity of the following junctions have been assessed:
 - A194/Crossgate Roundabout
 - Station Road/Coronation Street Roundabout
 - A194/A1018 Town Hall Signals
- 9.4 The assessment is considered to show all junctions continue to operate effectively with addition of the Interchange application i.e. rerouting of the buses and the vehicle trips associated with the retail/office element; during the worst case assessment periods.
- 9.5 Nonetheless given the number of buses travelling through these junctions it is considered appropriate to develop mitigation schemes to provide bus priority.
- 9.6 Further junction modelling demonstrates that the mitigated junctions operate well with addition of full development as identified in the 365 Masterplan.
- 9.7 It should be noted that the latter assessments are considered to be robust as all trips to the Foodstore are considered to be new to the network.
- 9.8 The proposed junction mitigation schemes are therefore considered to result in robust designs to accommodate future development aspirations.

Appendix A

COLLISION DATA

South Shields Town Centre Accidents

Yea	r Month	Acc. Ref	No. of Vehs	No. of Cas	Severity	Location_Description	General_Description	CF_1	CF 1 Veh/Ca	CF1 Ref	CF1 Conf	CF2	CF2 Veh/Ca s	CF2 Ref	CF2 Conf	CF3		F3 CF3 ef Conf		CF4 Veh/C		CF4 Conf	CF5		CF5 CF5 Ref Conf
12	1	8512	3	1	Slight	WESTOE ROAD J/W CROSSGATE SOUTH SHIELDS	V1, V2 AND V3 TRAV NORTH WEST ON WESTOE ROAD TURNING LEFT AT THE TRAFFIC LIGHTS J/W CORSSGATE. AS THE TRAFFIC SLOWED V1 HAS COLLIDED WITH THE REAR OF V2 PUSHING V2 INTO THE REAR OF V3.	Failed to judge other person's path or speed	v	1	А	Failed to look properly	v	1	А	Sudden braking	v	2 A							
12	1	52912	1	1	Slight	FOWLER STREET J/W PRINCE GEROGES SQUARE NR YORKSHIRE BANK, SOUTH SHIELDS	THE PEDESTRIAN WAS WALKING ON THE EDGE OF THE KERB IN A SOUTH EAST DIRECTION. VI A PSV SLOWS DUE TO BUS STOP AND CLIPS THE PEDESTRIAN. IT IS BELIEVED THE DRIVER DID NOT KNOW HE HAS HIT THE PED.	Poor turn or manoeuvre	v	1	В	Passing too close to cyclist, horse rider or pedestrian	v	1	В										
14	2	62714	1	1	Slight	FOWLER STREET J/W BEACH ROAD SOUTH SHIELDS	V1 TRAV SOUTH ON FOWLER ST ONTO BEACH RD BRAKES SHARPLY DUE TO VEHICLE COMING THROUGH TRAFFIC LIGHTS	Failed to look properly	v	1	В	Sudden braking	v	1	А										
14	2	92614	2	1	Slight	CROSSGATE J/W PETROL STATION SOUTH SHIELDS	V1 TRAV SW ON CROSSGATE TURNING RIGHT ONTO PETROL FORECOURT ACROSS THE PATH OF V2 TRAV NE ON CROSSGATE	Failed to look properly	v	1	Α	Failed to judge other person's path or speed	v	1	А										
12	2	98412	2	1	Slight	FERRY STREET J/W CHURCH WAY SOUTH SHIELDS	V2 TRAV SOUTH ON FERRY STREET ENTERS ROUNDABOUT J/W CHURCH WAY. VI ENTERS ROUNDABOUT FROM CHURCH WAY THEN STOPS. THIS HAS MADE V2 BRAKE THINKING V1 WAS GOING TO HIT V2 AND THE RIDER FALLS FROM BIKE.	Failed to look properly	٧	1	В														
14	2	104814	2	1	Slight	BEACH ROAD J/W ANDERSON STREET SOUTH SHIELDS	V1 TRAV WEST ON BEACH RD ENTERS R/A J/W ANDERSON ST COLLIDING WITH V2 TRAV SOUTH ON ANDERSON ST OVER J/W BEACH RD	Junction overshoot	v	1	А	Failed to look properly	v	1	А										
13	3	132613	1	2	Slight	MARKET PLACE O/S HERONS SOUTH SHIELDS	V1 PARKED ON MARKET PLACE BEGINS REVERSING AND COLLIDES WITH THE PEDESTRIANS CROSSING THE ROAD TO THE REAR OF V1	Failed to look properly	v	1	А														
1	3	135113	1	1	Slight	FOWLER STREET J/W BEACH ROAD SOUTH SHIELDS	V1 TRAV SOUTH ON FOWLER ST WHEN ENTERING BEACH RD MOVES TO THE RIGHT TO AVOID VEHICLE TO THE N/S AND BRAKES. PASSENGER ON BOARD FALLS FORWARD ONTO SEAT IN FRONT	Swerved	v	1	А	Sudden braking	v	1	А										
14	3	139514	2	1	Slight	WESTOE ROAD J/W BEACH ROAD SOUTH SHIELDS	V1 TRAV NORTH ON WESTOE RD GOES THROUGH TRAFFIC LIGHT JUNCTION ONTO BEACH RD COLLIDES WITH V2 TRAV SOUTH ON BEACH RD. V1 CONTRAVENED RED TRAFFIC LIGHT	Failed to look properly	v	1	А	Poor turn or manoeuvre	v	1	В										
13	2	161413	2	1	Slight	FERRY STREET J/W CHURCH WAY SOUTH SHIELDS	V1 TRAV NORTH ON FERRY ST BRAKED AT J/W CHURCH WAY, V2 TRAV BEHIND FAILED TO STOP IN TIME AND COLLIDED WITH THE REAR OF V1	Failed to judge other person's path or speed	v	1	В														
13	4	162913	1	1	Serious	MILE END ROAD REAR OF CHARLESTON COFFEE HOUSE, SOUTH SHIELDS	V1 REVERSES ON REAR LANE OF MILE END ROAD COLLIDES WITH PEDESTRIAN WHO WAS COLLECTING WHEELIE BINS. PEDESTRIAN IS TRAPPED BETWEEN WAGON AND WALL	Poor turn or manoeuvre	v	1	В	Failed to look properly	v	1	В	Failed to look properly	С	1 B	Careless, reckless or ir a hurry	С	1	В			
12	3	171712	2	1	Slight	PIER PARADE J/W LAWE ROAD SOUTH SHIELDS	V1 TRAV SOUTH EAST ON LAWE ROAD PULLS OUT INTO PIER PARADE FAILING TO SEE V2 A PEDAL CYCLIST TRAV NORTH EAST ALREADY ON PIER PARADE.	Disobeyed "Give Way" or "Stop" sign or markings	v	1	А	Failed to look properly	v	1	А	Failed to judge other person's path or speed	v	1 B	Careless, reckless or ir a hurry	v	1	В			
15	3	172915	4	1	Slight	COMMERCIAL ROAD J/W STATION ROAD SOUTH SHIELDS	V1 TRAV NORTH EAST ON COMMERCIAL RD SEES V4 (POLICE) TURN AROUND. V1 CONTINUES TO MAKE OFF. V2 V3 TRAV EAST TO WEST AS V1 HEADS TOWARD THEM V2 IS FORCED TO BRAKE AND STOPS. V3 COLLIDES WITH THE REAR OF V2.																		
12	4	184612	1	1	Slight	RIVER DRIVE SOUTH OF ROUNDABOUT J/W B1303 STATION APPROACH, SOUTH SHIELDS	V1 TRAV SOUTH EAST ON RIVER DRIVE WHEN V1 HAS COLLIDED WITH A PEDESTRIAN CROSSING THE ROAD FROM V1 OFFSIDE. V1 FAILED TO STOP.	Failed to look properly	С	1	А	Failed to judge vehicle's path or speed	С	1	А	Careless, reckless or in a hurry	С	1 A	Failed to lool properly	v	1	A re	Careless, eckless or in a hurry	V	1 B
12	3	189412	2	3	Slight	WESTOE ROAD J/W CROSSGATE SOUTH SHIELDS	V2 TRAV SOUTH EAST ON WESTOE ROAD TOWARDS THE J/W CROSSGATE AND STOPPED AT THE TRAFFIC LIGHTS. V1 TRAV BEHIND V2 FAILED TO STOP THINKING THE TRAFFIC LIGHTS WERE GREEN AND COLLIDED WITH THE REAR OF V2.	Failed to look properly	v	2	А														
12	3	195812	2	1	Slight	ROMAN ROAD SOUTH SHIELDS	V2 A PEDAL CYCLE TRAV SOUTH EAST ON ROMAN ROAD TOWARDS OCEAN ROAD HAVING JUST COME FROM A REAR LANE. V1 TRAV NORTH WEST ON ROMAN RD WHEN THE PEDAL CYCLE HAS COLLIDED WITH THE FRONT OF V1.																		
12	4	210012	2	1	Slight	BEACH ROAD J/W FOWLER STREET SOUTH SHIELDS	V1 TRAV NORTH WEST ON BEACH ROAD WHEN DRIVER HAS FAILED TO PAY ATTENTION AND HAS COLLIDED WITH THE REAR OF V2 STATIONARY WAITING AT TRAFFIC LIGHTS J/W FOWLER STREET.	Careless, reckless or in a hurry	v	1	А	Fatigue	v	1	В										
13	5	229813	3	1	Slight	ANDERSON STREET J/W BEACH ROAD SOUTH SHIELDS	V1 V2 V3 TRAV NORTH ON ANDERSON ST APPROACHING R/A J/W BEACH RD. V1 MISJUDGES THE SPEED OF V2 AHEAD, V1 COLLIDES WITH V2, V2 FORCED INTO V3	Failed to judge other person's path or speed	v	1	А														
13	5	234613	1	1	Slight	KEPPEL STREET SOUTH SHIELDS	V1 TRAV NE ON KEPPEL ST DRIVER BRAKES TO ALLOW PEDESTRIAN TO CROSS ON ZEBRA CROSSING. A STANDING PASSENGER ON BOARD V1 FALLS FORWARD	Other	С	1	В														
12	5	258312	1	1	Serious	CORONATION STREET SOUTH SHIELDS	V1 TRAV NORTH WEST ON CORONATION STREET TOWARDS ZEBRA CROSSING WHEN THE PEDESTRIAN HAS RAN ACROSS THE ROAD FROM THE DRIVERS OFFSIDE.	Crossing road masked by stationary or parked vehicle	С	1	А	Failed to look properly	С	1	А	Wrong use of pedestrian crossing facility	с	1 A							
14	5	298514	2	2	Slight	SEA VIEW TERRACE J/W BEACH ROAD SOUTH SHIELDS	V2 TRAV SE ON SOUTH VIEW TERR WAITING IN TRAFFIC, V1 PULLS OUT OF PARKING SPACE COLLDING WITH V2	Failed to look properly	v	1	А														
13	6	301313	3	1	Slight	BARING STREET O/S NO 26 SOUTH SHIELDS	V1 TRAV NORTH ON BARING ST, V2 REVERSING ON BARING ST INTO A PARKING SPACE AT THE SIDE OF THE ROAD. V1 BELIEVES V2 HAS FINISHED PARKING AND DRIVES PASSED V2. V2 MOVES FORWARD WING MIRROR HITS V1 RIDER FALLS FROM V1 V1 COLLIDES WITH V3 PARKED UNATTENDED	Failed to judge other person's path or speed	v	1	А	Learner or inexperienced driver/rider	v	1	В										
13	6	311513	1	1	Slight	COSTON DRIVE J/W CAR PARK SOUTH SHIELDS	V1 TRAV NORTH EXITING CAR PARK AS PEDESTRIANS CROSSING FROM N/S V1 COLLIDES WITH PEDESTRIAN	Failed to look properly	v	1	А	Poor turn or manoeuvre	v	1	А	Careless, reckless or in a hurry	v	1 A							
14	6	314614	1	1	Slight	FOWLER STREET NR J/W KEPPEL ST, SOUTH SHIELDS	V1 TRAV NORTH ON FOWLER ST ELDERLY PEDESTRIAN WALKS OUT IN FRONT OF V1. DRIVER BRAKES CAUSING PASSENGER TO FALL	Animal or object in carriageway	v	1	А	Careless, reckless or in a hurry	с	1	А	Failed to look properly	С	1 A							
12	6	316912	2	1	Slight	GEORGE SCOTT STREET J/W HARRY NEILSON STREET SOUTH SHIELDS	V1 TRAV SE ON GEORGE SCOTT ST BACK LANE, COLLIDES WITH V2 TRAV SW FROM GEORGE SCOTT ST ONTO BACK LANE	Travelling too fast for conditions	v	1	А	Buildings, road signs, street furniture	v	2	А							\downarrow			
12	6	326612	2	1	Slight	ROMAN ROAD J/W OCEAN ROAD REAR LANE SOUTH SHIELDS	V2 TRAV S ON ROMAN RD WHEN V1 PULLS OUT OF REAR LANE OF OCEAN RD INTO PATH OF V2 CAUSING COLLISION	Careless, reckless or in a hurry	v	1	А	Failed to look properly	v	1	А	Pond Image !-						\downarrow			
13	7	349013	1	2	Slight	RIVER DRIVE SOUTH SHIELDS	V1 TRAV SOUTH ON RIVER DRIVE FROE OVER THE MIDDLE OF THE CARRIAGEWAY SPEED CUSHION ON THE N/S. PEDESTRIANS WALKING SOUTHBOUND ARE FORCED CLOSER TO THE ROADWAY BY VERGE WORKS. V1 HITS PEDESTRIANS THEN DRIVES OFF	Temporary road layout (eg. contraflow)	v	1	А	Road layout (eg. bend, hill, narrow carriageway)	С	1	А	Road layout (eg. bend, hill, narrow carriageway)	С	2 A				\downarrow			
14	6	352014	2	1	Slight	BEACH ROAD J/W SEA VIEW TERRACE SOUTH SHIELDS	V1 TRAV WEST ON BEACH RD TURNS RIGHT INTO BEACH TERRACE COLLIDES WITH V2 TRAV WEST ON BEACH RD.RIDER FALLS FROM V2 AND ROLLS OVER THE BONNET OF V1	Failed to look properly	v	1	А	Failed to judge other person's path or speed	v	1	В	Distraction in vehicle	v	1 B							



South Shields Town Centre Accidents

			1			T				,															
13	7	357013	2	1	Slight	OCEAN ROAD J/W SHORTRIDGE STREET SOUTH SHIELDS	V1 TRAV EAST ON OCEAN RD TURNS RIGHT ONTO SHORTRIDGE ST COLLIDES WITH V2 TRAV WEST ON OCEAN RD	Poor turn or manoeuvre	V	1	А	Failed to look properly	v	1	Α .	Failed to judge other person's path or speed	v	1	В						
14	6	360314	2	2	Slight	FRANKLIN STREET SOUTH SHIELDS	V2 PARKED ON FRANKLIN ST WITH DRIVERS DOOR OPEN, V1 TRAV NORTH ON FRANKLIN ST COLLIDES WITH V2'S DOOR	Failed to look properly	V	1	В	Distraction in vehicle	٧	1	В	Careless, reckless or in a hurry	v	1	В	Stationary or parked vehicle(s)	V 1	В			
12	5	363212	2	1	Slight	BEACH ROAD J/W WESTOE ROAD SOUTH SHIELDS	V2 A MOTORISED SCOOTER WAS TRAY NORTH WEST ACROSS BEACH ROAD WHEN V1 TRAY SOUTH WEST HAS CLIPPED THE REAR OF THE SCOOTER. V1 DID NOT STOP.	Sudden braking	v	1	А	Aggressive driving	>	1	Α .	Careless, reckless or in a hurry	v	1	А						
12	7	372212	1	1	Slight	MILE END ROAD NEAREST JUNCTION COSTON DRIVE SOUTH SHIELDS	PEDESTRIAN STANDING IN CARRIAGEWAY WITH BACK TO TRAFFIC, V1 TRAV PASSED PEDESTRIAN SLOWLY, PEDESTRIAN STEPS BACK INTO V1 AND FALLS TO GROUND	Dangerous action in carriageway (eg. playing)	С	1	А	Impaired by alcohol	С	1	A										
12	7	381112	1	1	Slight	CORONATION STREET SOUTH SHIELDS	V1 TRAV EAST ON CORONATION ST STOPS AT ZEBRA CROSSING MOVES OFF THEN BRAKES SUDDENLY DUE TO VEHICLE AHEAD BRAKING. PASSENGER WHO HAD STOOD UP EARLY FOR NEXT STOP WAS THROWN FORWARD	Failed to judge other person's path or speed	v	1	В	Sudden braking	٧	1	А										
13	7	381313	2	1	Slight	ANDERSON STREET J/W BEACH ROAD SOUTH SHIELDS	V1 TRAV SOUTH ON ANDERSON ST ENTERS R/A J/W BEACH RD TURNING LEFT COLLIDES WITH V2 TRAV EAST ON BEACH RD	Dazzling sun	v	1	А	Failed to look properly	٧	1	В										
13	5	381713	1	1	Slight	ANDERSON STREET J/W OCEAN ROAD SOUTH SHIELDS	V1 TRAV WEST ON OCEAN RD TOWARD R/A J/W ANDERSON ST BRAKES DUE TO TRAFFIC AHEAD SLOWING. PASSENGER FALLS FROM SEAT OF V1	Other	С	1	А														
12	7	394612	2	1	Slight	OCEAN ROAD J/W WOODBINE STREET SOUTH SHIELDS	V2 TRAV ON OCEAN RD BRAKED SUUDDENLY CAUSING V1 TRAV BEHIND TO BRAKE V1 TOOTS HORN AND FOLLOWS V2 ONTO WOODBINE ST. V1 COLLIDES WITH REAR OF V2. V1 ATTEMPTS TO LEAVE THE SCENE																		
12	7	403512	2	1	Slight	WESTERN APPROACH J/W CROSSGATE SOUTH SHIELDS	V2 TRAV SE ON A194 R/A WESTERN APPROACH J/W CROSSGATE,V1 TRAV BEHIND V1 HITS REAR WHEEL OF V2 CAUSING RIDER TO FALL FROM CYCLE	Failed to judge other person's path or speed	v	1	В														
13	8	407613	1	1	Slight	KEPPEL STREET SOUTH SHIELDS	V1 TRAV EAST ON KEPPELST PEDESTRIAN WALKS OUT IN FRONT OF V1	Failed to look properly	С	1	А	Careless, reckless or in a hurry	C	1	В										
14	7	411114	1	1	Slight	FOWLER STREET SOUTH SHIELDS	V1 TRAV SOUTH ON FOWLER ST PULLS INTO A BUS STOP STANDING PASSENGER FALLS OVER WHEN BUS STOPS	Sudden braking	v	1	В														
13	9	480213	1	1	Slight	FOWLER STREET SOUTH SHIELDS	V1 TRAV SOUTH ON FOWLER ST PASSENGER LOSES BALANCE AND FALLS TO THE FLOOR	Failed to look properly	С	1	А	Disability or illness, mental or physical	С	1	В										
12	9	506512	1	1	Slight	KEPPEL STREET SOUTH SHIELDS	V1 TRAV WEST ON KEPPEL ST PEDESTRIAN RUNS OUT ONTO ZEBRA CROSSING AND COLLIDES WITH THE REAR OFFSIDE OF V1	Wrong use of pedestrian crossing facility	С	1	А	Careless, reckless or in a hurry	С	1	А	Failed to look properly	С	1	A	Slippery road (due to weather)	V 1	В			
14	80	507814	1	1	Slight	CHAPTER ROW SOUTH SHIELDS	V1 TRAV NE ON CHAPTER ROW APPROACHING BUS STOP. PASSENGER STANDS UP ON BUS BEFORE IT BECOMES STATIONARY, PASSENGER REACHES FOR POLE TO HOLD ONTO MISSES POLE AND FALLS																		
13	9	517613	1	1	Slight	CROSSGATE J/W GARDEN LANE SOUTH SHIELDS	V1 TRAV NE ON CROSSGATE PASSENGER ALERTS DRIVER THEY WISH TO ALIGHT V1 COMES TO A CONTROLLED STOP PASSENGER BECOMES UNBALANCED CAUSING INJURY	Sudden braking	v	1	В														
13	9	519013	2	1	Serious	OCEAN ROAD J/W ANDERSON STREET SOUTH SHIELDS	V1 TRAV NORTH ON ANDERSON ST ENTERS R/A J/W OCEAN RD FOR U/K REASONS CROSSES OVER TO ONCOMING LANE COLLIDES WITH V2 TRAV WEST OVER R/A	Careless, reckless or in a hurry	V	1	А	Illegal turn or direction of travel	٧	1	A \	isobeyed "Give Way" or "Stop" ign or markings	<	1	A						
12	9	523012	2	1	Slight	ANDERSON STREET J/W COSTON DRIVE SOUTH SHIELDS	V2 TRAY NORTH ON ANDERSON ST OVER R/A J/W ANDERSON ST NORTH, V1 CROSSES ROAD TRAY WEST ACROSS JUNCTION. V2 BRAKES BUT V1 GLANCED OFF FRONT N/S OF V2	Careless, reckless or in a hurry	v	1	А	Learner or inexperienced driver/rider	>	1	A	Cyclist entering road from pavement	v	1	Δ.	Road layout (eg. bend, vinding road, hill crest)	V 2	В			
14	9	549714	2	1	Slight	STATION ROAD NEAR J/W COMMERCIAL ROAD SOUTH SHIELDS	V2 TRAV SOUTH ON STATION RD V1 DRIVES PAST COLLIDING WITH V2	Road layout (eg. bend, winding road, hill crest)	V	1	В	Careless, reckless or in a hurry	٧	1	В										
13	10	566713	2	2	Slight	GARDEN LANE J/W CORONATION STREET SOUTH SHIELDS	V1 TRAV NORTH ON GARDEN LANE ENTERS J/W CORONATION ST INTO THE PATH OF V2 TRAV SOUTH ON CORONATION ST	Failed to look properly	v	1	А	Careless, reckless or in a hurry	>	1	В										
14	10	578614	2	3	Slight	CROSSGATE J/W WESTOE ROAD SOUTH SHIELDS	V2 TRAV SOUTH ON WESTOE RD. V1 OVERTAKES TO O/S THEN TURNS LEFT ACROSS THE PATH OF V2. V2 BRAKES TO AVOID A COLLISION. PASSENGERS ON BOARD ARE INJURED	Failed to judge other person's path or speed	v	1	В	Careless, reckless or in a hurry	>	1	В										
13	10	583613	2	2	Slight	CROSSGATE J/W GARDEN LANE SOUTH SHIELDS	V2 TRAV SOUTH ON GARDEN LANE WAITING TO TURN RIGHT ONTO CROSSGATE V1 TRAV BEHIND BEGINS TO TURN RIGHT ONTO CROSSGATE COLLIDING WITH V2 WAITING AT THE JUNCTION	Poor turn or manoeuvre	v	1	А	Failed to look properly	٧	1	А										
12	10	606212	1	1	Serious	CORONATION STREET J/W ASDA SOUTH SHIELDS	PEDESTRIAN CROSSES CORONATION ST PAUSING IN CENTRAL HATCHED AREA TO AVOID TRAFFIC. V1 TRAV NORTH TURNS RIGHT FROM ASDA CAR PARK, PEDESTRIAN IS MASKED BEHIND VEHICLES 'A' POST, V1 HITS PEDESTRIAN	Vehicle blind spot	· v	1	В	Pedestrian wearing dark clothing at night	С	1	В										
14	10	617614	1	1	Slight	CHURCH WAY O/S ST HILDAS CHURCH, SOUTH SHIELDS	V1 TRAV EAST ON CHURCH WAY. AS DRIVER ALIGHTS SEAT V1 BEGINS TO MOVE DRIVER IMMEDIATLEY BRAKES BUT THE SUDDEN STOP CAUSES A PASSENGER TO BE INJURED	Sudden braking	V	1	А														
13	11	631613	2	1	Slight	CROSSGATE J/W GARDEN LANE SOUTH SHIELDS	V1 TRAV SOUTH ON GARDEN LANE TURNING RIGHT ONTO A194 CROSSGATE. V2 TRAV SE ON CROSSGATE WAITING TO TURN RIGHT ONTO GARDEN LANE. V1 COLLIDES WITH V2	Dazzling sun	v	1	А	Failed to look properly	٧	1	А										
13	11	653413	1	1	Slight	MARKET PLACE BUS STOP, SOUTH SHIELDS	V1 TRAV NORTH ON MARKET PLACE EDGING OUT OF BUS STOP, PASSENGER FALLS BETWEEN THE SEATS AT THE BACK OF V1	Careless, reckless or in a hurry	v	1	В	Failed to look properly	>	1	В	Poor turn or manoeuvre	v	1	В	Sudden braking	V 1	В			
14	11	673014	1	1	Slight	KEPPEL STREET SOUTH SHIELDS	V1 PARKED AT BUS STOP ON KEPPEL ST. PASSENGER BOARDS V1 FALLING OVER ON STEP	Failed to look properly	v	1	В	Illness or disability, mental or physical	>	1	В										
12	12	702612	1	1	Serious	KEPPEL STREET NR J/W CHAPTER ROW, SOUTH SHIELDS	V1 MOVES OFF FROM BUS STOP ON KEPPEL ST A BOARDING PASSENGER BEGINS TO SIT DOWN FELL AS V1 RELEASED THE BRAKES																		
12	12	708812	1	2	Slight	CORONATION STREET J/W STATION ROAD SOUTH SHIELDS	V1 TRAV WEST ON CORONATION ST TURNS RIGHT AT J/S B1303 PASSENGERS FALL OVER	Travelling too fast for conditions	v	1	В	Other	>	1	А										
12	12	720612	1	1	Slight	BARRINGTON STREET SOUTH SHIELDS	V1 REVERSES ON BARRINGTON ST FROM PARKING BAY AND COLLIDES WITH PEDESTRIAN STANDING ON THE PAVEMENT. V1 STOPPED FOR A SHORT TIME THEN DROVE OFF	Poor turn or manoeuvre	V	1	В	Failed to look properly	>	1	В	Loss of Control	٧	1	В	ailed to look properly	C 1	B ve	iled to judge chicle's path C or speed	1	В
14	11	744914	1	2	Slight	MARKET PLACE OPP. TOWN HALL, SOUTH SHIELDS	V1 TRAV NORTH ON MARKET PLACE BRAKES SHARPLY TO ALLOW ANOTHER FOR ANOTHER VEHICLE CAUSING PASSENGERS ON BOARD TO LOSE BALANCE	Sudden braking	v	1	А	Failed to look properly	٧	1	В										
						*				•						ļ				-	,			-	



Age Of Casualty	Casualty Severity	Pedestrian Location	Pedestrian Movement	Pedestrian Direction	ol Pupil Ca	s Car Passenger	Bus Or Coach Passenger	Casualty Post Code	Road Works	Seat Belt In Use	Cycle Helmet Worn
57	Slight				Other	Not a car passenger	Not a bus or coach passenger	NE34 8EE		Not Applicable	Not a Cyclist
31	Slight	On footway or verge	Walking along in carriageway - back to traffic	South East	Other	Not a car passenger	Not a bus or coach passenger	NE33 3HA	No	Not Applicable	Not a Cyclist
33	Slight				Other	Not a car passenger	Not a bus or coach passenger			Not Applicable	Yes
43	Slight				Other	Not a car passenger	Not a bus or coach passenger	NE33 2DR		Not Applicable	Not Known
47	Slight				Other	Not a car passenger	Not a bus or coach passenger			Worn and independently confirmed	Not a Cyclist
47	Slight				Other	Front seat passenger	Not a bus or coach passenger			Not Applicable	Not a Cyclist
33	Slight				Other	Rear seat passenger	Not a bus or coach passenger			Not Applicable	Not a Cyclist
13	Slight				Other	Not a car passenger	Not a bus or coach passenger			Not Applicable	Not Known
19	Slight				Other	Not a car passenger	Not a bus or coach passenger	NE34 9DU		Unknown	Not a Cyclist
17	Slight	In carriageway, crossing elsewhere	Crossing from driver's offside	East	a journey	Not a car passenger	Not a bus or coach passenger	NE37 1DZ	No	Not Applicable	Not a Cyclist
71	Serious	In carriageway, crossing on pedestrian crossing facility	Crossing from driver's offside - masked by parked or stationary vehicle	South West	Other	Not a car passenger	Not a bus or coach passenger		No	Not Applicable	Not a Cyclist
10	Slight				Other	Not a car passenger	Not a bus or coach passenger	NE33 2HA		Not Applicable	Not Known
26	Slight				Other	Not a car passenger	Not a bus or coach passenger	NE28 OLW		Worn and independently confirmed	Not a Cyclist
58	Slight				Other	Not a car passenger	Not a bus or coach passenger	NE33 3PB		Not Applicable	Not a Cyclist
20	Slight	In carriageway, not crossing	In carriageway, stationary - not crossing (standing or playing)	Standing Still	Other	Not a car passenger	Not a bus or coach passenger	NE34 9HB	No	Not Applicable	Not a Cyclist
65	Slight				Other	Not a car passenger	Alighting			Not Applicable	Not a Cyclist
21	Slight				Other	Not a car passenger	Not a bus or coach passenger	NE33 2PB		Unknown	Not a Cyclist
39	Slight				Other	Not a car passenger	Not a bus or coach passenger	NE33 2HB		Not Applicable	Not Known
20	Slight	In carriageway, crossing on pedestrian crossing facility	Crossing from driver's offside	South	Other	Not a car passenger	Not a bus or coach passenger	NE31 2DW	No	Not Applicable	Not a Cyclist
10	Slight			School Pupil on	a journey	Not a car passenger	Not a bus or coach passenger	NE33 2EA		Not Applicable	No
60	Serious	In carriageway, crossing within zig-zag lines at crossing exit	Unknown or other	South	Other	Not a car passenger	Not a bus or coach passenger	DL13 5HX	No	Not Applicable	Not a Cyclist
64	Serious				Other	Not a car passenger	Standing passenger	NE33 4DA		Not Applicable	Not a Cyclist
37	Slight				Other	Not a car passenger	Standing passenger	NE34 ORE		Not Applicable	Not a Cyclist
2	Slight				Other	Not a car passenger	Standing passenger			Not Applicable	Not a Cyclist
24	Slight	On footway or verge	Unknown or other	Standing Still	Other	Not a car passenger	Not a bus or coach passenger		No	Not Applicable	Not a Cyclist
37	Slight				Other	Not a car passenger	Not a bus or coach passenger	NE34 8LR		Worn but not independently confirmed	Not a Cyclist
80	Slight	In centre of carriageway, not on refuge, central island or central reservation	Crossing from driver's offside	North	Other	Not a car passenger	Not a bus or coach passenger	NE34 9DH	No	Not Applicable	Not a Cyclist
75	Slight	In centre of carriageway, not on refuge, central island or central reservation	Crossing from driver's offside	North	Other	Not a car passenger	Not a bus or coach passenger	NE34 9DF	No	Not Applicable	Not a Cyclist
65	Slight				Other	Not a car passenger	Seated passenger	NE33 4LF		Not Applicable	Not a Cyclist
27	Serious	In carriageway, not crossing	Unknown or other	West	Other	Not a car passenger	Not a bus or coach passenger	NE5 2QA	Yes	Not Applicable	Not a Cyclist
3	Slight				Other	Rear seat passenger	Not a bus or coach passenger			Not Applicable	Not a Cyclist
35	Slight				Other	Not a car passenger	Standing passenger	NE33 3PU		Not Applicable	Not a Cyclist
57	Slight				Other	Not a car passenger	Not a bus or coach passenger	NE33 2EP		Not Applicable	Not a Cyclist
44	Slight	In centre of carriageway, not on refuge, central island or central reservation	Crossing from driver's nearside	East	Other	Not a car passenger	Not a bus or coach passenger	NE33 1EA	No	Not Applicable	Not a Cyclist

Northumbria	13	7	349013	1	1	Pedestrian	Female	51	Slight	On footway or verge	Walking along in carriageway - facing traffic	North	Other	Not a car passenger	Not a bus or coach passenger	DN3 1QQ	No Not Applicable	Not a Cyclist
Northumbria	13	7	349013	1	2	Pedestrian	Male	58	Slight	On footway or verge	Walking along in carriageway - back to traffic	North	Other	Not a car passenger	Not a bus or coach passenger		No Not Applicable	Not a Cyclist
Northumbria	13	7	357013	2	1	Driver or rider	Male	45	Slight				Other	Not a car passenger	Not a bus or coach passenger	NE38 7NX	Not Applicable	Not a Cyclist
Northumbria	13	7	381313	2	1	Driver or rider	Male	40	Slight				Other	Not a car passenger	Not a bus or coach passenger	NE34 8EL	Unknown	Not a Cyclist
Northumbria	13	5	381713	1	1	Vehicle or pillion passenger	Female	71	Slight				Other	Not a car passenger	Seated passenger	SR3 0AT	Not Applicable	Not a Cyclist
Northumbria	13	8	407613	1	1	Pedestrian	Female	61	Slight	In carriageway, crossing elsewhere	Crossing from driver's nearside	North	Other	Not a car passenger	Not a bus or coach passenger		No Not Applicable	Not a Cyclist
Northumbria	13	9	480213	1	1	Vehicle or pillion passenger	Female	78	Slight				Other	Not a car passenger	Seated passenger	NE34 7JT	Not Applicable	Not a Cyclist
Northumbria	13	9	517613	1	1	Vehicle or pillion passenger	Female	50	Slight				Other	Not a car passenger	Alighting	NE34 7PE	Not Applicable	Not a Cyclist
Northumbria	13	9	519013	2	1	Driver or rider	Male	52	Serious				Other	Not a car passenger	Not a bus or coach passenger	NE6 2RU	Unknown	Not a Cyclist
Northumbria	13	10	566713	1	1	Driver or rider	Female	18	Slight				Other	Not a car passenger	Not a bus or coach passenger	NE34 7QR	Unknown	Not a Cyclist
Northumbria	13	10	566713	2	2	Driver or rider	Male	63	Slight				Other	Not a car passenger	Not a bus or coach passenger	NE9 4LB	Not Applicable	Not a Cyclist
Northumbria	13	10	583613	1	1	Driver or rider	Male	61	Slight				Other	Not a car passenger	Not a bus or coach passenger	NE34 OPE	Worn and independently confirmed	Not a Cyclist
Northumbria	13	10	583613	2	2	Driver or rider	Female	27	Slight				Other	Not a car passenger	Not a bus or coach passenger	NE34 7EH	Unknown	Not a Cyclist
Northumbria	13	11	631613	2	1	Driver or rider	Female	57	Slight				Other	Not a car passenger	Not a bus or coach passenger	DH8 6RE	Worn but not independently confirmed	Not a Cyclist
Northumbria	13	11	653413	1	1	Vehicle or pillion passenger	Female	17	Slight				Other	Not a car passenger	Standing passenger	NE34 8HR	Not Applicable	Not a Cyclist
Northumbria	14	2	62714	1	1	Vehicle or pillion passenger	Female	18	Slight				Other	Not a car passenger	Seated passenger	SR6 OSE	Not Applicable	Not a Cyclist
Northumbria	14	2	104814	2	1	Driver or rider	Male	27	Slight				Other	Not a car passenger	Not a bus or coach passenger	NE34 9MT	Not Applicable	Not a Cyclist
Northumbria	14	2	92614	2	1	Driver or rider	Male	35	Slight				Other	Not a car passenger	Not a bus or coach passenger	NE33 4EP	Not Applicable	Not a Cyclist
Northumbria	14	3	139514	2	1	Driver or rider	Female	28	Slight				Other	Not a car passenger	Not a bus or coach passenger		Not Applicable	Not a Cyclist
Northumbria	14	5	298514	2	1	Driver or rider	Male	29	Slight				Other	Not a car passenger	Not a bus or coach passenger	NE27 OBX	Worn but not independently confirmed	Not a Cyclist
Northumbria	14	5	298514	2	2	Vehicle or pillion passenger	Female	28	Slight				Other	Front seat passenger	Not a bus or coach passenger		Not Applicable	Not a Cyclist
Northumbria	14	6	314614	1	1	Vehicle or pillion passenger	Female	21	Slight				Other	Not a car passenger	Alighting	NE34 OBY	Not Applicable	Not a Cyclist
Northumbria	14	6	352014	2	1	Driver or rider	Male	31	Slight				Other	Not a car passenger	Not a bus or coach passenger	NE36 6LF	Not Applicable	Yes
Northumbria	14	6	360314	2	1	Vehicle or pillion passenger	Male	41	Slight				Other	Front seat passenger	Not a bus or coach passenger		Not Applicable	Not a Cyclist
Northumbria	14	6	360314	2	2	Vehicle or pillion passenger	Male	2	Slight				Other	Rear seat passenger	Not a bus or coach passenger		Not Applicable	Not a Cyclist
Northumbria	14	7	411114	1	1	Vehicle or pillion passenger	Female	84	Slight				Other	Not a car passenger	Standing passenger		Not Applicable	Not a Cyclist
Northumbria	14	8	507814	1	1	Vehicle or pillion passenger	Female	89	Slight				Other	Not a car passenger	Standing passenger	NE34 6EB	Not Applicable	Not a Cyclist
Northumbria	14	9	549714	2	1	Driver or rider	Male	35	Slight				Other	Not a car passenger	Not a bus or coach passenger		Not Applicable	No
Northumbria	14	10	578614	2	1	Vehicle or pillion passenger	Male	30	Slight				Other	Not a car passenger	Standing passenger	NE34 6AJ	Not Applicable	Not a Cyclist
Northumbria	14	10	578614	2	2	Vehicle or pillion passenger	Female	80	Slight				Other	Not a car passenger	Seated passenger	SR6 7SS	Not Applicable	Not a Cyclist
Northumbria	14	10	578614	2	3	Vehicle or pillion passenger	Female	82	Slight				Other	Not a car passenger	Standing passenger	SR6 7RP	Not Applicable	Not a Cyclist
Northumbria	14	10	617614	1	1	Vehicle or pillion passenger	Female	65	Slight				Other	Not a car passenger	Alighting	NE33 5DE	Not Applicable	Not a Cyclist
Northumbria	14	11	673014	1	1	Vehicle or pillion passenger	Female	30	Slight				Other	Not a car passenger	Boarding	NE31 1JY	Not Applicable	Not a Cyclist
Northumbria	14	11	744914	1	1	Vehicle or pillion passenger	Male	45	Slight				Other	Not a car passenger	Standing passenger		Not Applicable	Not a Cyclist
Northumbria	14	11	744914	1	2	Vehicle or pillion passenger	Female	45	Slight				Other	Not a car passenger	Seated passenger		Not Applicable	Not a Cyclist
Northumbria	15	3	172915	3	1	Driver or rider	Female	19	Slight				Other	Not a car passenger	Not a bus or coach passenger	NE34 9DX	Unknown	Not a Cyclist

					<u> </u>									First									$\overline{}$
								Direction			el de la constant			Object Off the	First	c. or	01				Foreign		Left
Police Force	Year	Month	Acc Ref Re	ef Type Of Vehicle	Towing or Artic	Manoeuvres	From	Of Travel To	Vehicle Location	Junction Location	Skidding and Overturning		Vehicle Leaving Carriageway	way	Point of Impact				Hit and Run	Driver Post Code	Vehicle	Journey Purpose	Hand Drive
Northumbria	12	1	8512	2 Car	No tow or articulation	Turning left	South East	South West	On main carriageway - not ir restricted lane	Cleared junction or waiting/parked at junction exit	No skidding, jack- t knifing or overturning	None	Did not leave carriageway	None	Front	Male	57 (Oriver not contacted	Other	NE34 8EE	Not a foreign registered vehicle	Other	No
Northumbria	12	1	8512	1 Car	No tow or articulation	Turning left	South East	South West	On main carriageway - not ir restricted lane	Cleared junction or waiting/parked at junction exit	No skidding, jack- t knifing or overturning	None	Did not leave carriageway	None	Front	Femal e	23 (Oriver not contacted	Other	NE34 7NR	Not a foreign registered vehicle	Commuting to/from work	No
Northumbria	12	1	8512	3 Car	No tow or articulation	Turning left	South East	South West	On main carriageway - not ir restricted lane	Cleared junction or waiting/parked at junction exit	No skidding, jack- t knifing or overturning	None	Did not leave carriageway	None	Back	Femal e		Oriver not	Other	NE33 4TN	Not a foreign registered vehicle	Other	No
				Bus or coach (17 or	No tow or	Slowing or	North	South		Mid junction - on roundabout	No skidding, jack-		Did not leave			Not		Oriver not contacted at time of			Not a foreign registered	Journey as part of	
Northumbria	12	1	52912	1 more passenger seats)	articulation	stopping	West	East	Bus Lane	or on main road	knifing or overturning	None	carriageway	None	Front	traced	i		Other		vehicle Not a foreign	work	No
Northumbria	12	2	98412	2 Pedal Cycle	No tow or articulation	Going ahead other	North	South	restricted lane	Mid junction - on roundabout or on main road	No skidding, jack- knifing or overturning	None	Did not leave carriageway	None	Did not impact	Male	33	requested	Other		registered vehicle Not a foreign	Commuting to/from work	No
Northumbria	12	2	98412	1 Car	No tow or articulation	Turning left	North East	South	On main carriageway - not ir restricted lane	Entering roundabout	No skidding, jack- knifing or overturning	None	Did not leave carriageway	None	Did not impact	Not traced		Oriver not contacted	Other		registered vehicle Not a foreign	Journey as part of work	No
Northumbria	12	3	171712	2 Pedal Cycle	No tow or articulation	Going ahead other	South West	North East	On main carriageway - not in restricted lane	Approaching junction or waiting/parked at junction exit	No skidding, jack- t knifing or overturning	None	Did not leave carriageway	None	Nearsid e	Male	43 1	Not requested	Other	NE33 2DR	registered vehicle Not a foreign	Commuting to/from work	No
Northumbria	12	3	171712	1 Car	No tow or articulation	Going ahead other Waiting to go	North West	South East	Leaving lay-by or hard shoulder	Approaching junction or waiting/parked at junction exit	No skidding, jack- t knifing or overturning	None	Did not leave carriageway	None	Front	Male	80	Negative	Hit and Run	NE34 6QT	registered vehicle Not a foreign	Commuting to/from work	No
Northumbria	12	3	189412	2 Car	No tow or articulation	ahead but held up	North West	South East	On main carriageway - not in restricted lane	Approaching junction or waiting/parked at junction exit	No skidding, jack- t knifing or overturning	None	Did not leave carriageway	None	Back	Male	47	Negative	Other		registered vehicle	Other	No
Northumbria	12	3	189412	1 Car	No tow or articulation	Going ahead other	North West	South East	On main carriageway - not ir restricted lane	Approaching junction or waiting/parked at junction exit	No skidding, jack- t knifing or overturning	None	Did not leave carriageway	None	Front	Femal e	24 [Negative	Other		Not a foreign registered vehicle	Other	No
Northumbria	12	3	195812	2 Pedal Cycle	No tow or articulation	Going ahead other	North West	South East	On main carriageway - not ir restricted lane	Not at, or within 20 metres of junction	No skidding, jack- knifing or overturning	None	Did not leave carriageway	None	Front	Male	13 :	Not requested	Other		Not a foreign registered vehicle	Not known	No
Northumbria	12	3	195812	1 Car	No tow or articulation	Going ahead other	South East	North West	On main carriageway - not ir restricted lane	Not at, or within 20 metres of junction	No skidding, jack- knifing or overturning	None	Did not leave carriageway	None	Front	Not traced	1	Oriver not contacted	Other		Not a foreign registered vehicle	Not known	No
Northumbria	12	4	210012	2 Car	No tow or articulation	Waiting to go ahead but held up	South West	North East	On main carriageway - not ir restricted lane	Approaching junction or waiting/parked at junction exit	No skidding, jack-	None	Did not leave carriageway	None	Back	Femal e	19 (Negative	Other	NE34 9DU	Not a foreign registered vehicle	Other	No
Northumbria	12	4	210012	1 Car	No tow or articulation	Going ahead other	South	North East	On main carriageway - not in restricted lane		No skidding, jack-		Did not leave carriageway	None	Front	Male		Negative	Other	NE33 2DZ	Not a foreign registered vehicle	Other	No
Northumbria	12	-	210012	I Cai	articulation	otilei	west	Last	restricted faile	waiting/parked at junction exit	Killing or overturning	None	carriageway	None	TTOTIC	iviale	32	vegative	Other	NESS ZDZ		Other	INO
Northumbria	12	4	184612	1 Car	No tow or articulation	Slowing or stopping	North West	South East	On main carriageway - not ir restricted lane	Not at, or within 20 metres of junction	No skidding, jack- knifing or overturning	None	Did not leave carriageway	None	Offside	Not traced		Oriver not contacted	Hit and Run		Not a foreign registered vehicle	Not known	No
																					Not a foreign		
Northumbria	12	5	258312	1 Car	No tow or articulation	Going ahead other	South East	North West	On main carriageway - not ir restricted lane	Not at, or within 20 metres of junction	No skidding, jack- knifing or overturning	None	Did not leave carriageway	None	Front	Male	46	Negative	Other	NE33 4TS	registered vehicle	Other	No
																					Not a foreign		
Northumbria	12	6	316912	1 Pedal Cycle	No tow or articulation	Going ahead other	North West	South East	On main carriageway - not ir restricted lane	Mid junction - on roundabout or on main road	No skidding, jack- knifing or overturning	None	Did not leave carriageway	None	Front	Male	10	Not applicable	Other	NE33 2HA	registered vehicle Not a foreign	Other	No
Northumbria	12	6	316912	2 Car	No tow or articulation	Going ahead other	North East	South West	On main carriageway - not in restricted lane	Mid junction - on roundabout or on main road	No skidding, jack- knifing or overturning	None	Did not leave carriageway	None	Offside	Femal e		Not requested	Other	SR6 7TG	registered vehicle Not a foreign	Other	No
Northumbria	12	6	326612	1 Car	No tow or articulation	Going ahead other	North East	South West	On main carriageway - not ir restricted lane	n Entering main road	No skidding, jack- knifing or overturning	None	Did not leave carriageway	None	Front	Male		Not requested	Other	NE28 OLW	registered vehicle	Commuting to/from work	No
Northumbria	12	6	326612	2 Car	No tow or articulation	Going ahead other	North West	South East	On main carriageway - not ir restricted lane	Mid junction - on roundabout or on main road	No skidding, jack- knifing or overturning	None	Did not leave carriageway	None	Front	Male	53	Negative	Other	NE33 2EQ	Not a foreign registered vehicle	Commuting to/from work	No
Northumbria	12	5	363212	2 Mobility Scooter	No tow or articulation	Slowing or stopping	South East	North West	On main carriageway - not ir restricted lane	Approaching junction or waiting/parked at junction exit	No skidding, jack- t knifing or overturning	None	Did not leave carriageway	None	Front	Femal e		Not requested	Other	NE33 3PB	Not a foreign registered vehicle	Other	No
Northumbria	12	5	363212	1 Car	No tow or articulation	Moving off	North East	South West	On main carriageway - not ir restricted lane	Approaching junction or waiting/parked at junction exit	No skidding, jack- t knifing or overturning	None	Did not leave carriageway	None	Front	Not traced	1	Not requested	Hit and Run		Not a foreign registered vehicle	Not known	No
Northumbria		7	372212	1 Car	No tow or articulation	Going ahead other	South	North	On main carriageway - not ir restricted lane	Not at, or within 20 metres of junction			Did not leave carriageway	None	Nearsid e	Male		Driver not	Other	NE33 2PB	Not a foreign registered vehicle	Not known	No
Northumbria	12		381112	Bus or coach (17 or 1 more passenger seats)	No tow or	Going ahead other	West	East		Not at, or within 20 metres of junction			Did not leave carriageway	None	Did not impact	Male		Oriver not	Other	NE31 1PE	Not a foreign registered vehicle	Journey as part of work	No
	. 12				No tow or	Going ahead			On main carriageway - not ir	Cleared junction or	No skidding, jack-		Did not leave								Not a foreign registered		
Northumbria			394612	2 Car	No tow or	other Going ahead	North	South	restricted lane On main carriageway - not ir		No skidding, jack-		Did not leave	None	Back	Male			Other	NE33 2PB	vehicle Not a foreign registered	Not known	No
Northumbria			394612	1 Car	articulation No tow or	other Going ahead	South North	North South		waiting/parked at junction exit Mid junction - on roundabout	No skidding, jack-		carriageway Did not leave	None	Back	Male		Not	Other	NE34 7BJ	vehicle Not a foreign registered	Not known	No
Northumbria	12	7	403512	2 Pedal Cycle	articulation No tow or	other Going ahead	West North	East South	restricted lane On main carriageway - not ir	or on main road Mid junction - on roundabout	knifing or overturning No skidding, jack-	None	carriageway Did not leave	None	Back	Male		applicable Driver not contacted at	Other	NE33 2HB	vehicle Not a foreign registered	Other	No
Northumbria	12	7	403512	1 Car	articulation No tow or	other Going ahead	West	East	restricted lane	or on main road Not at, or within 20 metres of	knifing or overturning	None	carriageway Did not leave	None	Front	Male	İ	ime of	Other	NE32 4BB	vehicle Not a foreign registered	Not known	No
Northumbria	12	9	506512	1 Car	articulation	other	East	West	restricted lane	junction	knifing or overturning	None	carriageway	None	Offside	Male	61	Negative	Other	NE32 4BF	vehicle	Not known	No

	1		l			1	1			1		I	T .					1	1	1	Not a foreign	1	
Northumbria	12	Q	523012	1	Pedal Cycle	No tow or articulation	Going ahead other	West	East	On main carriageway - not in restricted lane	Mid junction - on roundabout or on main road	No skidding, jack- knifing or overturning	None	Did not leave carriageway	None	Front	Male	Not 10 requested	Other	NE33 2EA	registered vehicle	Pupil riding to/from school	No
Northumbria	12	9	323012	1				west	EdSL				None		None	FIORE	iviale	To requested	Other	NESS ZEA	Not a foreign		INO
Northumbria	12	9	523012	2	Car	No tow or articulation	Going ahead other	South	North	On main carriageway - not in restricted lane	Mid junction - on roundabout or on main road	No skidding, jack- knifing or overturning	None	Did not leave carriageway	None	Nearside	Male	45 Negative	Other	NE33 2ED	registered vehicle	Taking pupil to/from school	No
						No tow or				On main carriageway - not				Did not leave							Not a foreign	Journey as part of	
Northumbria	12	10	606212	1	Car	No tow or articulation	Turning right	South	East	in restricted lane	Entering main road	No skidding, jack- knifing or overturning	None	Did not leave carriageway	None	Offside	Male	56 Negative	Other	NE33 4BY	registered vehicle	work	No
					Bus or coach (17 or	No tow or		South	North		Not at, or within 20 metres of	No skidding, jack-		Did not leave		Did not		Not			Not a foreign registered	Journey as part of	
Northumbria	12	12	702612	1	more passenger seats)	articulation	Moving off	West	East	Bus Lane	junction	knifing or overturning	None	carriageway	None	impact	Male	56 requested	Other	NE34 7SB	vehicle Not a foreign	work	No
						No tow or				On main carriageway - not		No skidding, jack-		Did not leave		Did not		Not			registered	Journey as part of	
Northumbria	12	12	708812	1	more passenger seats) Goods vehicle 3.5	articulation	Turning right	East	North	in restricted lane	Entering main road	knifing or overturning	None	carriageway	None	impact	Male	25 requested	Other	NE34 0QY	vehicle Not a foreign	work	No
Northumbria	12	12	720612	1	tonnes maximum gross weight (mgw) and	No tow or articulation	Reversing	West	East	On main carriageway - not in restricted lane	Not at, or within 20 metres of junction	No skidding, jack- knifing or overturning	None	Did not leave carriageway	None	Back	Not traced	Driver not contacted	Hit and Run		registered vehicle	Other	No
Northambria	12	12	720012				Waiting to go	West	Lust				None		None	Buck			Itali		Not a foreign		140
Northumbria	13	2	161413	2	Car	No tow or articulation	ahead but held up	South	North	On main carriageway - not in restricted lane	Approaching junction or waiting/parked at junction exit	No skidding, jack- knifing or overturning	None	Did not leave carriageway	None	Back	Femal e	Driver not 37 contacted	Other	NE34 8LR	registered vehicle	Commuting to/from work	No
						No tow or	Going ahead			On main carriageway - not	Approaching junction or	No skidding, jack-		Did not leave				Driver not			Not a foreign registered		
Northumbria	13	2	161413		Car	articulation		South	North	in restricted lane	waiting/parked at junction exit		None	carriageway	None	Front	Male	27 contacted	Other	NE29 8SV	vehicle	Not known	No
					Goods vehicle 3.5 tonnes maximum gross	No tow or				On main carriageway - not	Not at, or within 20 metres of	No skidding, jack-		Did not leave				Driver not	Hit and		Not a foreign registered	Journey as part of	
Northumbria	13	3	132613	1	weight (mgw) and	articulation	Reversing	East	West	in restricted lane	junction	knifing or overturning	None	carriageway	None	Back	Male	27 contacted	Run	DH5 OHE	vehicle Not a foreign	work	No
Northumbria	12	2	135113			No tow or articulation	Changing lane to right	North	South	On main carriageway - not in restricted lane	Mid junction - on roundabout or on main road	No skidding, jack- knifing or overturning	None	Did not leave carriageway	Lamp Post	Did not impact	Male	Driver not 46 contacted	Other		registered vehicle	Journey as part of work	No
Northambria	13	,	133113				rigite	North	300111				None		rost	iiipact	iviale	40 contacted	Other		Not a foreign	_	INO
Northumbria	13	4	162913		Goods vehicle 7.5 tonnes mgw and over	No tow or articulation	Reversing	West	East	On main carriageway - not in restricted lane	Not at, or within 20 metres of junction	No skidding, jack- knifing or overturning	None	Did not leave carriageway	None	Offside	Male	52 Negative	Other	SR2 8SJ	registered vehicle	Journey as part of work	No
						No tow or	Slowing or			On main carriageway - not	Approaching junction or	No skidding, jack-		Did not leave							Not a foreign registered		
Northumbria	13	5	229813	2	Car	articulation	stopping	South	North	in restricted lane	waiting/parked at junction exit		None	carriageway	None	Front	Male	34 Negative	Other	DH5 9PB	vehicle	Other	No
						No tow or	Going ahead			On main carriageway - not	Approaching junction or	No skidding, jack-		Did not leave			Femal				Not a foreign registered		
Northumbria	13	5	229813	1	Car	articulation	other	South	North	in restricted lane	waiting/parked at junction exit	knifing or overturning	None	carriageway	None	Front	e	31 Negative	Other	NE33 1LN	vehicle Not a foreign	Other	No
No allo control	4.2	-	220042	2		No tow or	Slowing or	Countle	No orth	On main carriageway - not	Approaching junction or	No skidding, jack-	None	Did not leave		D- d		46 No	Other	TC40 0C7	registered	Other	
Northumbria	13	5	229813	3	Car	articulation	stopping	South	North	in restricted lane	waiting/parked at junction exit	knifing or overturning	None	carriageway	None	Back	Male	46 Negative Driver not	Other	TS19 OSZ	vehicle Not a foreign	Other	No
Northumbria	13	5	234613		Bus or coach (17 or more passenger seats)	No tow or articulation	Slowing or stopping	South West	North East	On main carriageway - not in restricted lane	Not at, or within 20 metres of junction	No skidding, jack- knifing or overturning	None	Did not leave carriageway	None	Did not impact	Male	contacted at 46 time of	Other	SR8 5QU	registered vehicle	Journey as part of work	No
																		Not			Not a foreign		
Northumbria	13	6	301313		Motorcycle 50cc and Under	No tow or articulation	Going ahead other	South	North	On main carriageway - not in restricted lane	Not at, or within 20 metres of junction	knifing or overturning	None	Did not leave carriageway	None	Offside	Male	57 requested	Other	NE33 2EP	registered vehicle	Not known	No
					Goods vehicle 3.5 tonnes maximum gross	No tow or				On main carriageway - not	Not at, or within 20 metres of	No skidding, jack-		Did not leave							Not a foreign registered	Journey as part of	
Northumbria	13	6	301313	2	weight (mgw) and	articulation	Reversing	North	South	in restricted lane	junction	knifing or overturning	None	carriageway	None	Nearside	Male	33 Negative	Other	SR4 8AX	vehicle Not a foreign	work	No
						No tow or				On main carriageway - not	Not at, or within 20 metres of			Did not leave			Not	Not			registered		
Northumbria	13	6	301313	3	Car Goods vehicle 3.5	articulation	Parked	Parked	Parked	in restricted lane	junction	knifing or overturning	None	carriageway	None	Offside	traced	requested	Other		vehicle Not a foreign	Not known	No
Northumbria	13	6	311513	1	tonnes maximum gross weight (mgw) and	No tow or articulation	Turning left	South	West	On main carriageway - not in restricted lane	Entering main road	No skidding, jack- knifing or overturning	None	Did not leave carriageway	None	Front	Male	Driver not contacted	Other	NE33 2BY	registered vehicle	Not known	No
- Tortandinona	13	-	311313					Journ	· · · csc				, i volic		None	110111					Not a foreign	Not known	1.0
Northumbria	13	7	349013	1	Car	No tow or articulation	Going ahead other	North	South	On main carriageway - not in restricted lane	Not at, or within 20 metres of junction	No skidding, jack- knifing or overturning	None	Did not leave carriageway	None	Nearside	Not traced	Driver not contacted	Hit and Run		registered vehicle	Not known	No
						No tow or	Going ahead			On main carriageway - not	Mid junction - on roundabout	No skidding, jack-		Did not leave							Not a foreign registered		
Northumbria	13	7	357013	2	Motorcycle over 500cc	articulation		East	West	in restricted lane	or on main road	knifing or overturning	None	carriageway	None	Front	Male	45 Negative	Other	NE38 7NX	vehicle Not a foreign	Other	No
						No tow or				On main carriageway - not		No skidding, jack-		Did not leave							registered	Commuting to/from	
Northumbria	13	7	357013	1	Car	articulation	Turning right	West	South	in restricted lane	Entering main road	knifing or overturning	None	carriageway	None Other	Front	Male	27 Negative	Other	NE33 2DT	vehicle Not a foreign	work	No
Northumbria	13	7	381313	2	Car	No tow or articulation	Going ahead other	West	East	On main carriageway - not in restricted lane	Mid junction - on roundabout or on main road	No skidding, jack- knifing or overturning	None	Did not leave carriageway	perman ent	Nearside	Male	Not 40 requested	Other	NE34 8EL	registered vehicle	Other	No
	10								1			No skidding, jack-			1	32.3.00				1	Not a foreign		
Northumbria	13	7	381313	1	Car	No tow or articulation	Turning left	North	East	On main carriageway - not in restricted lane	Mid junction - on roundabout or on main road	No skidding, jack- knifing or overturning	None	Did not leave carriageway	None	Front	Femal e	29 Negative	Other	NE33 3PB	registered vehicle	Other	No
	Ī				Bus or coach (17 or	No tow or	Slowing or			On main carriageway - not	Approaching junction or	No skidding, jack-		Did not leave		Did not	Not	Driver not			Not a foreign registered	Journey as part of	
Northumbria	13	5	381713		,	articulation	stopping	East	West	in restricted lane	waiting/parked at junction exit		None	carriageway	None	impact	traced	contacted	Other		vehicle Not a foreign	work	No
					Bus or coach (17 or	No tow or	Slowing or			On main carriageway - not	Not at, or within 20 metres of			Did not leave				Driver not			registered	Journey as part of	
Northumbria	13	8	407613	1	more passenger seats)	articulation	stopping	West	East	in restricted lane	junction	knifing or overturning	None	carriageway	None	Front	Male	59 contacted	Other	NE34 9TX	vehicle Not a foreign	work	No
Northumbria	13	Q	517613		Bus or coach (17 or more passenger seats)	No tow or articulation	Slowing or stopping	South West	North East	On main carriageway - not in restricted lane	Mid junction - on roundabout or on main road	No skidding, jack- knifing or overturning	None	Did not leave carriageway	None	Did not impact	Male	Not 54 requested	Other	NE34 OTY	registered vehicle	Journey as part of work	No
	10		525						1						1			Not provided		1	Not a foreign		
Northumbria	13	9	519013	2	Car	No tow or articulation	Going ahead other	East	West	On main carriageway - not in restricted lane	Mid junction - on roundabout or on main road	No skidding, jack- knifing or overturning	None	Did not leave carriageway	None	Front	Male	(medical 52 reasons)	Other	NE6 2RU	registered vehicle	Not known	No
	Ī					No tow or	Going ahead			On main carriageway - not	Mid junction - on roundabout	No skidding, jack-		Did not leave							Not a foreign registered		
Northumbria	13	9	519013	1	Car	articulation	-	South	North	in restricted lane	or on main road	knifing or overturning	None	carriageway	None	Front	Male	40 Negative	Other	NE33 2EA	vehicle Not a foreign	Other	No
						No tow or				On main carriageway - not		No skidding, jack-		Did not leave			Femal	Not			registered	Commuting to/from	
Northumbria	13	10	566713	1	Car	articulation	Turning right	South	North	in restricted lane	Entering main road	knifing or overturning	None	carriageway	None	Offside	e	18 requested	Other	NE34 7QR	vehicle Not a foreign	work	No
Northumbria	13	10	566713	2	Bus or coach (17 or more passenger seats)	No tow or articulation	Going ahead right hand bend	North East	South West	On main carriageway - not in restricted lane	Mid junction - on roundabout or on main road	No skidding, jack- knifing or overturning	None	Did not leave carriageway	None	Front	Male	Not 63 requested	Other	NE9 4LB	registered vehicle	Journey as part of work	No
. Jo. C. G.	13	10	550/15								a. o.i maii rodd				one		anc		Carci	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Not a foreign		
Northumbria	13	10	583613	1	Car	No tow or articulation		North West	North East	On main carriageway - not in restricted lane	Leaving main road	No skidding, jack- knifing or overturning	None	Did not leave carriageway	None	Front	Male	Not 61 requested	Other	NE34 OPE	registered vehicle	Not known	No
							. 0 0				. •			. 01			- 1	4					

Marchan Part Marchan			$\overline{}$	\top
March Marc	icle Not known	wn		No
1		<u></u>		No
Part				INC
1	Journey as part of icle work	as part of		No
Part	Journey as part of	as part of		
Table 1	cle work		—	No
Companies 1	Journey as part of icle work	as part of	of	N
1	cle Other			No
	icle Other			No
Securing 1 of 1 o				
Service Merican Service Merica	cle Other			No
Section Sect	cle Other			No
State Stat	Journey as part of	as nart of	of	T
1				N/
Note 1				
Notice 1	cie Otner			No
1	cle Other			N/
Northumble 1	iala Othar			N
Northumble 14			_	INC
Northumbra 14 6 \$32014 2 Pada Cycle ambulation of the West Past extracted lane or no main cardigeous y not in Continumbra 14 6 \$32014 2 Car arculation and particulation of the West Past of Continumbra 15 6 \$32014 2 Car arculation and particulation of the West Past of Continumbra 16 6 \$32014 2 Car arculation and particulation of the West Past of Continumbra 16 6 \$32014 2 Car arculation and particulation of the West Past of Continumbra 16 6 \$32014 2 Car arculation and particulation of the West Past of Continumbra 16 6 \$32014 2 Car arculation and particulation of the West Past of Continumbra 17 6 \$32014 2 Car arculation and particulation of the West Past of Continumbra 18 6 \$32014 2 Car arculation and past of Conti	Journey as part of icle work	as part of		No
1	cle Other			No
Northumbris 14 0 360314 2 Car articulation Parked P	icle Other			No
Northumbria 14 G 50314 2 Car anticulation Parked Pa				
Northumbria 14 6 3 630314 1 Car articulation other South North South North Northumbria 14 8 5 97814 1 Car articulation other Northumbria 14 9 5 49714 1 Car articulation other Northumbria 14 10 578614 1 Car articulation other Northumbria 14 10 578614 1 Car articulation other North South North Northumbria 14 10 578614 1 Car articulation other North South North North North South North North South North North South North	cle Other			No
Northumbria 14 8 8 97814 2 more passenger seats) articulation other West East restricted lane unction within 20 metres of normal carriageway - not in Not at, or within 20 metres of unction other wasting/garked at junction of main carriageway - not in Nort at origing or overturning None carriageway None offside Nale Not Not Northumbria 14 10 578614 2 more passenger seats) articulation of the North Worthumbria 14 10 617614 1 more passenger seats) articulation of the North Worthumbria 14 11 673014 1 more passenger seats) articulation of the North Worthumbria 14 11 673014 1 more passenger seats) articulation of the North Worthumbria 14 11 673014 1 more passenger seats) articulation of the North Worthumbria 14 11 744914 1 more passenger seats) articulation of the North Worthumbria 15 3 1272915 3 Care articulation of the North Worthumbria 15 3 1272915 3 Care articulation of the North Worthumbria 15 3 1272915 3 Care articulation of the North Worthumbria 15 3 1272915 3 Care articulation of the North Worthumbria 15 3 1272915 3 Care articulation of the North Worthumbria 15 3 1272915 3 Care articulation of the North Worthumbria 15 3 1272915 3 Care articulation of the North Worthumbria 15 3 1272915 3 Care articulation of the North Worthumbria 15 3 1272915 3 Care articulation of the Northumbria 15 3 1272915 3 Care articulation of the North Worthumbria 15 3 1272915 3 Care articulation of the North Worthumbria 15 3 1272915 3 Care articulation of the North Worthumbria 15 3 1272915 3 Care articulation of the North Worthumbria of the North Worthumbria of the Northumbria 15 3 1272915 3 Care articulation of the North Worthumbria of the Northumbria of the Nor	cle Other			No
Northumbria 14 8 8 97814 2 more passenger seats) articulation other West East restricted lane unction within 20 metres of normal carriageway - not in Not at, or within 20 metres of unction other wasting/garked at junction of main carriageway - not in Nort at origing or overturning None carriageway None offside Nale Not Not Northumbria 14 10 578614 2 more passenger seats) articulation of the North Worthumbria 14 10 617614 1 more passenger seats) articulation of the North Worthumbria 14 11 673014 1 more passenger seats) articulation of the North Worthumbria 14 11 673014 1 more passenger seats) articulation of the North Worthumbria 14 11 673014 1 more passenger seats) articulation of the North Worthumbria 14 11 744914 1 more passenger seats) articulation of the North Worthumbria 15 3 1272915 3 Care articulation of the North Worthumbria 15 3 1272915 3 Care articulation of the North Worthumbria 15 3 1272915 3 Care articulation of the North Worthumbria 15 3 1272915 3 Care articulation of the North Worthumbria 15 3 1272915 3 Care articulation of the North Worthumbria 15 3 1272915 3 Care articulation of the North Worthumbria 15 3 1272915 3 Care articulation of the North Worthumbria 15 3 1272915 3 Care articulation of the North Worthumbria 15 3 1272915 3 Care articulation of the Northumbria 15 3 1272915 3 Care articulation of the North Worthumbria 15 3 1272915 3 Care articulation of the North Worthumbria 15 3 1272915 3 Care articulation of the North Worthumbria 15 3 1272915 3 Care articulation of the North Worthumbria of the North Worthumbria of the Northumbria 15 3 1272915 3 Care articulation of the North Worthumbria of the Northumbria of the Nor	Journey as part of	as part of	of	
Northumbria 14 9 549714 1 Car articulation other North South restricted lane unction kinfing or overturning None carriageway None Offside Male 35 applicable Other registered vehicle Northumbria 14 9 549714 1 Car articulation other North South Oth		· 		No
Northumbria 14 9 549714 1 Car articulation other Northumbria 14 9 549714 1 Car articulation other Northumbria 14 10 578614 1 Car articulation other Northumbria 14 10 578614 1 Car articulation other Northumbria 14 10 617614 1 more passenger seats) No tow or Northumbria 14 11 673014 1 more passenger seats) Northumbria 15 3 172915 3 (Car articulation of Carriageway - not in Torthumbria 15 3 172915 3 (Car articulation of Carriageway - Northumbria 15 3 172915 3 (Car articulation of Carriageway - Northumbria of Carriageway - Northumbria 15 3 172915 3 (Car articulation of Carriageway - Northumbria	cle Not known	wn		No
Northumbria 14 9 549714 1 Car articulation other North South restricted lane junction knifing or overturning None carriageway None front traced contacted Other registered vehicle Northumbria 14 10 578614 2 more passenger seats) articulation other North South restricted lane waiting/parked at junction or w				Ť
Northumbria 14 10 578614 2 more passenger seats) articulation other North South restricted lane waiting/parked at junction exit knifing or overturning None carriageway None impact Male 51 requested Other SR3 4PG registered vehicle waiting/parked at junction exit knifing or overturning None carriageway None impact Male 51 requested Other SR3 4PG registered vehicle waiting/parked at junction exit knifing or overturning None carriageway None impact e 71 contacted not hit North Feat North Penal Driver not to their passenger seats) Northumbria 14 10 617614 1 more passenger seats) articulation Moving off West East restricted lane of the parked at junction waiting/parked at junction waiting/par	cle Not known	vn		No
Nothumbria 14 10 578614 1 Car articulation Turning left Not wo or articulation Turning left Not wo or articulation Turning left Not a foreign restricted lane No the East Not a foreign restricted lane No skidding, jack-knifting or overturning None No skidding, jack-kn	Journey as part of icle work	as part of		No
Northumbria 14 10 578614 1 Car articulation Turning left North East restricted lane Leaving main road knifing or overturning None carriageway None impact e 71 contacted not hit NE33 2NN registered vehicle Northumbria 14 10 617614 1 more passenger seats) No tow or Northumbria 14 11 673014 1 more passenger seats) Northumbria 14 11 744914 1 more passenger seats) No tow or Northumbria 15 3 172915 3 Car No tow or Going ahead North South On main carriageway - not in Not and or within 20 metres of junction or on main road Northumbria 15 3 172915 3 Car No tow or Going ahead North South On main carriageway - not in Not and or within 20 metres of junction or on main road Northumbria None carriageway None impact None carriageway None impact None carriageway None impact				T
Northumbria 14 10 617614 1 more passenger seats) articulation Moving off West East restricted lane junction knifing or overturning None carriageway None impact Male 52 contacted Other NE33 SRU registered vehicle we hold with the new passenger seats) articulation Parked Parke	cle Not known	vn		No
Northumbria 14 11 673014 1 more passenger seats) articulation Parked Parked Parked Parked restricted lane junction knifing or overturning None carriageway None impact Male 47 contacted Other NE21 6PY registered vehicle w On main carriageway - not in Not at, or within 20 metres of No skidding, jack-knifing or overturning None carriageway None impact Male 47 contacted Other NE21 6PY registered vehicle w On main carriageway - not in restricted lane junction Not at, or within 20 metres of No skidding, jack-knifing or overturning None carriageway None impact Male 47 contacted Other NE3 3AR registered vehicle w Not a foreign Journal Not at or within 20 metres of No skidding, jack-knifing or overturning None carriageway None impact Male 49 contacted Other NE3 3AR registered vehicle w Not a foreign None Not a foreign or or on main road No skidding, jack-knifing or overturning None carriageway None Front e 19 contacted Other NE34 9DX registered vehicle w	Journey as part of icle work	as part of		No
Northumbria 14 11 744914 1 more passenger seats) articulation stopping South North restricted lane junction knifing or overturning None carriageway None impact Male 49 contacted Other NE3 3AR registered vehicle was not in the contacted of the new possenger seats) No tow or south of the new possenger seats) articulation of the new possenger seats) articulation stopping South North restricted lane junction or normal point in the new possenger seats) None possenger seats) articulation stopping South North restricted lane junction or normal point in the new possenger seats) None possenger seats) articulation stopping South North restricted lane junction or normal point in the new possenger seats) None possenger seats) articulation stopping South North restricted lane possenger seats) North registered vehicle was not possenger seats) articulation or normal possenger seats) articulation stopping South North restricted lane possenger seats) North registered vehicle was not possenger seats) articulation stopping South North restricted lane possenger seats) North registered vehicle was not possenger seats) articulation stopping South North restricted lane possenger seats) North registered vehicle was not possenger seats) articulation stopping South North restricted lane possenger seats) North registered vehicle was not possenger seat	Journey as part of icle work	as part of		No
Northumbria 14 11 744914 1 more passenger seats) articulation stopping South North restricted lane junction knifing or overturning None carriageway None impact Male 49 contacted Other NE3 3AR registered vehicle was not in the contacted of the new possenger seats) No tow or south of the new possenger seats) articulation of the new possenger seats) articulation stopping South North restricted lane junction or normal point in the new possenger seats) None possenger seats) articulation stopping South North restricted lane junction or normal point in the new possenger seats) None possenger seats) articulation stopping South North restricted lane junction or normal point in the new possenger seats) None possenger seats) articulation stopping South North restricted lane possenger seats) North registered vehicle was not possenger seats) articulation or normal possenger seats) articulation stopping South North restricted lane possenger seats) North registered vehicle was not possenger seats) articulation stopping South North restricted lane possenger seats) North registered vehicle was not possenger seats) articulation stopping South North restricted lane possenger seats) North registered vehicle was not possenger seats) articulation stopping South North restricted lane possenger seats) North registered vehicle was not possenger seat	Journey as part of	as nart of	of	T
Northumbria 15 3 172915 3 Car articulation other East West restricted lane or on main road knifing or overturning None carriageway None Front e 19 contacted Other NE34 9DX registered vehicle No.	, ,			No
	cle Not known	vn		No
No tow or Going ahead North South On main carriageway - not in Mid junction - on roundabout No skidding, jack- Northumbria 15 3 172915 1 Car articulation other East West restricted lane or on main road knifing or overturning None carriageway None impact traced contacted not hit registered vehicle No.	icle Not known	wn		No
No tow or Going ahead North South On main carriageway - not in Mid junction - on roundabout No skidding, jack- No ta foreign	SIC INCUMINATION II		\rightarrow	INC
Northumbria 15 3 172915 2 Car articulation other East West restricted lane or on main road knifing or overturning None carriageway None Back e 38 contacted Other NE34 9HS registered vehicle New Programment of the Ness of t	cle Not known	vn		No
No tow or Going ahead North South On main carriageway - not in Mid junction - on roundabout No skidding, jack- Northumbria 15 3 172915 4 Car articulation other East West restricted lane or on main road shifting or overturning None carriageway None impact Male 52 requested Other registered vehicle we	Journey as part of icle work	as part of		No

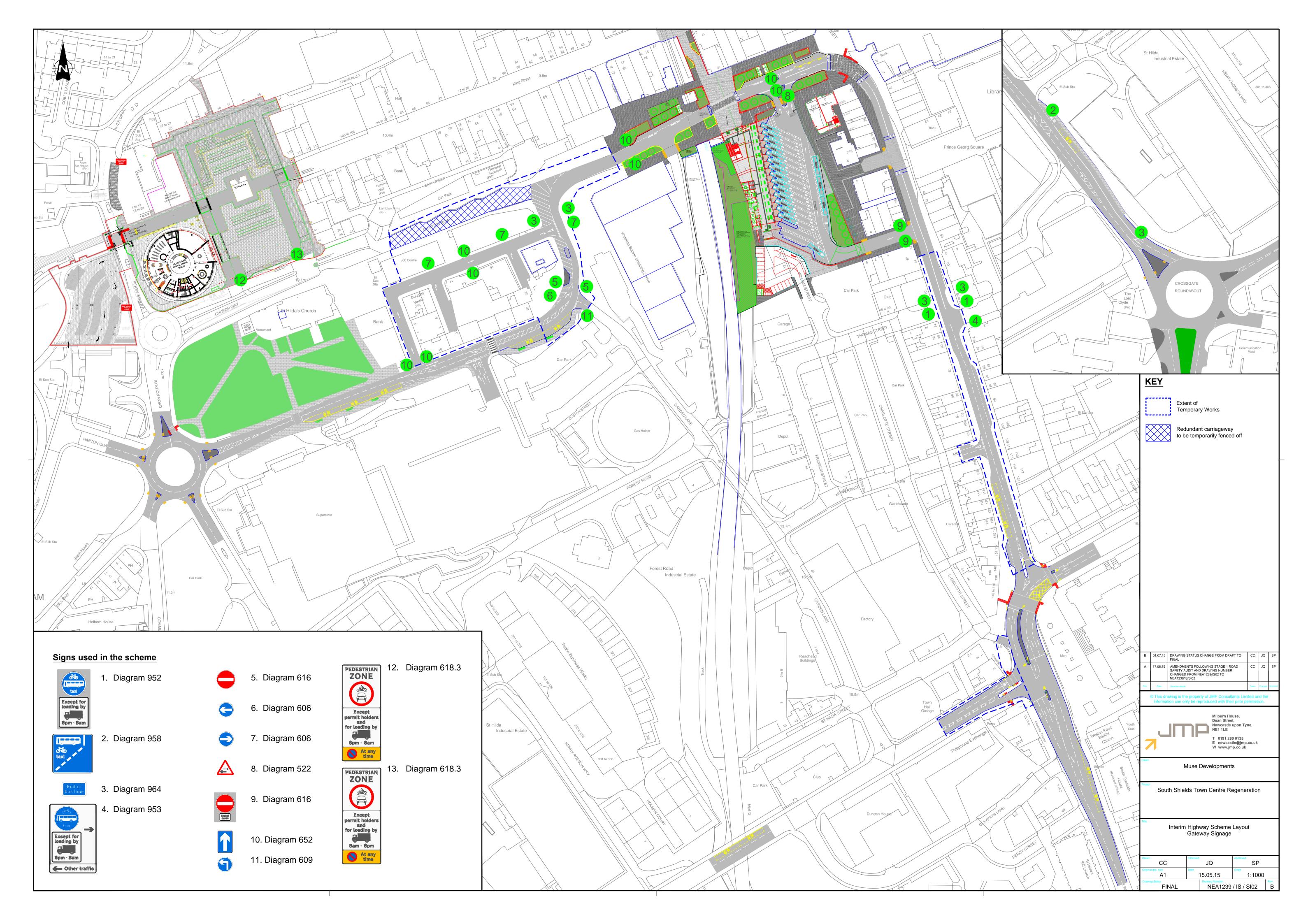
Appendix B

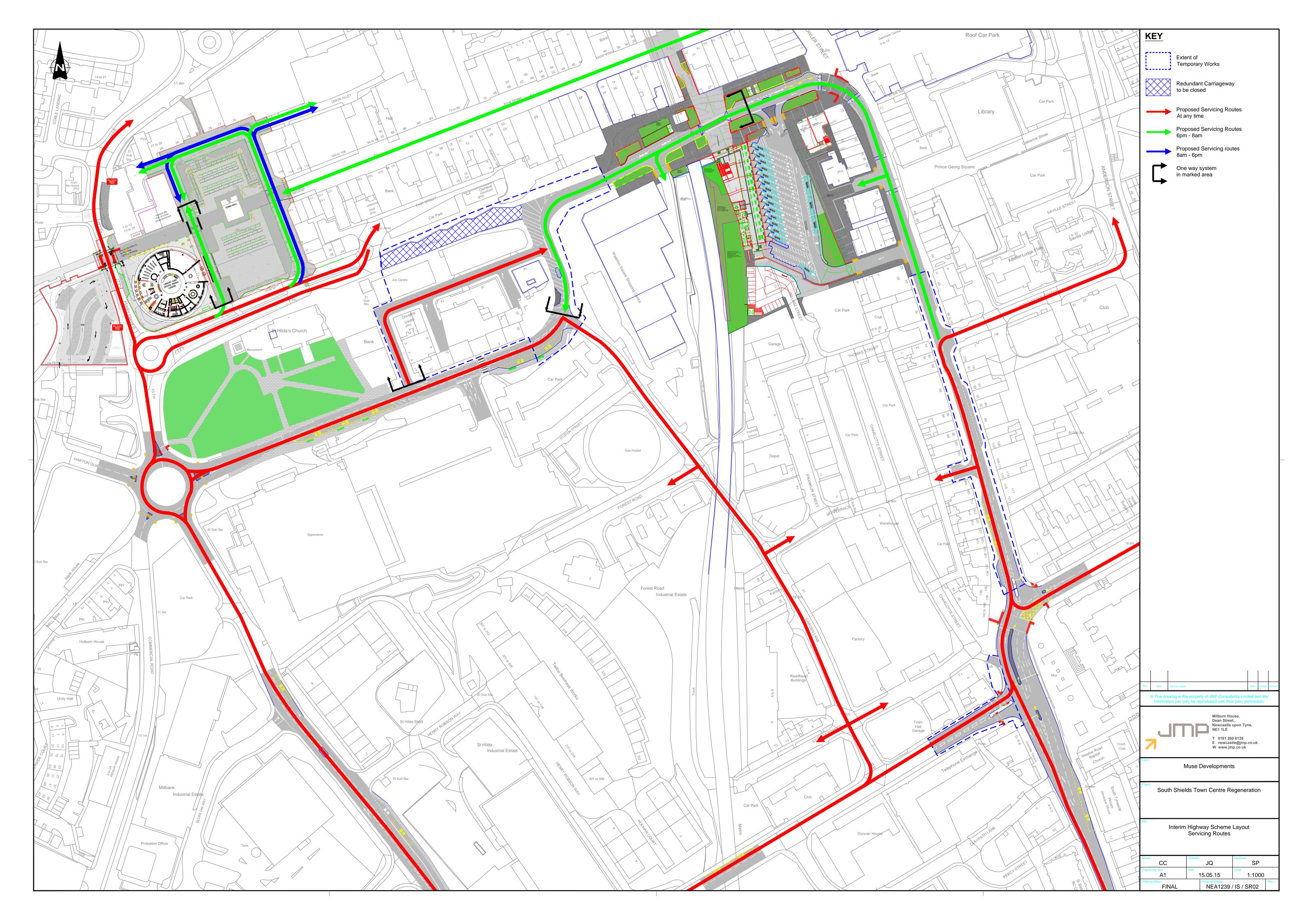
PROPOSED SCHEME DRAWINGS



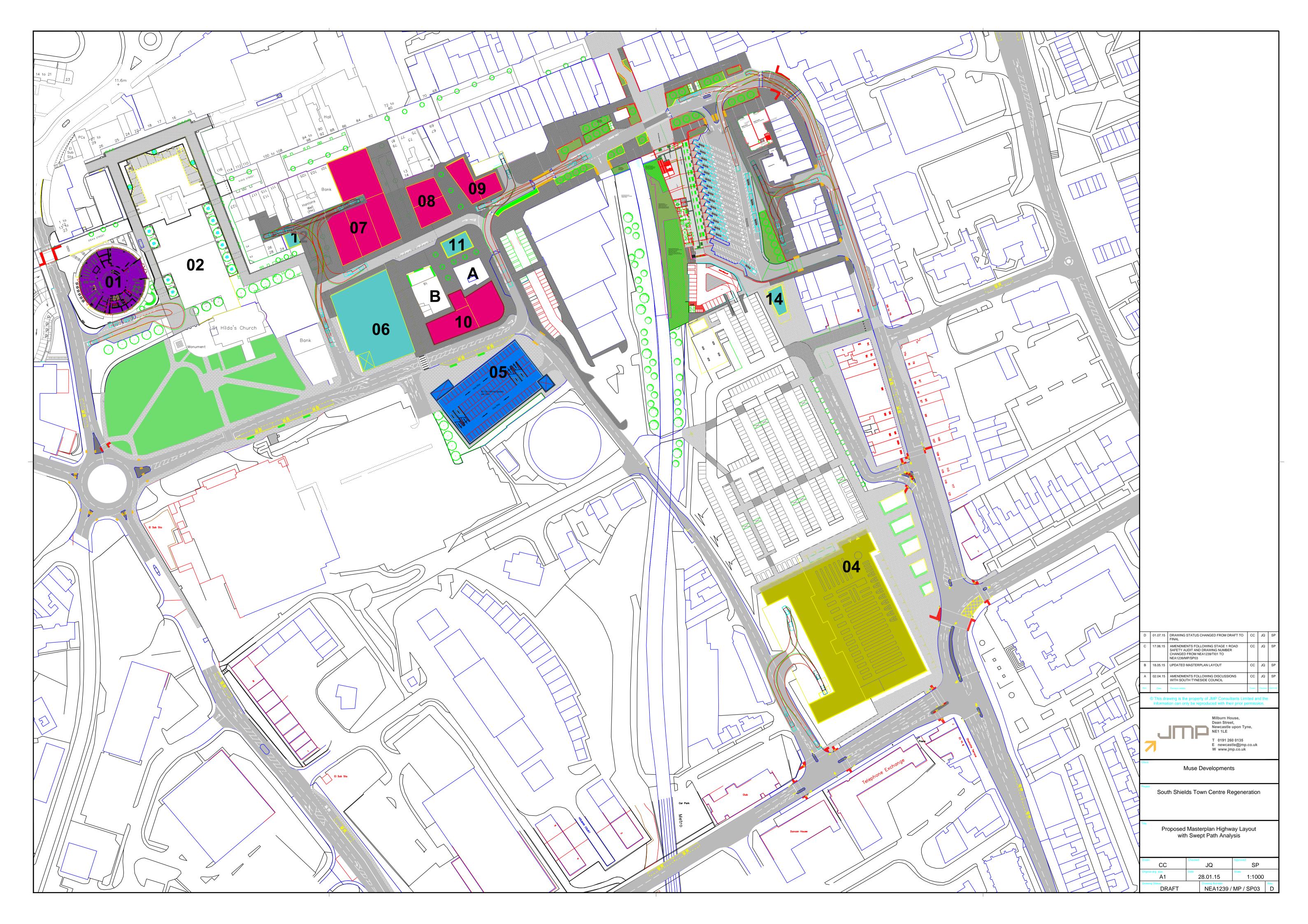


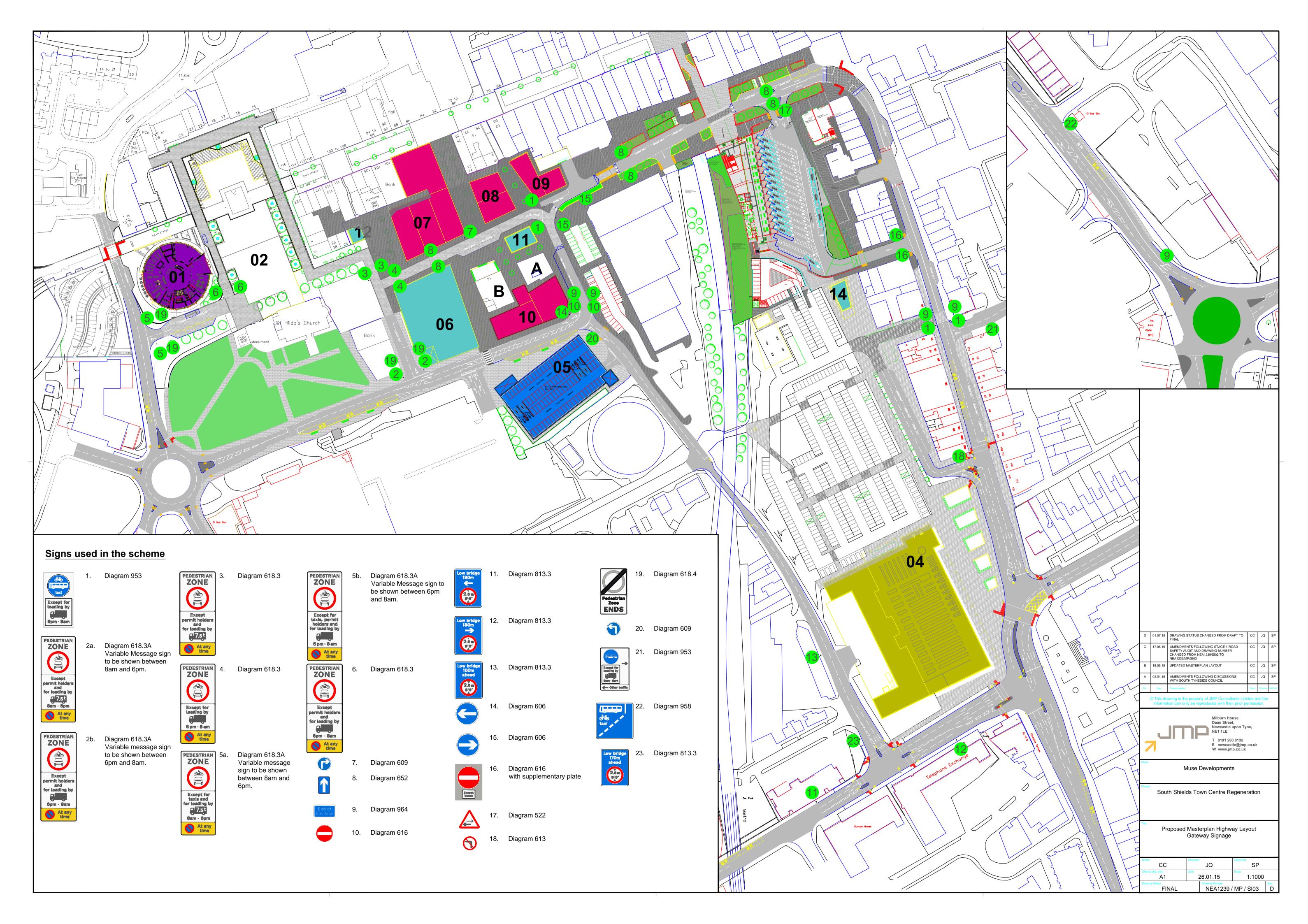














Appendix C

TRICS OUTPUT

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL

Category : I - SHOPPING CENTRE - LOCAL SHOPS

MULTI-MODAL VEHICLES

Selected regions and areas:

EAST MIDLANDS DS **DERBYSHIRE** 1 days LE LEICESTERSHIRE 1 days NR NORTHAMPTONSHIRE 1 days WEST MIDLANDS 06 **SHROPSHIRE** SH 1 days WM WEST MIDLANDS 2 days 80 **NORTH WEST**

CH CHESHIRE 2 days

09 NORTH

TV TEES VALLEY 1 days TYNE & WEAR 2 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: Gross floor area

Actual Range: 260 to 1550 (units: sqm) Range Selected by User: 260 to 1890 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/06 to 24/10/13

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:

Monday 1 days
Tuesday 3 days
Wednesday 4 days
Thursday 3 days

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

Selected survey types:

Manual count 11 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 3
Neighbourhood Centre (PPS6 Local Centre) 7

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:

Commercial Zone 1
Residential Zone 10

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.

TRICS 7.1.2 270814 B16.52 (C) 2014 JMP Consultants Ltd on behalf of the TRICS Consortium Monday 08/12/14 Retail - Local Shops Weekday Page 2

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

Filtering Stage 3 selection:

Use Class:

A1 7 days

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

Population within 1 mile:

5,001 to 10,000	1 days
10,001 to 15,000	2 days
15,001 to 20,000	2 days
20,001 to 25,000	2 days
25,001 to 50,000	4 days

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

Population within 5 miles:

25,001 to 50,000	1 days
100,001 to 125,000	3 days
125,001 to 250,000	3 days
250,001 to 500,000	4 days

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

Car ownership within 5 miles:

0.6 to 1.0	5 days
1.1 to 1.5	6 days

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

Petrol filling station:

Included in the survey count	0 days
Excluded from count or no filling station	11 days

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

Travel Plan:

No 11 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 CH-01-I-02 LOCAL SHOPS CHESHIRE

CHRISTLETON ROAD BOUGHTON HEATH

CHESTER

Neighbourhood Centre (PPS6 Local Centre)

Residential Zone

Total Gross floor area: 260 sqm

Survey date: TUESDAY 15/05/12 Survey Type: MANUAL

2 CH-01-I-03 LOCAL SHOPS CHESHIRE

MILL LANE BACHE CHESTER

Neighbourhood Centre (PPS6 Local Centre)

Residential Zone

Total Gross floor area: 365 sqm

Survey date: THURSDAY 17/05/12 Survey Type: MANUAL

3 DS-01-I-01 LOCAL SHOPS DERBYSHIRE

STONELOW ROAD HOLMESDALE DRONFIELD

Neighbourhood Centre (PPS6 Local Centre)

Residential Zone

Total Gross floor area: 1130 sqm

Survey date: WEDNESDAY 21/06/06 Survey Type: MANUAL

4 LE-01-I-01 LOCAL SHOPS LEICESTERSHIRE

RYDER ROAD BRAUNSTONE FRITH LEICESTER Edge of Town

Edge of Town
Residential Zone
Total Gross floor area:

Total Gross floor area: 606 sqm Survey date: WEDNESDAY 26/09/12

Survey date: WEDNESDAY 26/09/12 Survey Type: MANUAL NR-01-I-01 LOCAL SHOPS NORTHAMPTONSHIRE

OCCUPATION ROAD

CORBY

Neighbourhood Centre (PPS6 Local Centre)

Residential Zone

Total Gross floor area: 755 sqm

Survey date: WEDNESDAY 19/11/08 Survey Type: MANUAL

SH-01-I-02 LOCAL SHOPS SHROPSHIRE

WREKIN DRIVE DONNINGTON TELFORD Edge of Town Residential Zone

Total Gross floor area: 900 sqm

Survey date: THURSDAY 24/10/13 Survey Type: MANUAL

7 TV-01-I-04 LOCAL SHOPS TEES VALLÉY

CARGO FLEET LANE

ORMESBY

MIDDLESBROUGH

Neighbourhood Centre (PPS6 Local Centre)

Residential Zone

Total Gross floor area: 585 sgm

Survey date: MONDAY 07/10/13 Survey Type: MANUAL

TRICS 7.1.2 270814 B16.52 (C) 2014 JMP Consultants Ltd on behalf of the TRICS Consortium Monday 08/12/14 Retail - Local Shops Weekday Page 4

Licence No: 846406 JMP Consultants Ltd. Bothwell Street Glasgow

LIST OF SITES relevant to selection parameters (Cont.)

TW-01-I-01 LOCAL SHOPS TYNE & WEAR

FARRINGDON ROAD

MARDEN

NORTH SHIELDS

Neighbourhood Centre (PPS6 Local Centre)

Residential Zone

Total Gross floor area: 850 sqm

Survey date: TUESDAY 17/10/06 Survey Type: MANUAL

TW-01-I-02 LOCAL SHOPS TYNE & WEAR

DURHAM ROAD BARNES PARK SUNDERLAND

Neighbourhood Centre (PPS6 Local Centre)

Residential Zone

540 sqm Total Gross floor area:

Survey date: WEDNESDAY 21/11/12 Survey Type: MANUAL

WM-01-I-01 10 WEST MIDLANDS LOCAL SHOPS

HOLYHEAD ROAD

COVENTRY

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Gross floor area: 1550 sqm

Survey date: THURSDAY 27/09/07 Survey Type: MANUAL

WEST MIDLANDS 11 WM-01-I-02 LOCAL SHOPS

MARSHALL LAKE ROAD

SHIRLEY SOLIHULL Edge of Town Commercial Zone

Total Gross floor area: 515 sqm

Survey date: TUESDAY 18/09/07 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.

JMP Consultants Ltd. Bothwell Street Glasgow

TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS

MULTI-MODAL VEHICLES Calculation factor: 100 sgm

BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES)		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	1	540	1.296	1	540	1.296	1	540	2.592
07:00 - 08:00	11	732	4.444	11	732	4.084	11	732	8.528
08:00 - 09:00	11	732	5.400	11	732	5.002	11	732	10.402
09:00 - 10:00	11	732	5.747	11	732	5.673	11	732	11.420
10:00 - 11:00	11	732	6.095	11	732	5.524	11	732	11.619
11:00 - 12:00	11	732	6.045	11	732	6.418	11	732	12.463
12:00 - 13:00	11	732	7.262	11	732	6.691	11	732	13.953
13:00 - 14:00	11	732	5.760	11	732	5.698	11	732	11.458
14:00 - 15:00	11	732	4.916	11	732	4.804	11	732	9.720
15:00 - 16:00	11	732	5.425	11	732	5.884	11	732	11.309
16:00 - 17:00	11	732	5.722	11	732	6.107	11	732	11.829
17:00 - 18:00	11	732	6.033	11	732	6.008	11	732	12.041
18:00 - 19:00	11	732	5.909	11	732	6.020	11	732	11.929
19:00 - 20:00	9	826	4.656	9	826	4.589	9	826	9.245
20:00 - 21:00	7	779	3.320	7	779	3.779	7	779	7.099
21:00 - 22:00	4	658	4.143	4	658	4.903	4	658	9.046
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			82.173			82.480			164.653

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

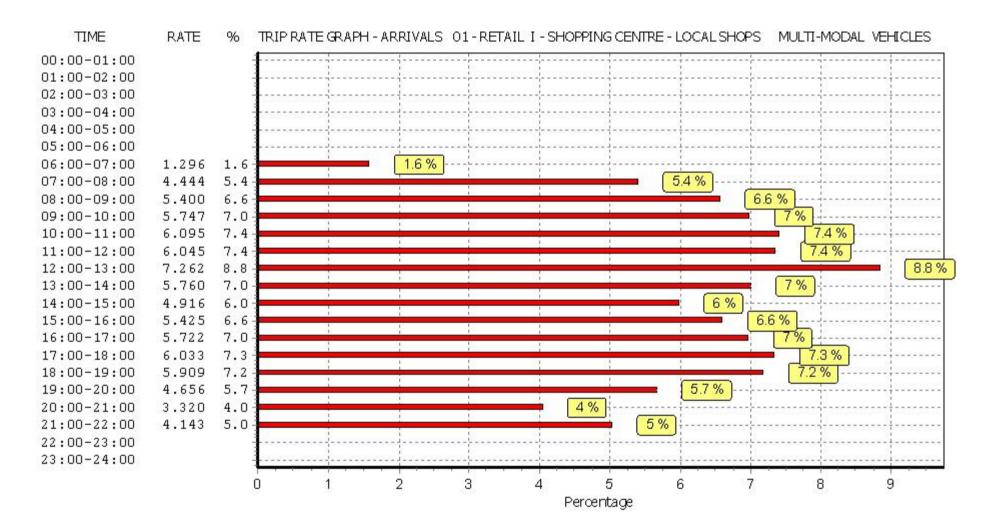
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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

Parameter summary

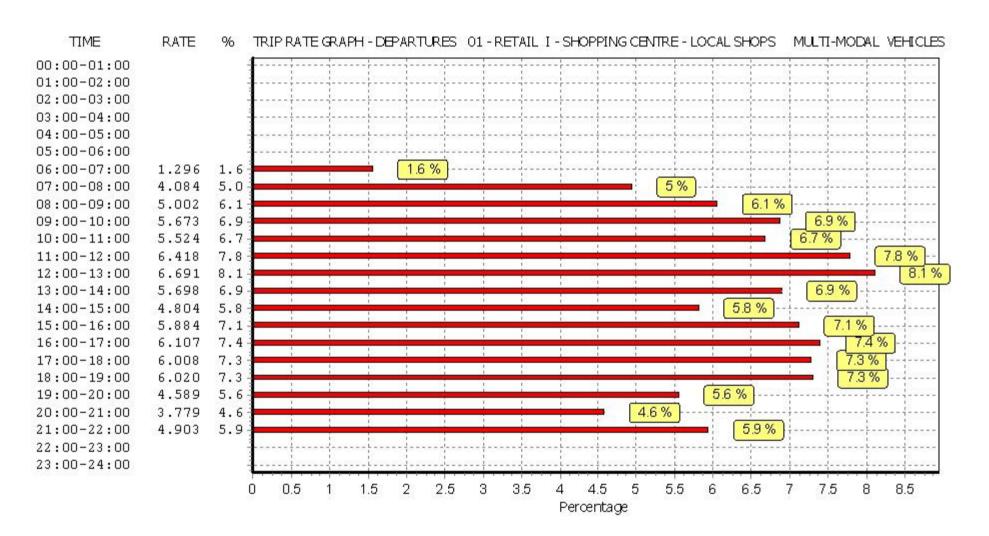
Trip rate parameter range selected: 260 - 1550 (units: sqm) Survey date date range: 01/01/06 - 24/10/13

Number of weekdays (Monday-Friday): 11
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 1

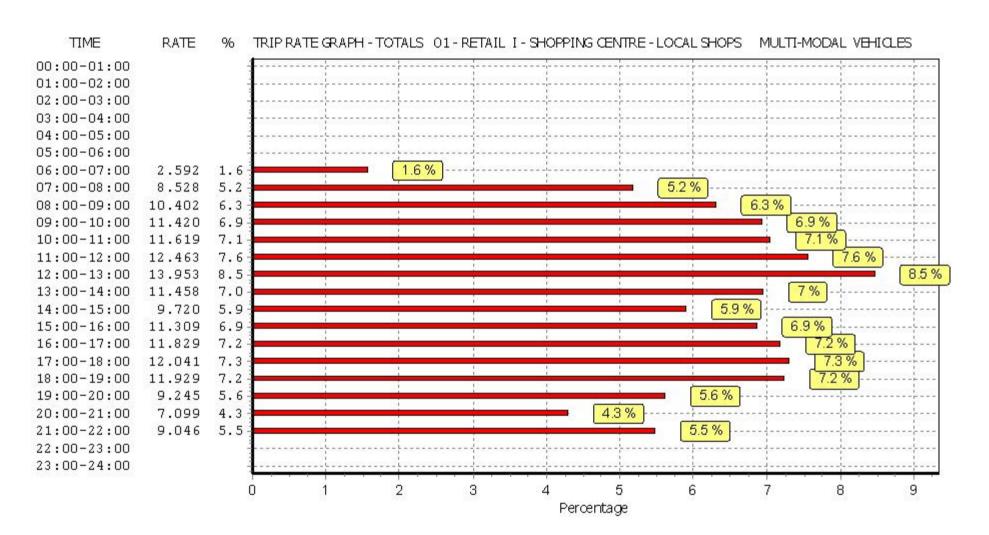
TRICS 7.1.2 270814 B16.52 (C) 2014 JMP Consultants Ltd on behalf of the TRICS Consortium Retail - Local Shops Weekday



TRICS 7.1.2 270814 B16.52 (C) 2014 JMP Consultants Ltd on behalf of the TRICS Consortium Retail - Local Shops Weekday



JMP Consultants Ltd. Bothwell Street Glasgow



Licence No: 846406

JMP Consultants Ltd. Bothwell Street Glasgow

TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS

MULTI-MODAL TAXIS
Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES		TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	1	540	0.000	1	540	0.000	1	540	0.000
07:00 - 08:00	11	732	0.000	11	732	0.000	11	732	0.000
08:00 - 09:00	11	732	0.062	11	732	0.062	11	732	0.124
09:00 - 10:00	11	732	0.124	11	732	0.099	11	732	0.223
10:00 - 11:00	11	732	0.074	11	732	0.099	11	732	0.173
11:00 - 12:00	11	732	0.124	11	732	0.124	11	732	0.248
12:00 - 13:00	11	732	0.112	11	732	0.099	11	732	0.211
13:00 - 14:00	11	732	0.037	11	732	0.037	11	732	0.074
14:00 - 15:00	11	732	0.074	11	732	0.062	11	732	0.136
15:00 - 16:00	11	732	0.099	11	732	0.099	11	732	0.198
16:00 - 17:00	11	732	0.050	11	732	0.037	11	732	0.087
17:00 - 18:00	11	732	0.037	11	732	0.050	11	732	0.087
18:00 - 19:00	11	732	0.112	11	732	0.074	11	732	0.186
19:00 - 20:00	9	826	0.013	9	826	0.081	9	826	0.094
20:00 - 21:00	7	779	0.018	7	779	0.018	7	779	0.036
21:00 - 22:00	4	658	0.038	4	658	0.000	4	658	0.038
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.974			0.941			1.915

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.

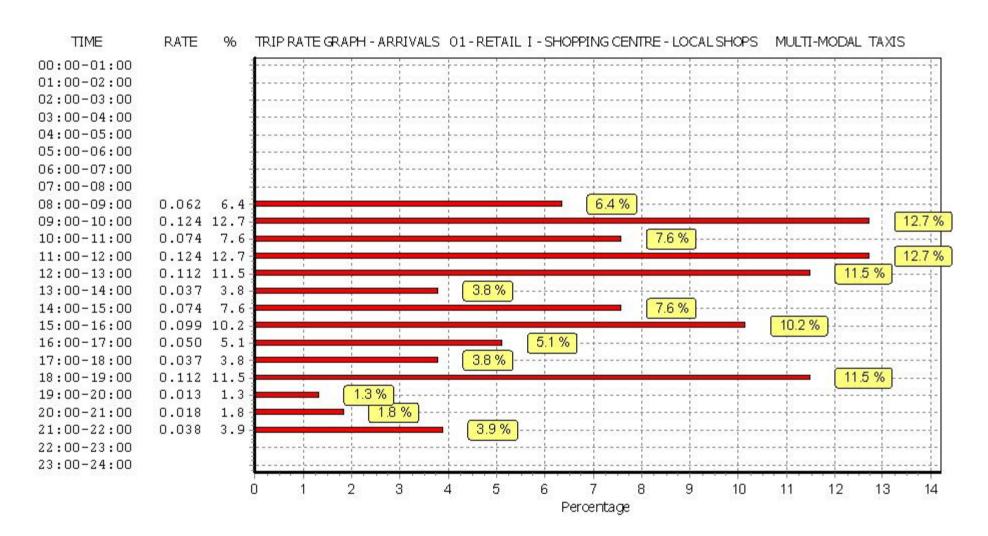
Parameter summary

Trip rate parameter range selected: 260 - 1550 (units: sqm) Survey date date range: 01/01/06 - 24/10/13

Number of weekdays (Monday-Friday): 11
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 1

Retail - Local Shops Weekday

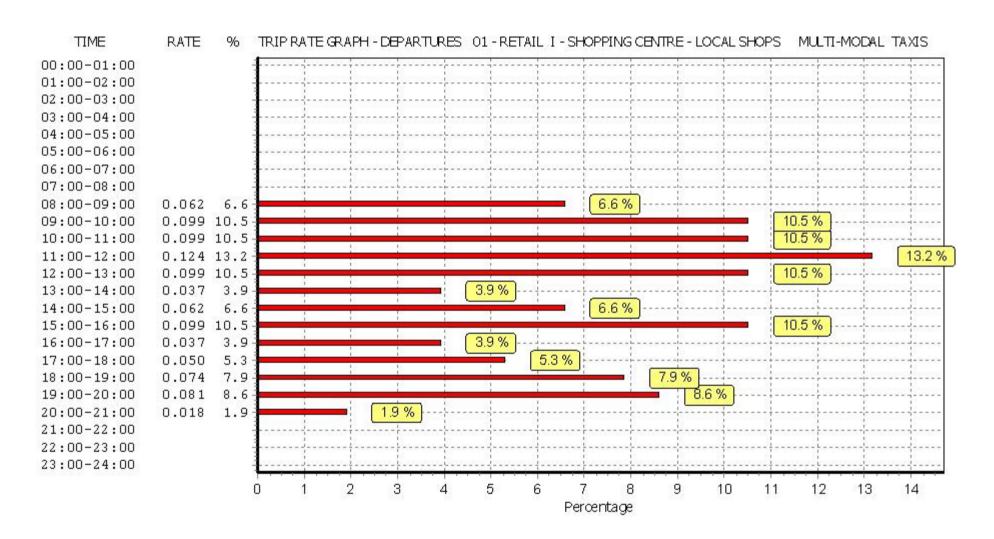
JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406



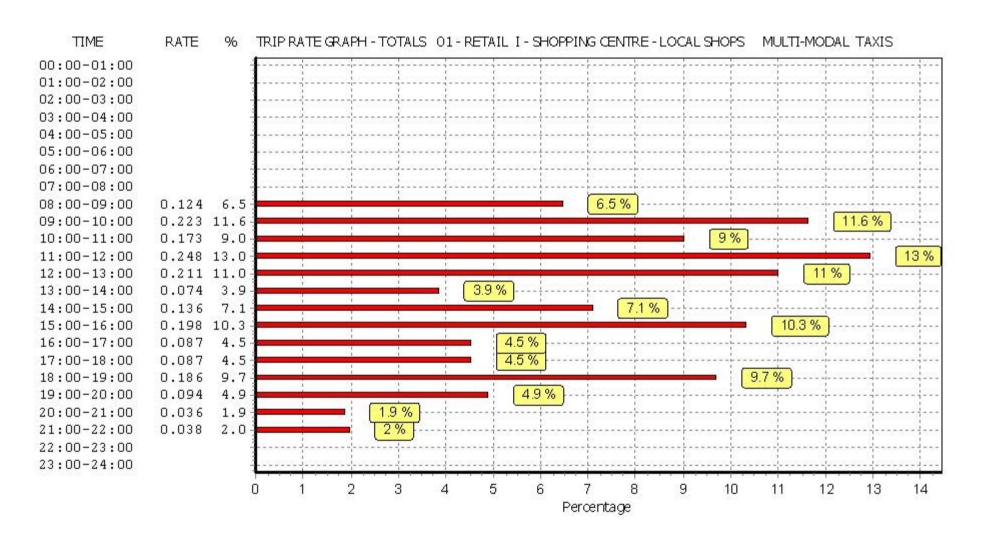
Retail - Local Shops Weekday

JMP Consultants Ltd. Bothwell Street Glasgow

Licence No: 846406



TRICS 7.1.2 270814 B16.52 (C) 2014 JMP Consultants Ltd on behalf of the TRICS Consortium Retail - Local Shops Weekday
JMP Consultants Ltd. Bothwell Street Glasgow



JMP Consultants Ltd. Bothwell Street Glasgow

TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS

MULTI-MODAL OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES	ò		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	1	540	0.000	1	540	0.000	1	540	0.000
07:00 - 08:00	11	732	0.074	11	732	0.037	11	732	0.111
08:00 - 09:00	11	732	0.124	11	732	0.099	11	732	0.223
09:00 - 10:00	11	732	0.174	11	732	0.186	11	732	0.360
10:00 - 11:00	11	732	0.137	11	732	0.087	11	732	0.224
11:00 - 12:00	11	732	0.124	11	732	0.124	11	732	0.248
12:00 - 13:00	11	732	0.124	11	732	0.149	11	732	0.273
13:00 - 14:00	11	732	0.137	11	732	0.161	11	732	0.298
14:00 - 15:00	11	732	0.087	11	732	0.074	11	732	0.161
15:00 - 16:00	11	732	0.074	11	732	0.074	11	732	0.148
16:00 - 17:00	11	732	0.062	11	732	0.062	11	732	0.124
17:00 - 18:00	11	732	0.037	11	732	0.050	11	732	0.087
18:00 - 19:00	11	732	0.012	11	732	0.050	11	732	0.062
19:00 - 20:00	9	826	0.013	9	826	0.013	9	826	0.026
20:00 - 21:00	7	779	0.000	7	779	0.000	7	779	0.000
21:00 - 22:00	4	658	0.038	4	658	0.038	4	658	0.076
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.217			1.204			2.421

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.

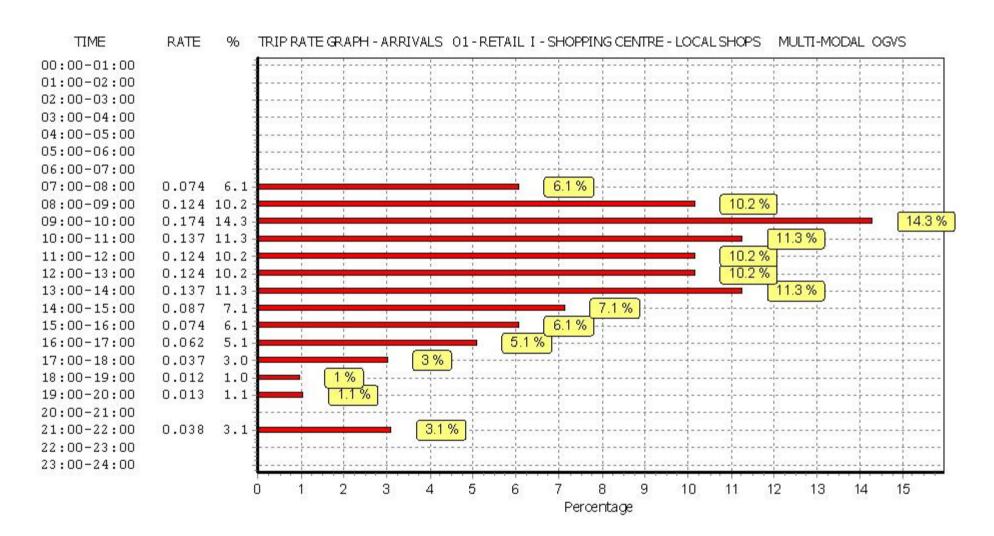
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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: 260 - 1550 (units: sqm) Survey date date range: 01/01/06 - 24/10/13

Number of weekdays (Monday-Friday): 11
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 1

TRICS 7.1.2 270814 B16.52 (C) 2014 JMP Consultants Ltd on behalf of the TRICS Consortium Retail - Local Shops Weekday
JMP Consultants Ltd. Bothwell Street Glasgow

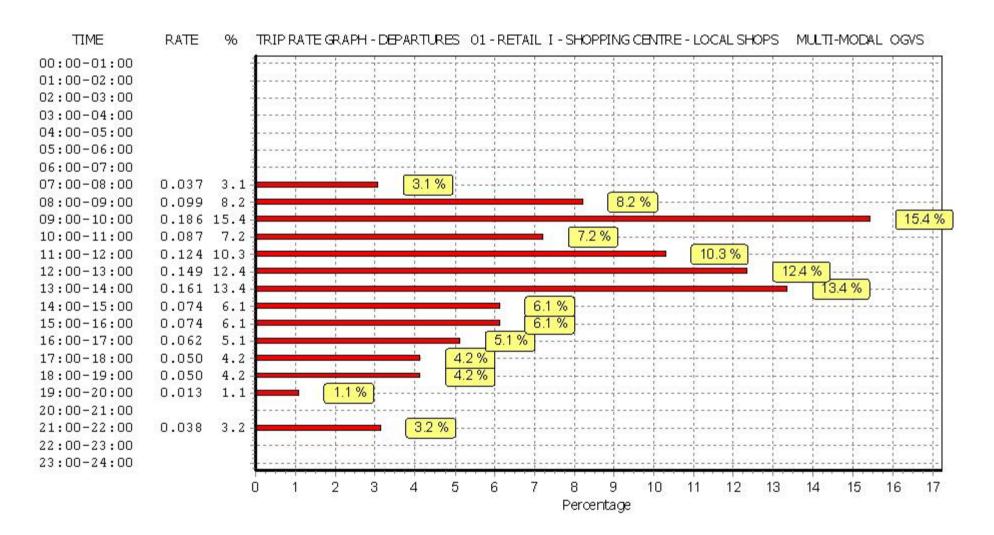


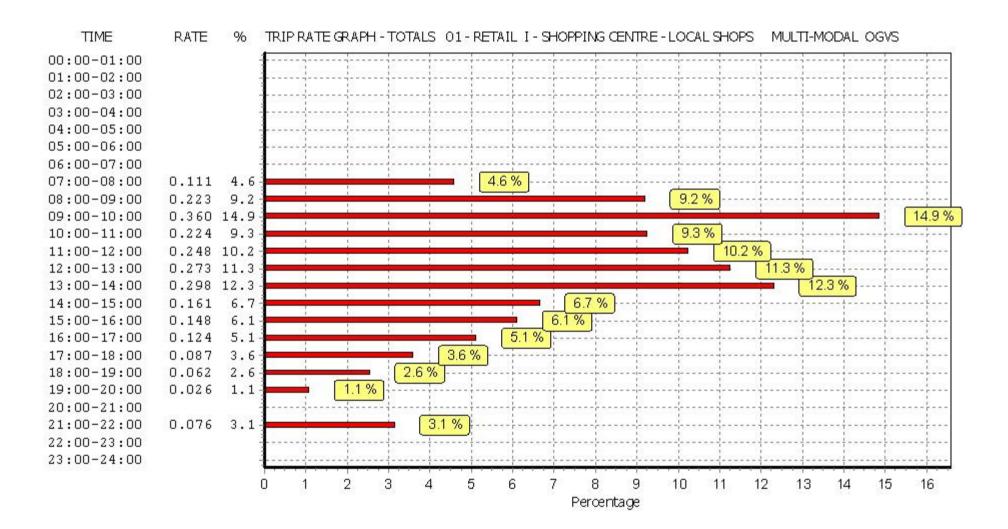
Monday 08/12/14

Page 15

Retail - Local Shops Weekday

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406





JMP Consultants Ltd. Bothwell Street Glasgow

TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS

MULTI-MODAL PSVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES	ò		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	1	540	0.000	1	540	0.000	1	540	0.000
07:00 - 08:00	11	732	0.050	11	732	0.050	11	732	0.100
08:00 - 09:00	11	732	0.000	11	732	0.000	11	732	0.000
09:00 - 10:00	11	732	0.000	11	732	0.000	11	732	0.000
10:00 - 11:00	11	732	0.025	11	732	0.025	11	732	0.050
11:00 - 12:00	11	732	0.012	11	732	0.012	11	732	0.024
12:00 - 13:00	11	732	0.025	11	732	0.012	11	732	0.037
13:00 - 14:00	11	732	0.012	11	732	0.025	11	732	0.037
14:00 - 15:00	11	732	0.012	11	732	0.000	11	732	0.012
15:00 - 16:00	11	732	0.012	11	732	0.025	11	732	0.037
16:00 - 17:00	11	732	0.012	11	732	0.012	11	732	0.024
17:00 - 18:00	11	732	0.000	11	732	0.000	11	732	0.000
18:00 - 19:00	11	732	0.000	11	732	0.000	11	732	0.000
19:00 - 20:00	9	826	0.000	9	826	0.000	9	826	0.000
20:00 - 21:00	7	779	0.000	7	779	0.000	7	779	0.000
21:00 - 22:00	4	658	0.000	4	658	0.000	4	658	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.160			0.161			0.321

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.

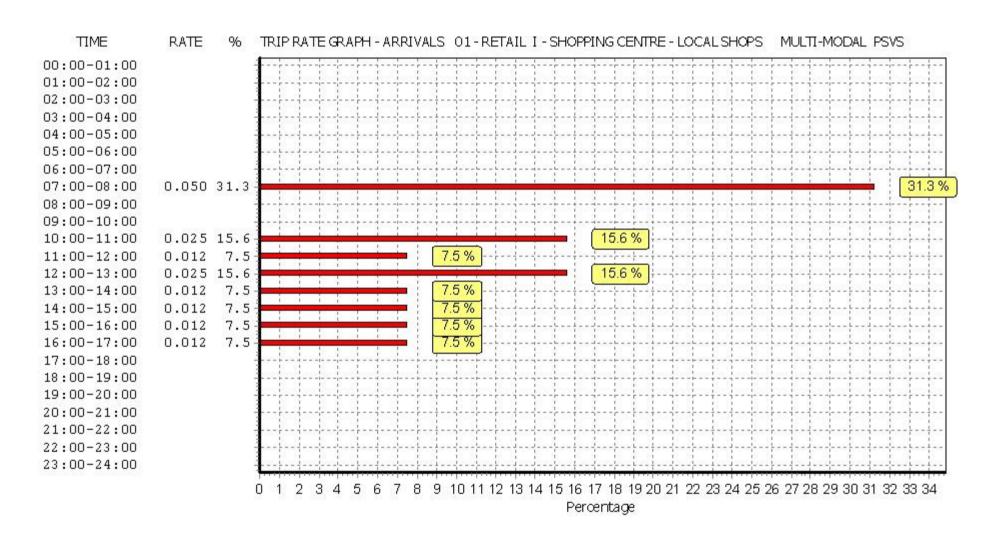
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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

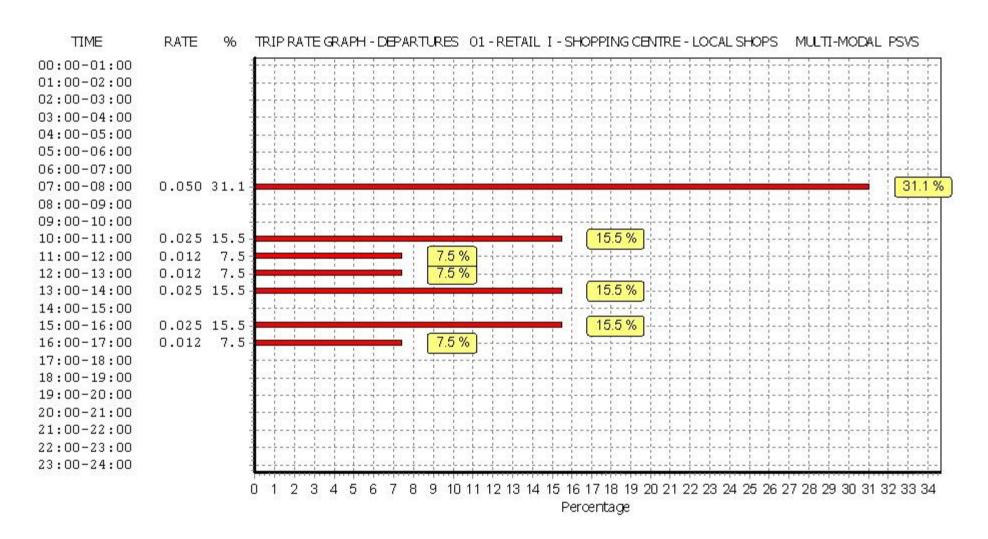
Trip rate parameter range selected: 260 - 1550 (units: sqm) Survey date date range: 01/01/06 - 24/10/13

Number of weekdays (Monday-Friday): 11
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 1

JMP Consultants Ltd. Bothwell Street Glasgow

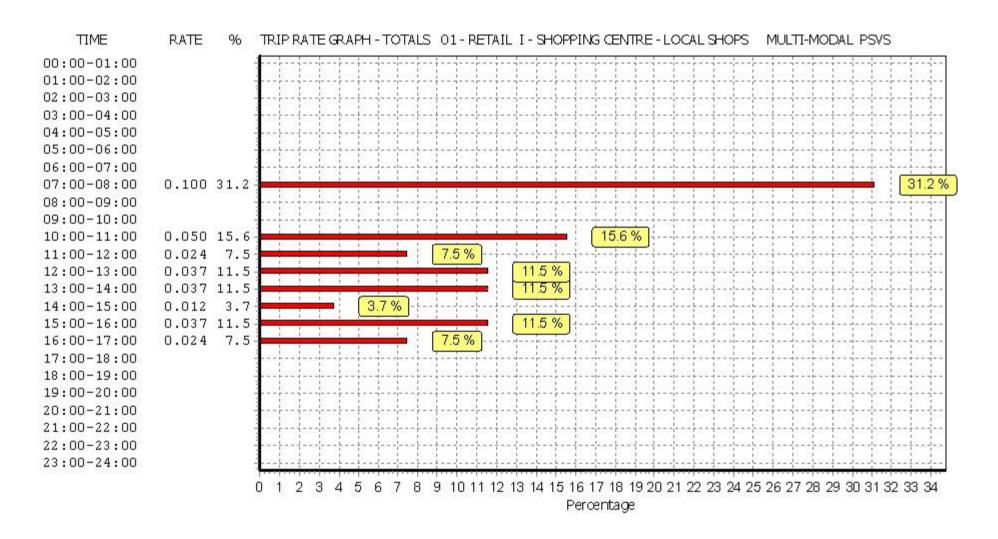


Licence No: 846406



JMP Consultants Ltd. Bothwell Street Glasgow

Licence No: 846406



JMP Consultants Ltd. Bothwell Street Glasgow

TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS

MULTI-MODAL CYCLISTS Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES)		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	1	540	0.185	1	540	0.000	1	540	0.185
07:00 - 08:00	11	732	0.261	11	732	0.199	11	732	0.460
08:00 - 09:00	11	732	0.137	11	732	0.137	11	732	0.274
09:00 - 10:00	11	732	0.124	11	732	0.149	11	732	0.273
10:00 - 11:00	11	732	0.137	11	732	0.124	11	732	0.261
11:00 - 12:00	11	732	0.149	11	732	0.099	11	732	0.248
12:00 - 13:00	11	732	0.062	11	732	0.099	11	732	0.161
13:00 - 14:00	11	732	0.149	11	732	0.137	11	732	0.286
14:00 - 15:00	11	732	0.236	11	732	0.248	11	732	0.484
15:00 - 16:00	11	732	0.273	11	732	0.248	11	732	0.521
16:00 - 17:00	11	732	0.298	11	732	0.199	11	732	0.497
17:00 - 18:00	11	732	0.074	11	732	0.137	11	732	0.211
18:00 - 19:00	11	732	0.335	11	732	0.348	11	732	0.683
19:00 - 20:00	9	826	0.135	9	826	0.175	9	826	0.310
20:00 - 21:00	7	779	0.018	7	779	0.073	7	779	0.091
21:00 - 22:00	4	658	0.228	4	658	0.190	4	658	0.418
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.801			2.562			5.363

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.

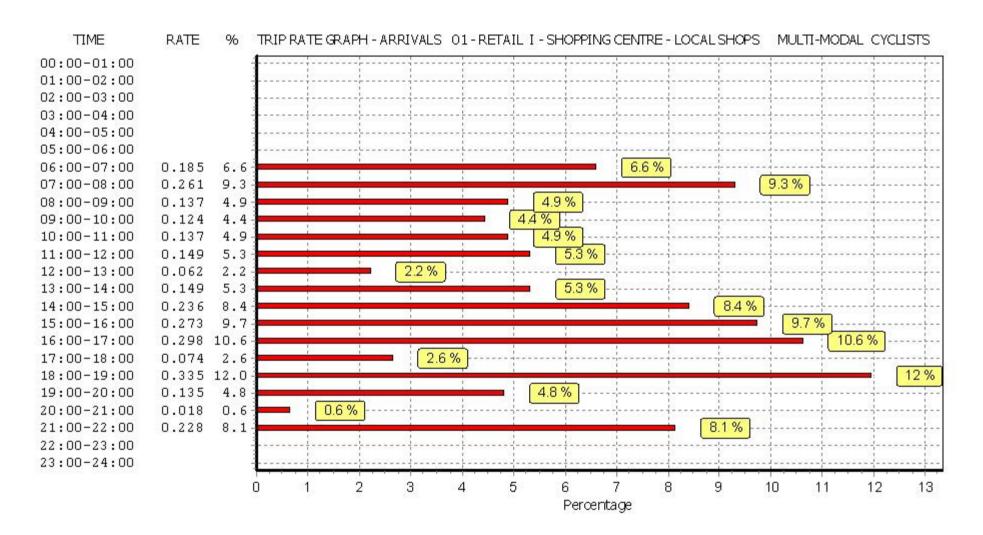
Parameter summary

Trip rate parameter range selected: 260 - 1550 (units: sqm) Survey date date range: 01/01/06 - 24/10/13

Number of weekdays (Monday-Friday): 11
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 1

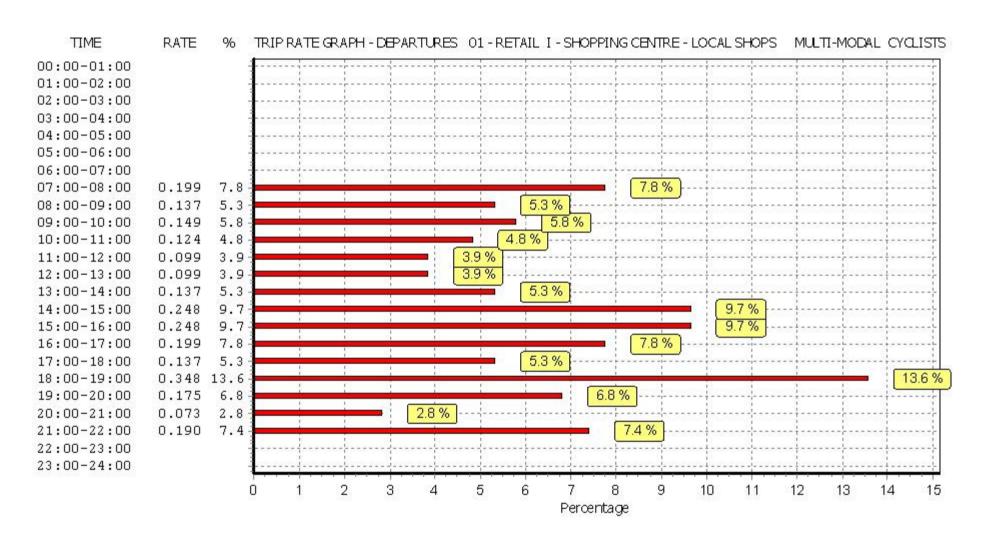
TRICS 7.1.2 270814 B16.52 (C) 2014 JMP Consultants Ltd on behalf of the TRICS Consortium Retail - Local Shops Weekday
JMP Consultants Ltd. Bothwell Street Glasgow

sgow Licence No: 846406

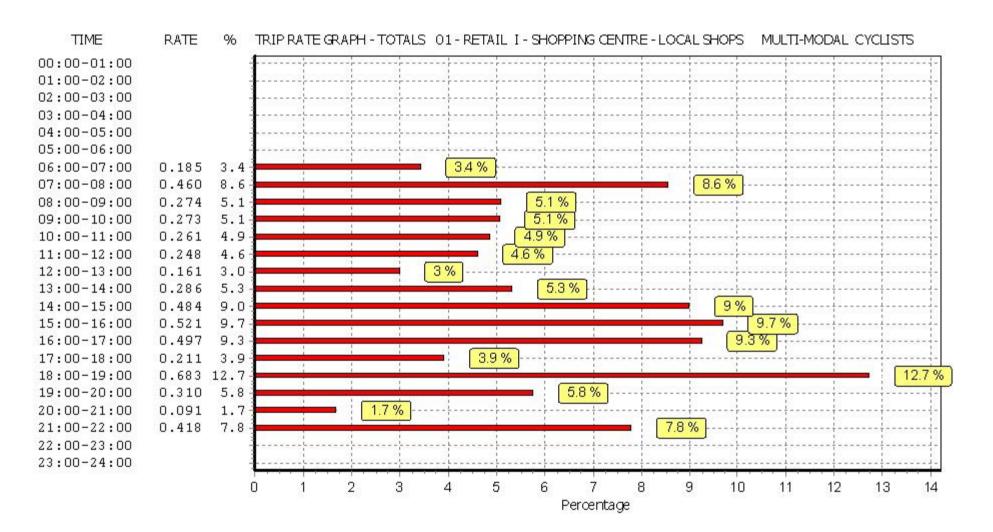


TRICS 7.1.2 270814 B16.52 (C) 2014 JMP Consultants Ltd on behalf of the TRICS Consortium Retail - Local Shops Weekday
JMP Consultants Ltd. Bothwell Street Glasgow

Licence No: 846406



TRICS 7.1.2 270814 B16.52 (C) 2014 JMP Consultants Ltd on behalf of the TRICS Consortium Retail - Local Shops Weekday



JMP Consultants Ltd. Bothwell Street Glasgow

TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS

MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES)		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	1	540	1.481	1	540	1.481	1	540	2.962
07:00 - 08:00	11	732	5.350	11	732	4.779	11	732	10.129
08:00 - 09:00	11	732	6.790	11	732	6.169	11	732	12.959
09:00 - 10:00	11	732	6.889	11	732	6.691	11	732	13.580
10:00 - 11:00	11	732	7.560	11	732	6.765	11	732	14.325
11:00 - 12:00	11	732	7.299	11	732	7.684	11	732	14.983
12:00 - 13:00	11	732	9.111	11	732	8.429	11	732	17.540
13:00 - 14:00	11	732	6.927	11	732	6.765	11	732	13.692
14:00 - 15:00	11	732	6.244	11	732	6.070	11	732	12.314
15:00 - 16:00	11	732	7.485	11	732	7.634	11	732	15.119
16:00 - 17:00	11	732	7.535	11	732	8.044	11	732	15.579
17:00 - 18:00	11	732	7.498	11	732	7.721	11	732	15.219
18:00 - 19:00	11	732	7.882	11	732	7.969	11	732	15.851
19:00 - 20:00	9	826	5.921	9	826	6.042	9	826	11.963
20:00 - 21:00	7	779	4.311	7	779	4.898	7	779	9.209
21:00 - 22:00	4	658	4.979	4	658	5.777	4	658	10.756
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			103.262			102.918			206.180

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

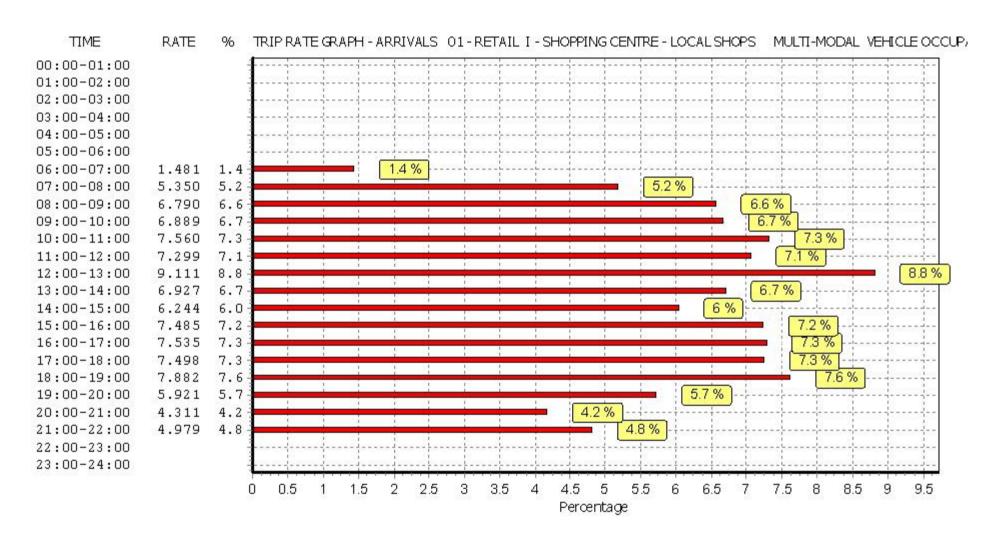
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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

Parameter summary

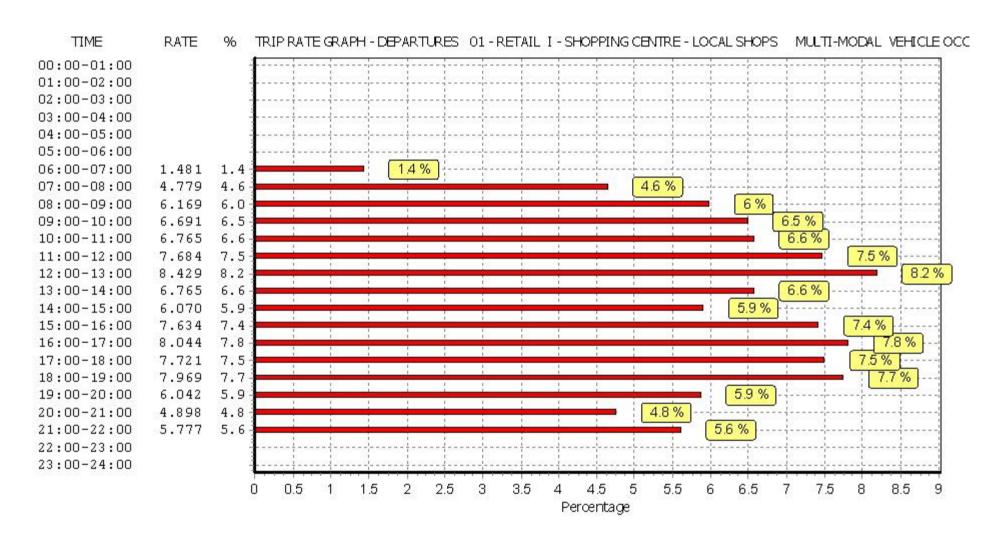
Trip rate parameter range selected: 260 - 1550 (units: sqm) Survey date date range: 01/01/06 - 24/10/13

Number of weekdays (Monday-Friday): 11
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 1

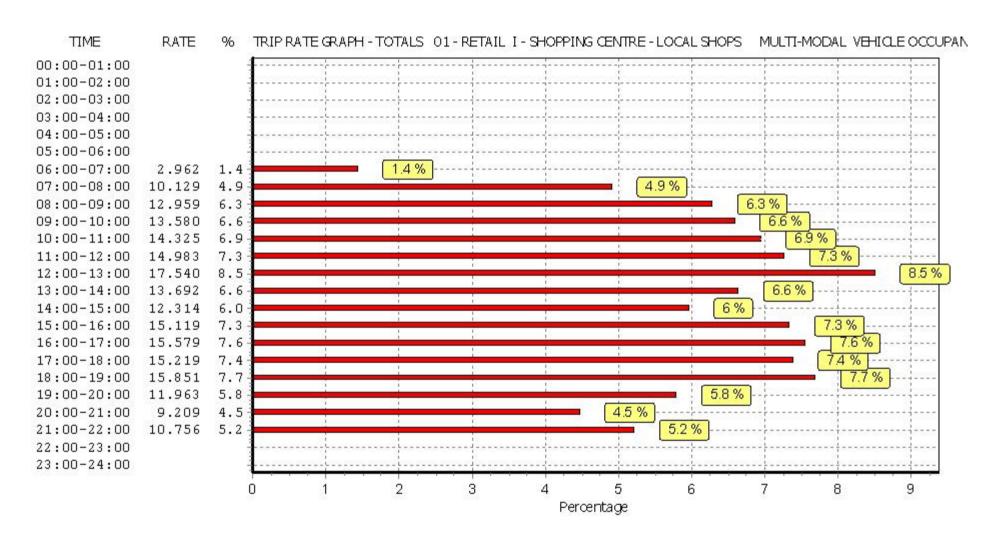
TRICS 7.1.2 270814 B16.52 (C) 2014 JMP Consultants Ltd on behalf of the TRICS Consortium Retail - Local Shops Weekday
JMP Consultants Ltd. Bothwell Street Glasgow



TRICS 7.1.2 270814 B16.52 (C) 2014 JMP Consultants Ltd on behalf of the TRICS Consortium Retail - Local Shops Weekday
JMP Consultants Ltd. Bothwell Street Glasgow



TRICS 7.1.2 270814 B16.52 (C) 2014 JMP Consultants Ltd on behalf of the TRICS Consortium Retail - Local Shops Weekday



JMP Consultants Ltd. Bothwell Street Glasgow

TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS

MULTI-MODAL PEDESTRIANS Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES	ò	TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	1	540	4.259	1	540	3.333	1	540	7.592
07:00 - 08:00	11	732	2.632	11	732	2.085	11	732	4.717
08:00 - 09:00	11	732	5.189	11	732	5.176	11	732	10.365
09:00 - 10:00	11	732	4.146	11	732	3.724	11	732	7.870
10:00 - 11:00	11	732	3.798	11	732	3.463	11	732	7.261
11:00 - 12:00	11	732	3.811	11	732	3.985	11	732	7.796
12:00 - 13:00	11	732	5.933	11	732	5.151	11	732	11.084
13:00 - 14:00	11	732	3.687	11	732	4.183	11	732	7.870
14:00 - 15:00	11	732	3.563	11	732	3.749	11	732	7.312
15:00 - 16:00	11	732	5.946	11	732	5.971	11	732	11.917
16:00 - 17:00	11	732	3.600	11	732	3.786	11	732	7.386
17:00 - 18:00	11	732	3.302	11	732	3.674	11	732	6.976
18:00 - 19:00	11	732	2.929	11	732	3.687	11	732	6.616
19:00 - 20:00	9	826	2.449	9	826	2.543	9	826	4.992
20:00 - 21:00	7	779	1.724	7	779	2.256	7	779	3.980
21:00 - 22:00	4	658	2.128	4	658	2.471	4	658	4.599
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			59.096			59.237			118.333

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: 260 - 1550 (units: sqm) Survey date date range: 01/01/06 - 24/10/13

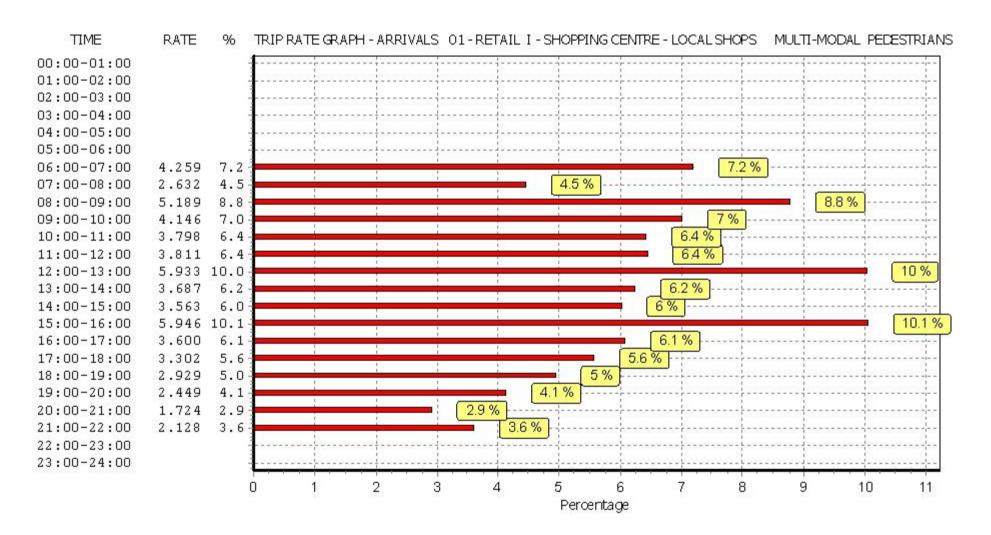
Number of weekdays (Monday-Friday): 11
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 1

Monday 08/12/14

Page 30

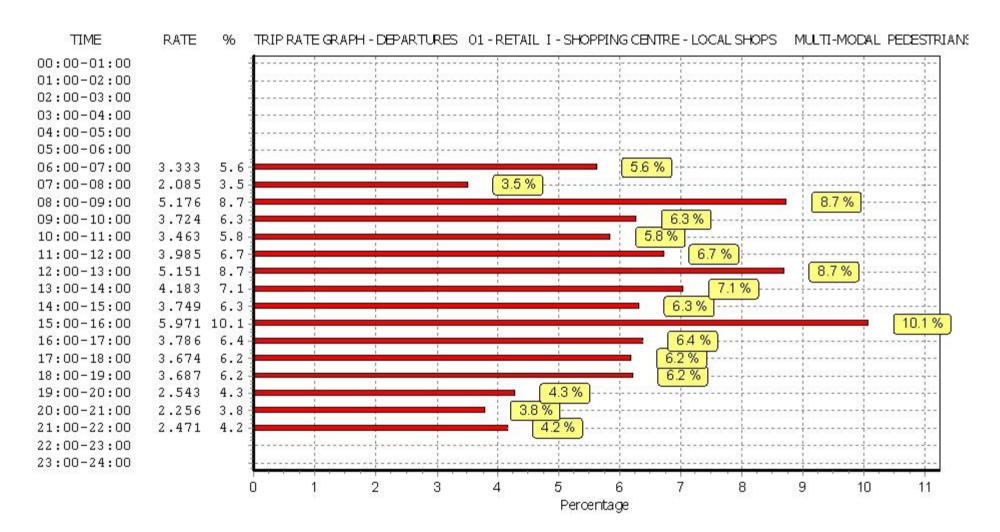
Retail - Local Shops Weekday

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

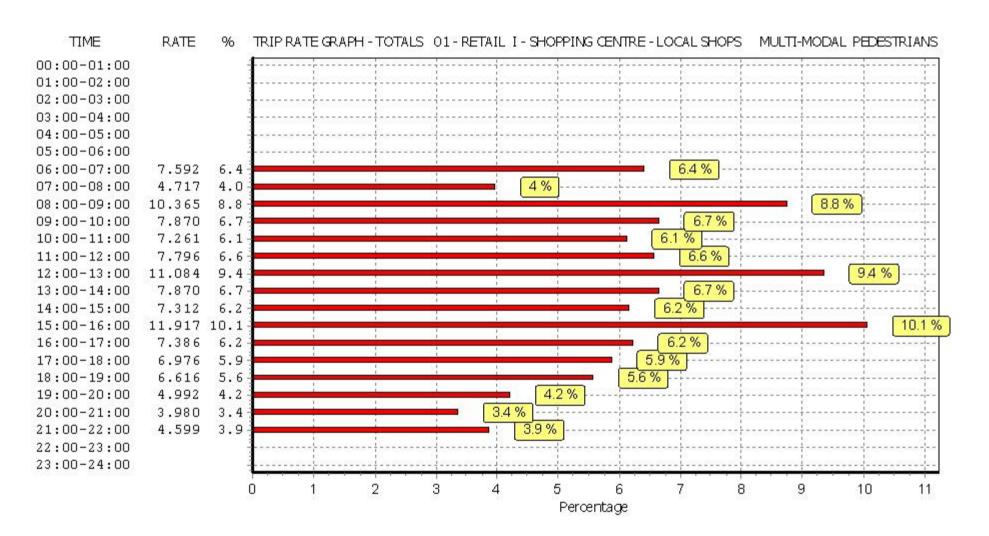


TRICS 7.1.2 270814 B16.52 (C) 2014 JMP Consultants Ltd on behalf of the TRICS Consortium Retail - Local Shops Weekday
JMP Consultants Ltd. Bothwell Street Glasgow

Glasgow Licence No: 846406



TRICS 7.1.2 270814 B16.52 (C) 2014 JMP Consultants Ltd on behalf of the TRICS Consortium Retail - Local Shops Weekday
JMP Consultants Ltd. Bothwell Street Glasgow



JMP Consultants Ltd. Bothwell Street Glasgow

TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS

MULTI-MODAL BUS/TRAM PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			[DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	1	540	0.741	1	540	1.111	1	540	1.852	
07:00 - 08:00	11	732	0.037	11	732	0.137	11	732	0.174	
08:00 - 09:00	11	732	0.050	11	732	0.248	11	732	0.298	
09:00 - 10:00	11	732	0.087	11	732	0.074	11	732	0.161	
10:00 - 11:00	11	732	0.149	11	732	0.112	11	732	0.261	
11:00 - 12:00	11	732	0.323	11	732	0.360	11	732	0.683	
12:00 - 13:00	11	732	0.248	11	732	0.186	11	732	0.434	
13:00 - 14:00	11	732	0.236	11	732	0.174	11	732	0.410	
14:00 - 15:00	11	732	0.161	11	732	0.099	11	732	0.260	
15:00 - 16:00	11	732	0.348	11	732	0.074	11	732	0.422	
16:00 - 17:00	11	732	0.211	11	732	0.174	11	732	0.385	
17:00 - 18:00	11	732	0.199	11	732	0.124	11	732	0.323	
18:00 - 19:00	11	732	0.112	11	732	0.174	11	732	0.286	
19:00 - 20:00	9	826	0.188	9	826	0.108	9	826	0.296	
20:00 - 21:00	7	779	0.092	7	779	0.128	7	779	0.220	
21:00 - 22:00	4	658	0.266	4	658	0.304	4	658	0.570	
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			3.448			3.587			7.035	

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.

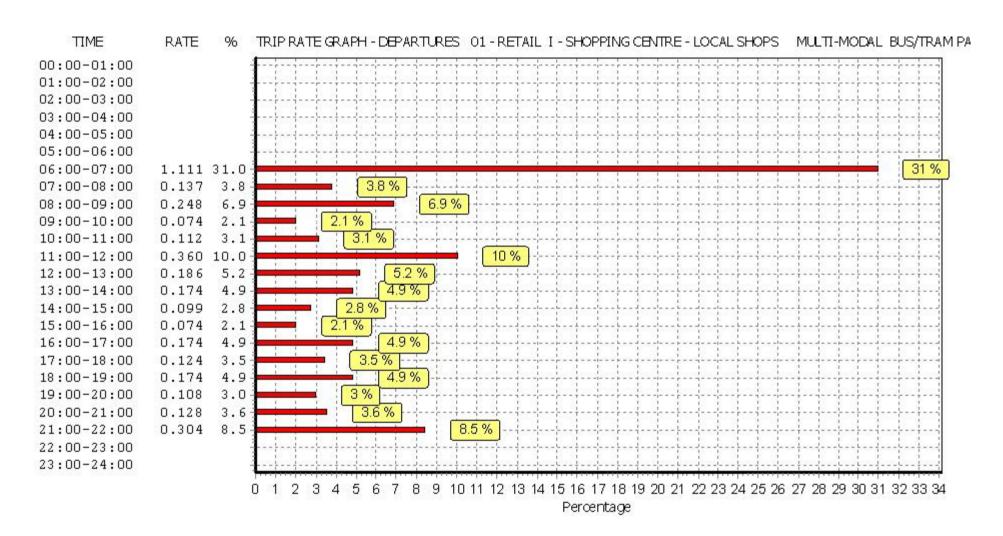
Parameter summary

Trip rate parameter range selected: 260 - 1550 (units: sqm) Survey date date range: 01/01/06 - 24/10/13

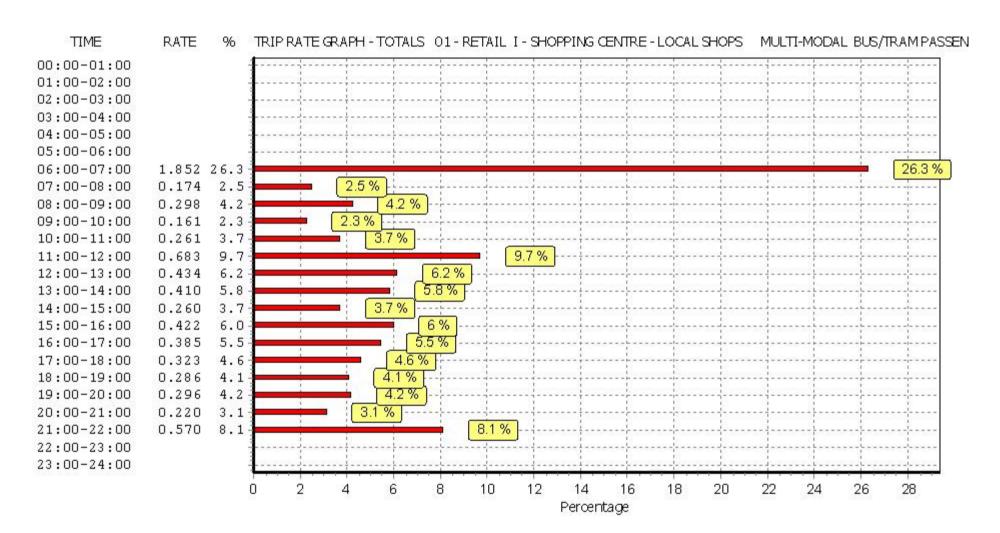
Number of weekdays (Monday-Friday): 11
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 1

TRICS 7.1.2 270814 B16.52 (C) 2014 JMP Consultants Ltd on behalf of the TRICS Consortium Retail - Local Shops Weekday





TRICS 7.1.2 270814 B16.52 (C) 2014 JMP Consultants Ltd on behalf of the TRICS Consortium Retail - Local Shops Weekday



JMP Consultants Ltd. Bothwell Street Glasgow

TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS

MULTI-MODAL TRAIN PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES	ò		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	1	540	0.000	1	540	0.000	1	540	0.000
07:00 - 08:00	11	732	0.025	11	732	0.012	11	732	0.037
08:00 - 09:00	11	732	0.012	11	732	0.012	11	732	0.024
09:00 - 10:00	11	732	0.012	11	732	0.012	11	732	0.024
10:00 - 11:00	11	732	0.000	11	732	0.000	11	732	0.000
11:00 - 12:00	11	732	0.000	11	732	0.000	11	732	0.000
12:00 - 13:00	11	732	0.012	11	732	0.012	11	732	0.024
13:00 - 14:00	11	732	0.050	11	732	0.037	11	732	0.087
14:00 - 15:00	11	732	0.000	11	732	0.000	11	732	0.000
15:00 - 16:00	11	732	0.000	11	732	0.025	11	732	0.025
16:00 - 17:00	11	732	0.000	11	732	0.000	11	732	0.000
17:00 - 18:00	11	732	0.000	11	732	0.000	11	732	0.000
18:00 - 19:00	11	732	0.025	11	732	0.025	11	732	0.050
19:00 - 20:00	9	826	0.000	9	826	0.000	9	826	0.000
20:00 - 21:00	7	779	0.000	7	779	0.000	7	779	0.000
21:00 - 22:00	4	658	0.000	4	658	0.000	4	658	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.136			0.135			0.271

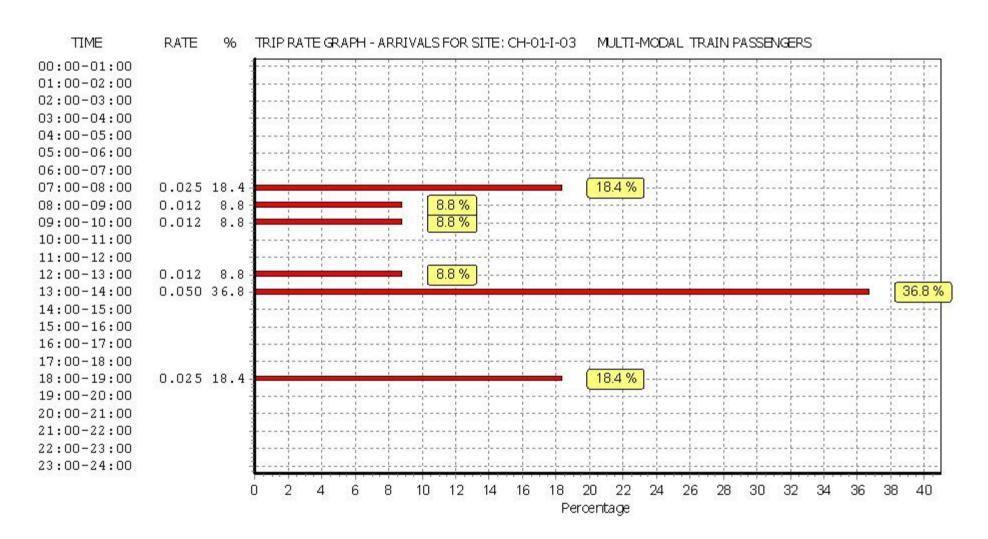
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are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

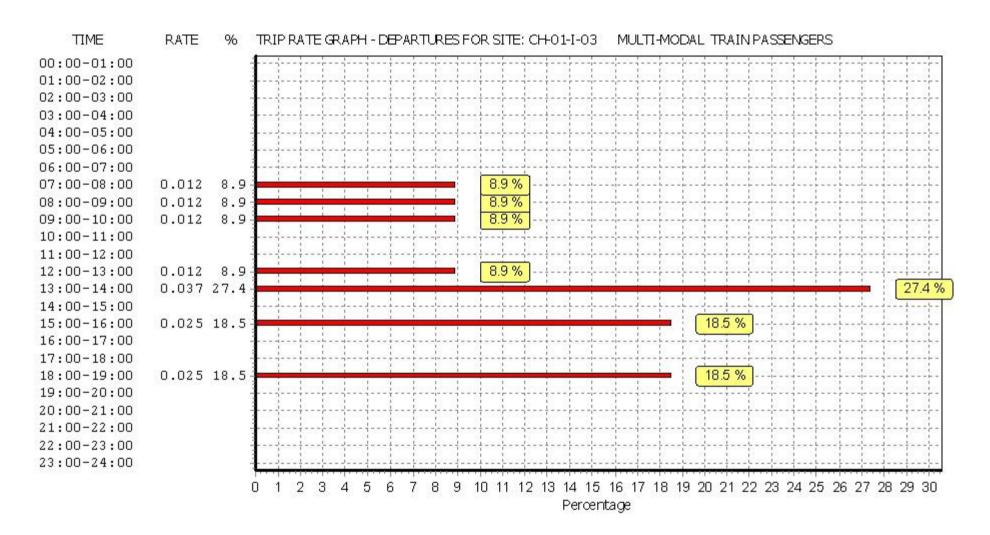
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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: 260 - 1550 (units: sqm) Survey date date range: 01/01/06 - 24/10/13

Number of weekdays (Monday-Friday): 11
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 1





TIME RATE TRIP RATE GRAPH - TOTALS FOR SITE: CH-01-I-03 MULTI-MODAL TRAIN PASSENGERS 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 13.7 % 07:00-08:00 0.037 13.7 0.024 8.9 8.9 % 08:00-09:00 09:00-10:00 0.024 8.9 8.9 % 10:00-11:00 11:00-12:00 8.9 % 12:00-13:00 0.024 8.9 0.087 32.1 32.1 % 13:00-14:00 14:00-15:00 9.2 % 15:00-16:00 0.025 9.2 16:00-17:00 17:00-18:00 18.5 % 18:00-19:00 0.050 18.5 19:00-20:00 20:00-21:00 21:00-22:00 22:00-23:00 23:00-24:00 8 10 12 16 18 20 22 24 14 26 28 30 32 34 Percentage

JMP Consultants Ltd. Bothwell Street Glasgow

TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS

MULTI-MODAL COACH PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			[DEPARTURES)		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	1	540	0.000	1	540	0.000	1	540	0.000
07:00 - 08:00	11	732	0.050	11	732	0.050	11	732	0.100
08:00 - 09:00	11	732	0.000	11	732	0.000	11	732	0.000
09:00 - 10:00	11	732	0.000	11	732	0.000	11	732	0.000
10:00 - 11:00	11	732	0.025	11	732	0.025	11	732	0.050
11:00 - 12:00	11	732	0.012	11	732	0.012	11	732	0.024
12:00 - 13:00	11	732	0.037	11	732	0.012	11	732	0.049
13:00 - 14:00	11	732	0.012	11	732	0.037	11	732	0.049
14:00 - 15:00	11	732	0.000	11	732	0.000	11	732	0.000
15:00 - 16:00	11	732	0.000	11	732	0.000	11	732	0.000
16:00 - 17:00	11	732	0.000	11	732	0.000	11	732	0.000
17:00 - 18:00	11	732	0.000	11	732	0.000	11	732	0.000
18:00 - 19:00	11	732	0.000	11	732	0.000	11	732	0.000
19:00 - 20:00	9	826	0.000	9	826	0.000	9	826	0.000
20:00 - 21:00	7	779	0.000	7	779	0.000	7	779	0.000
21:00 - 22:00	4	658	0.000	4	658	0.000	4	658	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.136			0.136			0.272

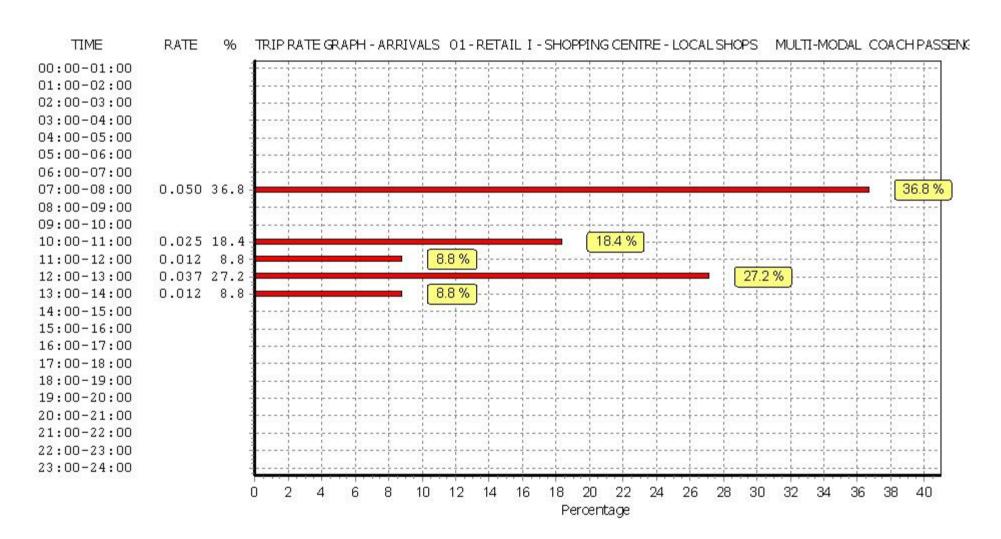
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are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

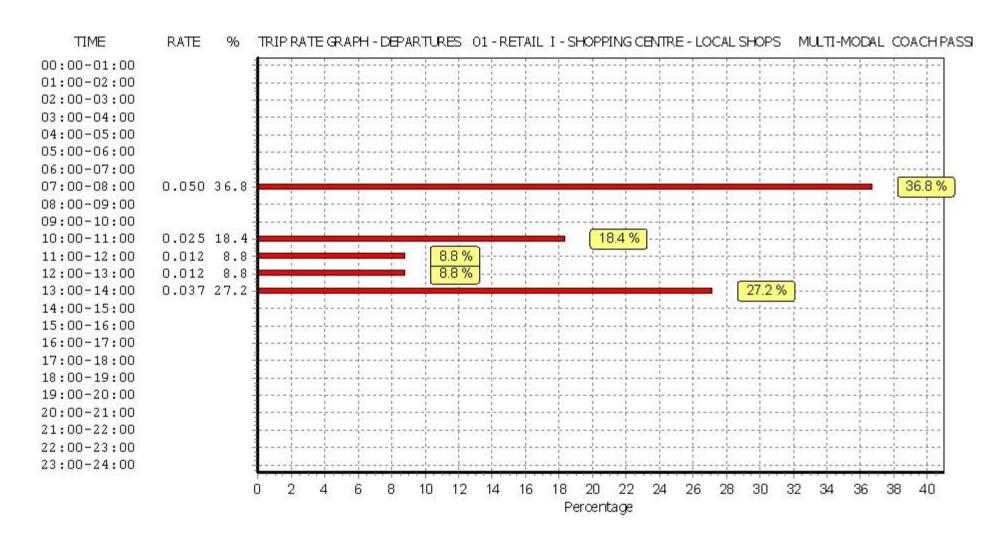
Parameter summary

Trip rate parameter range selected: 260 - 1550 (units: sqm) Survey date date range: 01/01/06 - 24/10/13

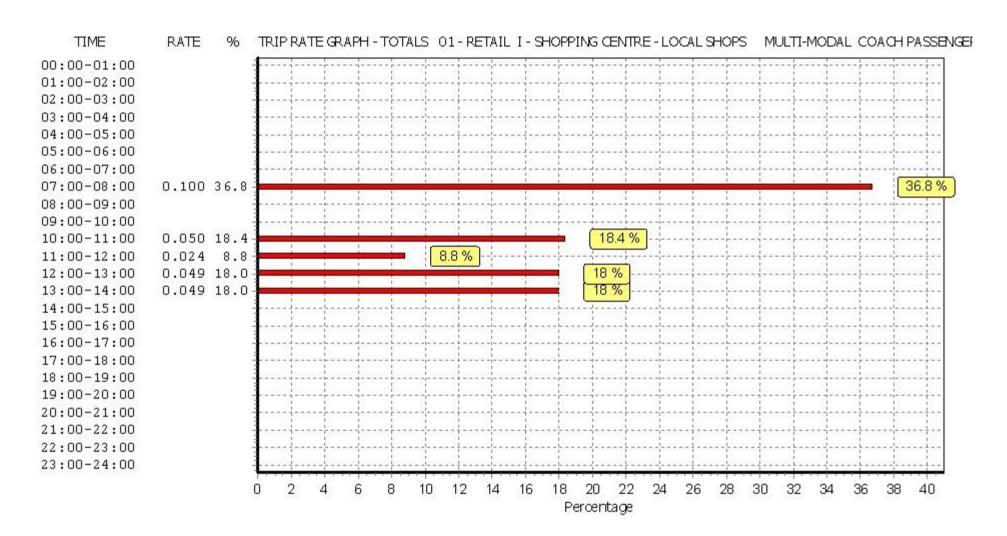
Number of weekdays (Monday-Friday): 11
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 1



TRICS 7.1.2 270814 B16.52 (C) 2014 JMP Consultants Ltd on behalf of the TRICS Consortium Retail - Local Shops Weekday
JMP Consultants Ltd. Bothwell Street Glasgow



TRICS 7.1.2 270814 B16.52 (C) 2014 JMP Consultants Ltd on behalf of the TRICS Consortium Retail - Local Shops Weekday
JMP Consultants Ltd. Bothwell Street Glasgow



JMP Consultants Ltd. Bothwell Street Glasgow

TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES	ò		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	1	540	0.741	1	540	1.111	1	540	1.852
07:00 - 08:00	11	732	0.112	11	732	0.199	11	732	0.311
08:00 - 09:00	11	732	0.062	11	732	0.261	11	732	0.323
09:00 - 10:00	11	732	0.099	11	732	0.087	11	732	0.186
10:00 - 11:00	11	732	0.174	11	732	0.137	11	732	0.311
11:00 - 12:00	11	732	0.335	11	732	0.372	11	732	0.707
12:00 - 13:00	11	732	0.298	11	732	0.211	11	732	0.509
13:00 - 14:00	11	732	0.298	11	732	0.248	11	732	0.546
14:00 - 15:00	11	732	0.161	11	732	0.099	11	732	0.260
15:00 - 16:00	11	732	0.348	11	732	0.099	11	732	0.447
16:00 - 17:00	11	732	0.211	11	732	0.174	11	732	0.385
17:00 - 18:00	11	732	0.199	11	732	0.124	11	732	0.323
18:00 - 19:00	11	732	0.137	11	732	0.199	11	732	0.336
19:00 - 20:00	9	826	0.188	9	826	0.108	9	826	0.296
20:00 - 21:00	7	779	0.092	7	779	0.128	7	779	0.220
21:00 - 22:00	4	658	0.266	4	658	0.304	4	658	0.570
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.721			3.861			7.582

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.

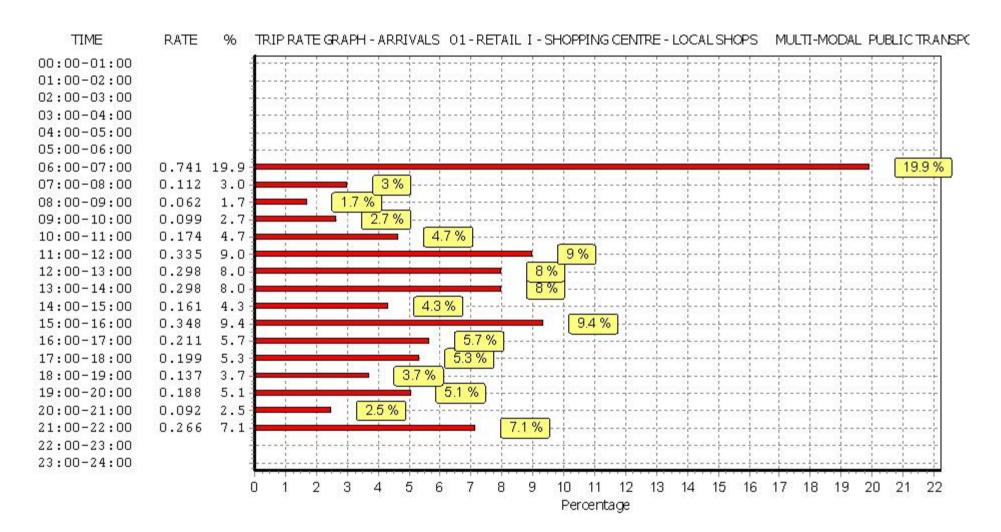
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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: 260 - 1550 (units: sqm) Survey date date range: 01/01/06 - 24/10/13

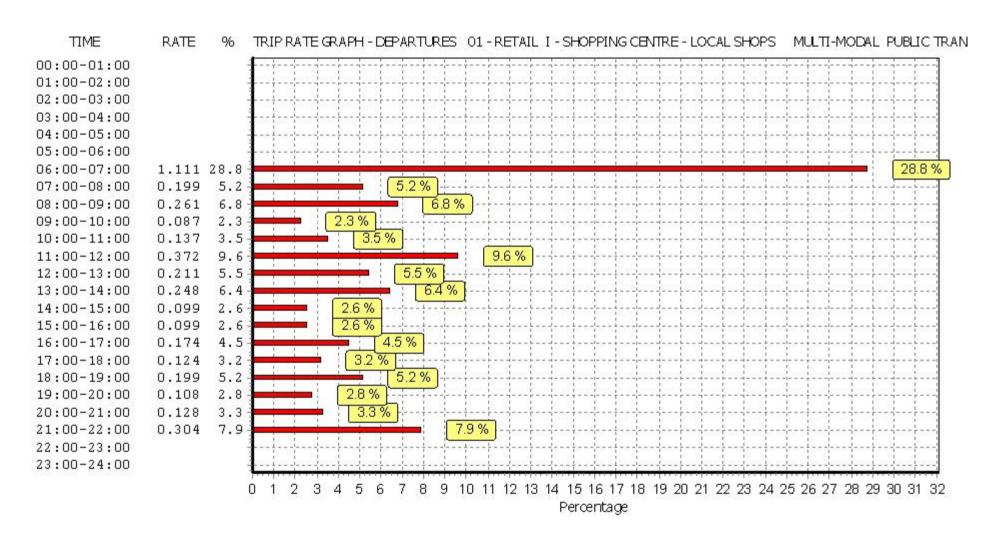
Number of weekdays (Monday-Friday): 11
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 1

TRICS 7.1.2 270814 B16.52 (C) 2014 JMP Consultants Ltd on behalf of the TRICS Consortium Retail - Local Shops Weekday



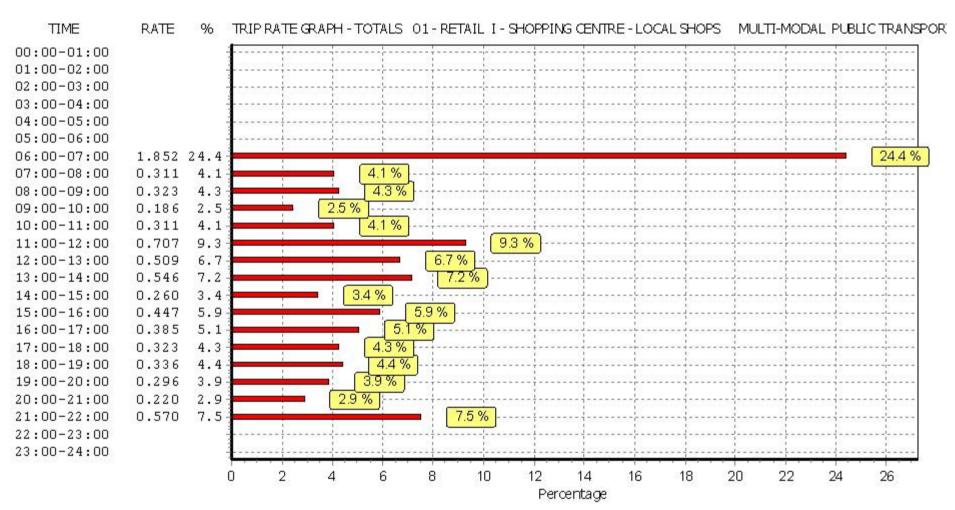
Retail - Local Shops Weekday

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406



TRICS 7.1.2 270814 B16.52 (C) 2014 JMP Consultants Ltd on behalf of the TRICS Consortium Retail - Local Shops Weekday
JMP Consultants Ltd. Bothwell Street Glasgow





JMP Consultants Ltd. Bothwell Street Glasgow

TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS

MULTI-MODAL TOTAL PEOPLE Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES	ò	TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	1	540	6.667	1	540	5.926	1	540	12.593
07:00 - 08:00	11	732	8.354	11	732	7.262	11	732	15.616
08:00 - 09:00	11	732	12.177	11	732	11.743	11	732	23.920
09:00 - 10:00	11	732	11.259	11	732	10.650	11	732	21.909
10:00 - 11:00	11	732	11.668	11	732	10.489	11	732	22.157
11:00 - 12:00	11	732	11.594	11	732	12.140	11	732	23.734
12:00 - 13:00	11	732	15.405	11	732	13.890	11	732	29.295
13:00 - 14:00	11	732	11.060	11	732	11.333	11	732	22.393
14:00 - 15:00	11	732	10.204	11	732	10.166	11	732	20.370
15:00 - 16:00	11	732	14.052	11	732	13.952	11	732	28.004
16:00 - 17:00	11	732	11.643	11	732	12.202	11	732	23.845
17:00 - 18:00	11	732	11.072	11	732	11.656	11	732	22.728
18:00 - 19:00	11	732	11.284	11	732	12.202	11	732	23.486
19:00 - 20:00	9	826	8.693	9	826	8.868	9	826	17.561
20:00 - 21:00	7	779	6.146	7	779	7.356	7	779	13.502
21:00 - 22:00	4	658	7.602	4	658	8.742	4	658	16.344
22:00 - 23:00				·			·		·
23:00 - 24:00				·					
Total Rates:			168.880			168.577			337.457

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.

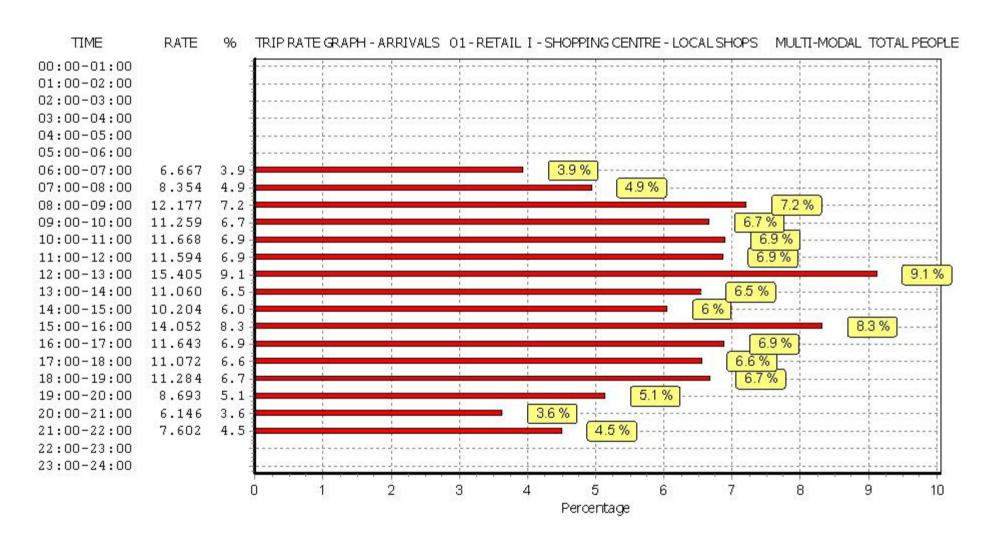
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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

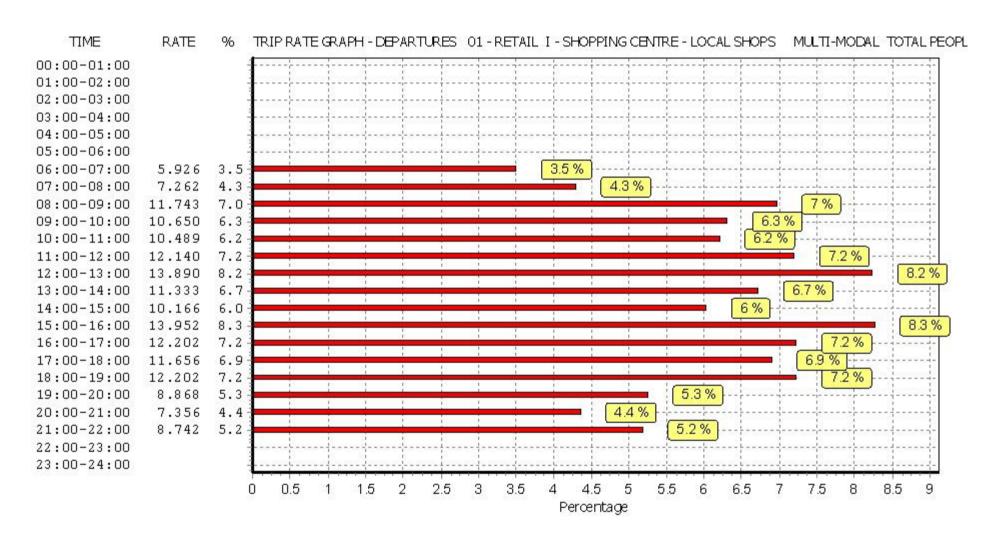
Trip rate parameter range selected: 260 - 1550 (units: sqm) Survey date date range: 01/01/06 - 24/10/13

Number of weekdays (Monday-Friday): 11
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 1

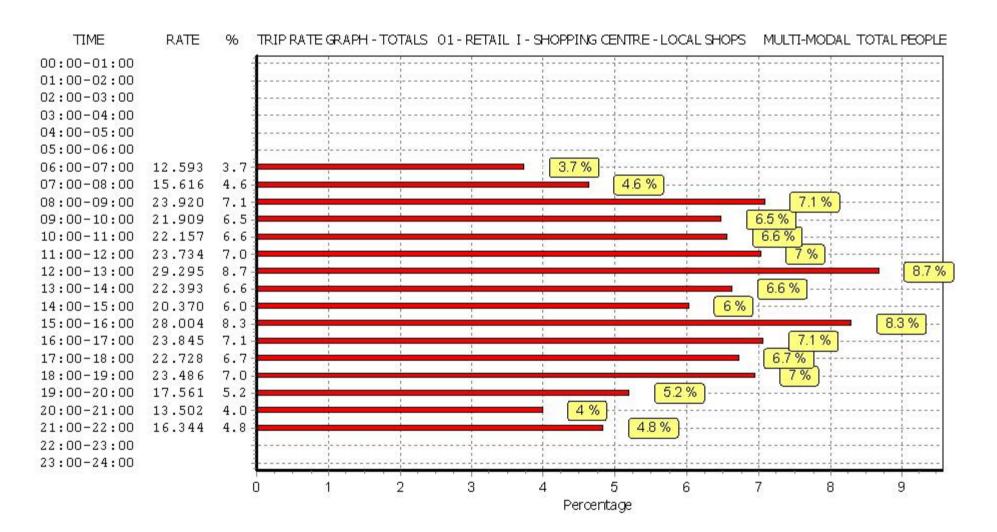
TRICS 7.1.2 270814 B16.52 (C) 2014 JMP Consultants Ltd on behalf of the TRICS Consortium Retail - Local Shops Weekday
JMP Consultants Ltd. Bothwell Street Glasgow



TRICS 7.1.2 270814 B16.52 (C) 2014 JMP Consultants Ltd on behalf of the TRICS Consortium Retail - Local Shops Weekday
JMP Consultants Ltd. Bothwell Street Glasgow



TRICS 7.1.2 270814 B16.52 (C) 2014 JMP Consultants Ltd on behalf of the TRICS Consortium Retail - Local Shops Weekday



TRICS 7.1.2 270814 B16.52 (C) 2014 JMP Consultants Ltd on behalf of the TRICS Consortium Monday 08/12/14 Retail Local Shops Friday Page 1

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL

Category : I - SHOPPING CENTRE - LOCAL SHOPS

MULTI-MODAL VEHICLES

Selected regions and areas:

07 YORKSHIRE & NORTH LINCOLNSHIRE

NY NORTH YORKSHIRE 1 days

09 NORTH

TV TEES VALLEY 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: Gross floor area

Actual Range: 1200 to 1840 (units: sqm) Range Selected by User: 260 to 1890 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/06 to 24/10/13

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:

Friday 2 days

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

Selected survey types:

Manual count 2 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:

Neighbourhood Centre (PPS6 Local Centre) 2

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

2

Selected Location Sub Categories:

Residential Zone

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:

A1 2 days

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

TRICS 7.1.2 270814 B16.52 (C) 2014 JMP Consultants Ltd on behalf of the TRICS Consortium Monday 08/12/14 Retail Local Shops Friday Page 2

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

Filtering Stage 3 selection (Cont.):

Population within 1 mile:

15,001 to 20,000 1 days 25,001 to 50,000 1 days

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

Population within 5 miles:

25,001 to 50,000 1 days 250,001 to 500,000 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 1 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.

Petrol filling station:

Included in the survey count 0 days Excluded from count or no filling station 2 days

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

Travel Plan:

No 2 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.

TRICS 7.1.2 270814 B16.52 (C) 2014 JMP Consultants Ltd on behalf of the TRICS Consortium Monday 08/12/14 Retail Local Shops Friday Page 3

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

LIST OF SITES relevant to selection parameters

1 NY-01-I-01 LOCAL SHOPS NORTH YORKSHIRE

NEWLANDS PARK DRIVE

SCARBOROUGH

Neighbourhood Centre (PPS6 Local Centre)

Residential Zone

Total Gross floor area: 1200 sqm

Survey date: FRIDAY 28/09/07 Survey Type: MANUAL

2 TV-01-I-03 LOCAL SHOPS TEES VALLEY

ACKLAM ROAD ACKLAM

MIDDLESBROUGH

Neighbourhood Centre (PPS6 Local Centre)

Residential Zone

Total Gross floor area: 1840 sqm

Survey date: FRIDAY 04/10/13 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.

JMP Consultants Ltd. Bothwell Street Glasgow

TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS

MULTI-MODAL VEHICLES Calculation factor: 100 sgm

BOLD print indicates peak (busiest) period

	ARRIVALS				DEPARTURES)	TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1520	3.421	2	1520	2.829	2	1520	6.250
08:00 - 09:00	2	1520	4.507	2	1520	4.243	2	1520	8.750
09:00 - 10:00	2	1520	7.303	2	1520	5.559	2	1520	12.862
10:00 - 11:00	2	1520	6.316	2	1520	6.414	2	1520	12.730
11:00 - 12:00	2	1520	7.467	2	1520	7.303	2	1520	14.770
12:00 - 13:00	2	1520	8.355	2	1520	8.059	2	1520	16.414
13:00 - 14:00	2	1520	7.204	2	1520	7.368	2	1520	14.572
14:00 - 15:00	2	1520	8.158	2	1520	8.882	2	1520	17.040
15:00 - 16:00	2	1520	6.480	2	1520	6.546	2	1520	13.026
16:00 - 17:00	2	1520	7.599	2	1520	6.974	2	1520	14.573
17:00 - 18:00	2	1520	7.993	2	1520	9.243	2	1520	17.236
18:00 - 19:00	2	1520	8.322	2	1520	8.191	2	1520	16.513
19:00 - 20:00	2	1520	7.105	2	1520	7.500	2	1520	14.605
20:00 - 21:00	2	1520	4.342	2	1520	4.704	2	1520	9.046
21:00 - 22:00	1	1840	3.587	1	1840	3.859	1	1840	7.446
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			98.159			97.674			195.833

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.

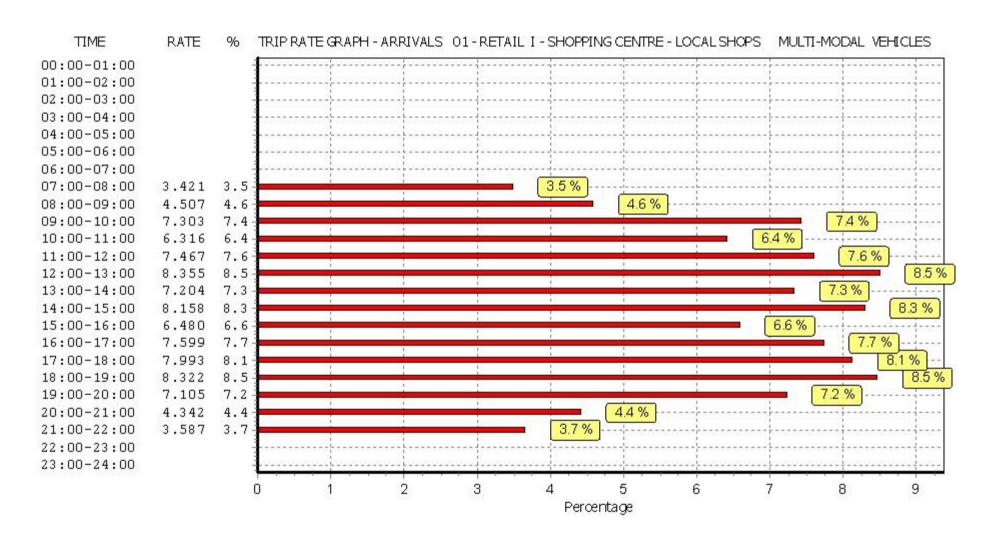
Parameter summary

Trip rate parameter range selected: 1200 - 1840 (units: sqm) Survey date date range: 01/01/06 - 24/10/13

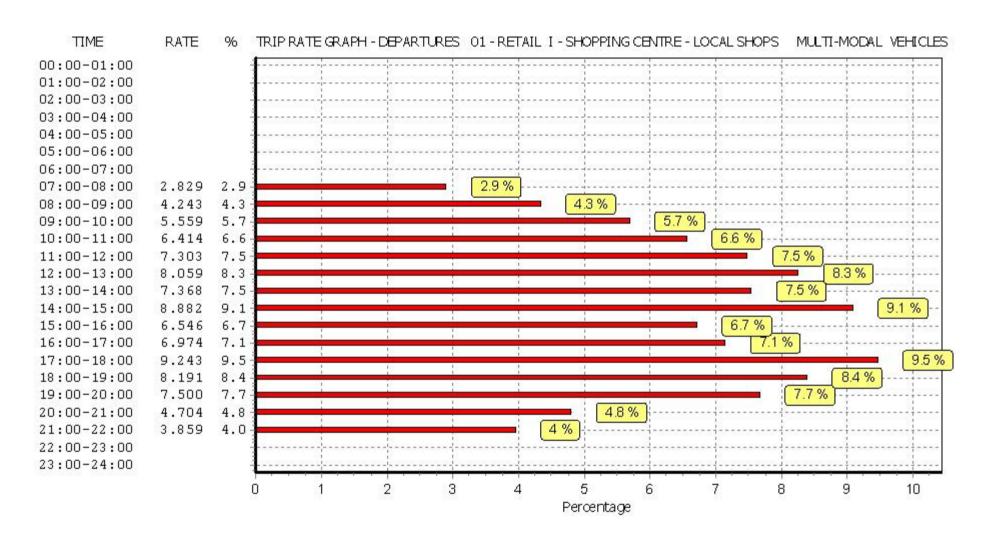
Number of weekdays (Monday-Friday): 2
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0

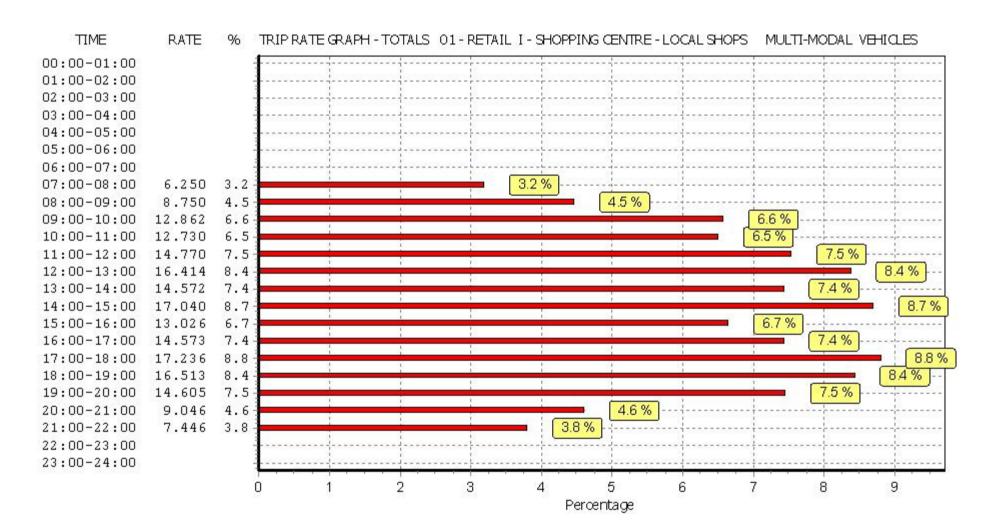
Page 5

Licence No: 846406



TRICS 7.1.2 270814 B16.52 (C) 2014 JMP Consultants Ltd on behalf of the TRICS Consortium Retail Local Shops Friday
JMP Consultants Ltd. Bothwell Street Glasgow





JMP Consultants Ltd. Bothwell Street Glasgow

TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS

MULTI-MODAL TAXIS
Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES	ò		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1520	0.000	2	1520	0.000	2	1520	0.000
08:00 - 09:00	2	1520	0.099	2	1520	0.066	2	1520	0.165
09:00 - 10:00	2	1520	0.099	2	1520	0.132	2	1520	0.231
10:00 - 11:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
11:00 - 12:00	2	1520	0.033	2	1520	0.033	2	1520	0.066
12:00 - 13:00	2	1520	0.033	2	1520	0.033	2	1520	0.066
13:00 - 14:00	2	1520	0.033	2	1520	0.033	2	1520	0.066
14:00 - 15:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
15:00 - 16:00	2	1520	0.033	2	1520	0.000	2	1520	0.033
16:00 - 17:00	2	1520	0.033	2	1520	0.033	2	1520	0.066
17:00 - 18:00	2	1520	0.033	2	1520	0.066	2	1520	0.099
18:00 - 19:00	2	1520	0.099	2	1520	0.066	2	1520	0.165
19:00 - 20:00	2	1520	0.066	2	1520	0.099	2	1520	0.165
20:00 - 21:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
21:00 - 22:00	1	1840	0.000	1	1840	0.000	1	1840	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.561			0.561			1.122

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.

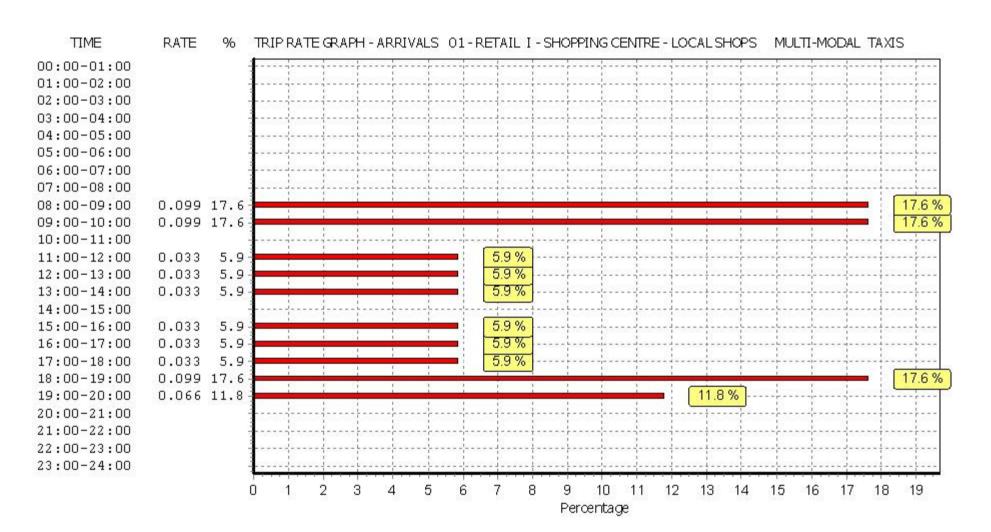
Parameter summary

Trip rate parameter range selected: 1200 - 1840 (units: sqm) Survey date date range: 01/01/06 - 24/10/13

Number of weekdays (Monday-Friday): 2
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0

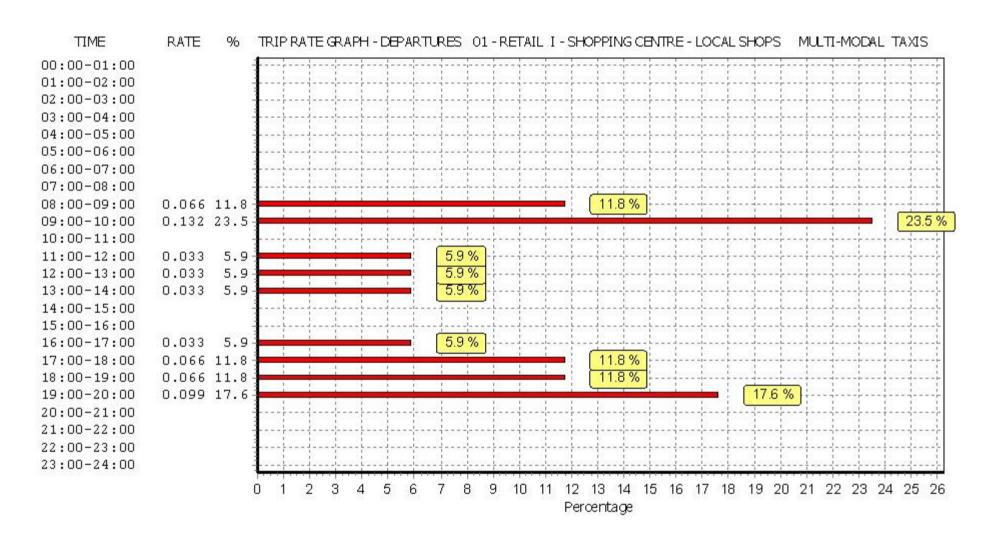
Monday 08/12/14

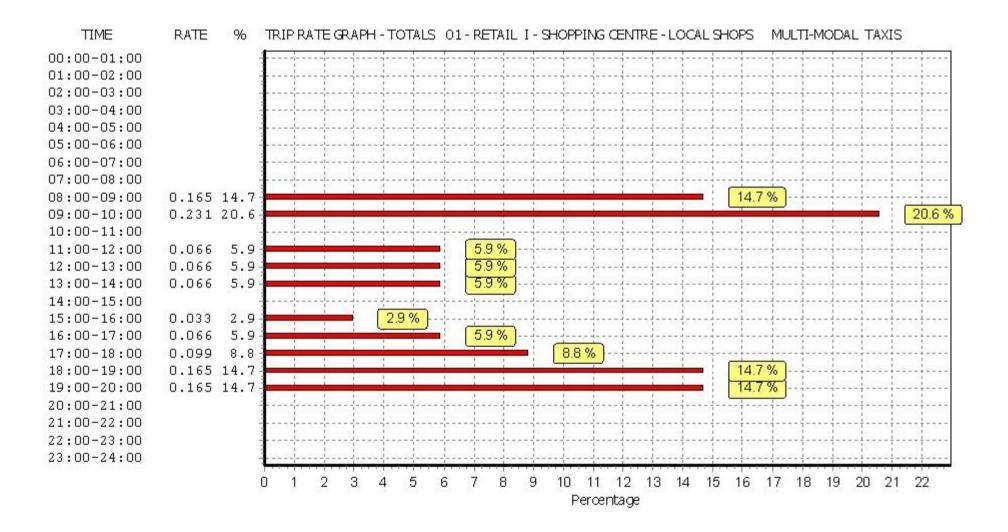
Page 9



Retail Local Shops Friday
JMP Consultants Ltd. Bothwell Street Glasgow

Licence No: 846406





JMP Consultants Ltd. Bothwell Street Glasgow

TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS

MULTI-MODAL OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES	ò	TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1520	0.164	2	1520	0.066	2	1520	0.230
08:00 - 09:00	2	1520	0.099	2	1520	0.099	2	1520	0.198
09:00 - 10:00	2	1520	0.132	2	1520	0.132	2	1520	0.264
10:00 - 11:00	2	1520	0.033	2	1520	0.099	2	1520	0.132
11:00 - 12:00	2	1520	0.066	2	1520	0.066	2	1520	0.132
12:00 - 13:00	2	1520	0.033	2	1520	0.033	2	1520	0.066
13:00 - 14:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
14:00 - 15:00	2	1520	0.033	2	1520	0.033	2	1520	0.066
15:00 - 16:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
16:00 - 17:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
17:00 - 18:00	2	1520	0.033	2	1520	0.033	2	1520	0.066
18:00 - 19:00	2	1520	0.000	2	1520	0.033	2	1520	0.033
19:00 - 20:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
20:00 - 21:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
21:00 - 22:00	1	1840	0.000	1	1840	0.000	1	1840	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.593			0.594			1.187

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.

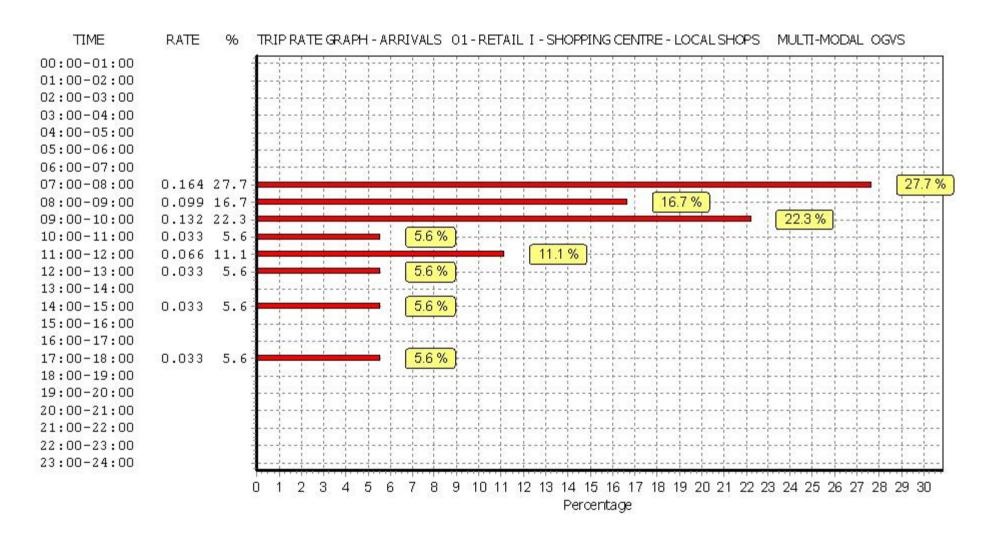
Parameter summary

Trip rate parameter range selected: 1200 - 1840 (units: sqm) Survey date date range: 01/01/06 - 24/10/13

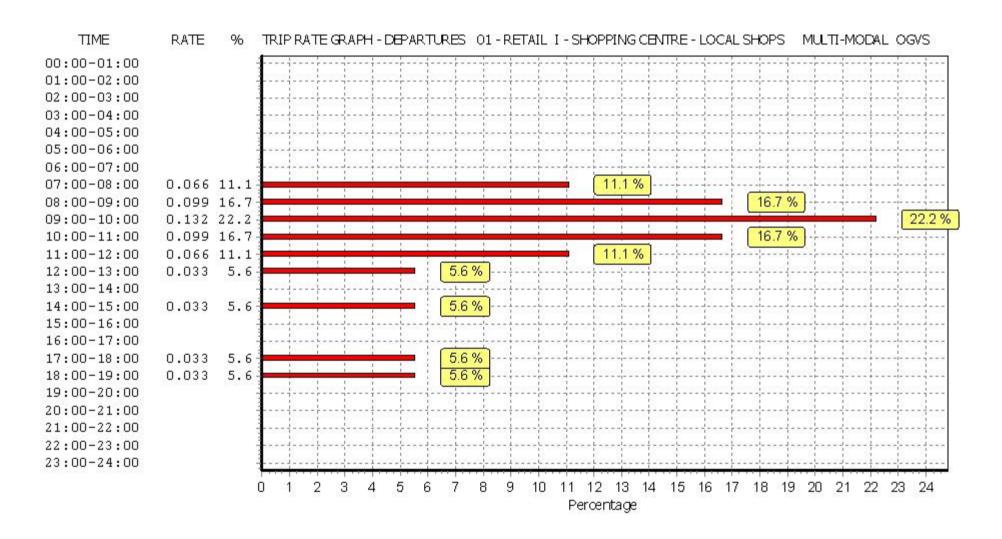
Number of weekdays (Monday-Friday): 2
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0

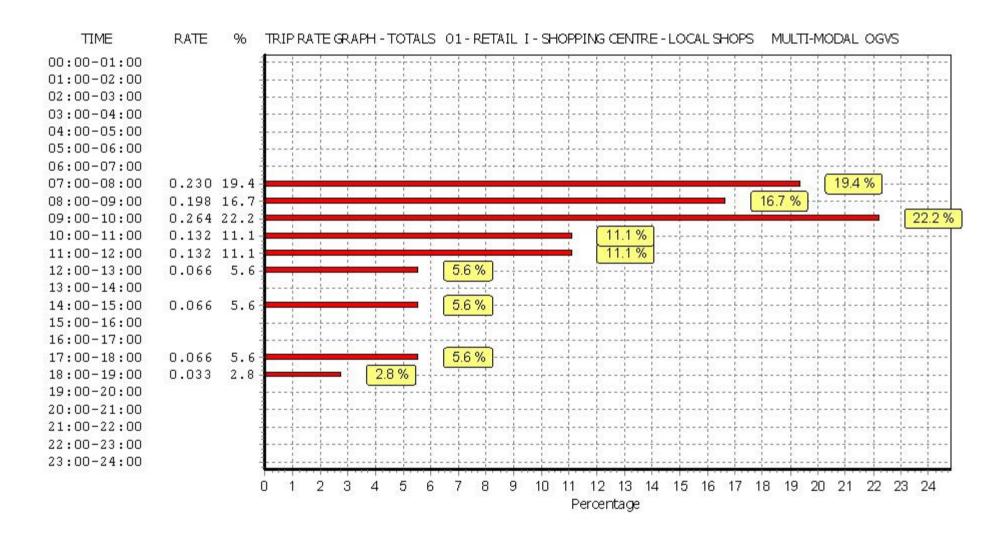
Retail Local Shops Friday

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406



Page 14





JMP Consultants Ltd. Bothwell Street Glasgow

TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS

MULTI-MODAL PSVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1520	0.000	2	1520	0.000	2	1520	0.000
08:00 - 09:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
09:00 - 10:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
10:00 - 11:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
11:00 - 12:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
12:00 - 13:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
13:00 - 14:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
14:00 - 15:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
15:00 - 16:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
16:00 - 17:00	2	1520	0.033	2	1520	0.033	2	1520	0.066
17:00 - 18:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
18:00 - 19:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
19:00 - 20:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
20:00 - 21:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
21:00 - 22:00	1	1840	0.109	1	1840	0.109	1	1840	0.218
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.142			0.142			0.284

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.

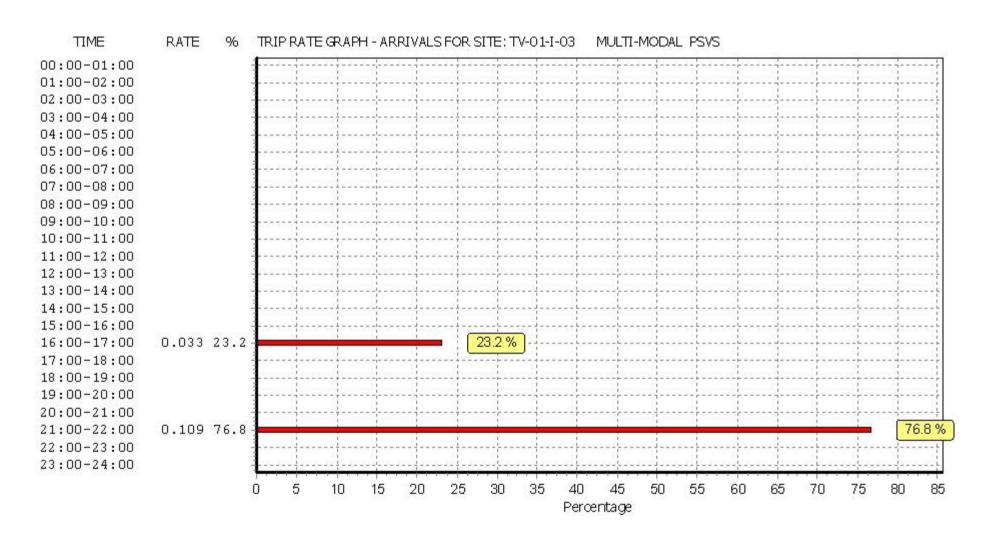
Parameter summary

Trip rate parameter range selected: 1200 - 1840 (units: sqm) Survey date date range: 01/01/06 - 24/10/13

Number of weekdays (Monday-Friday): 2
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0

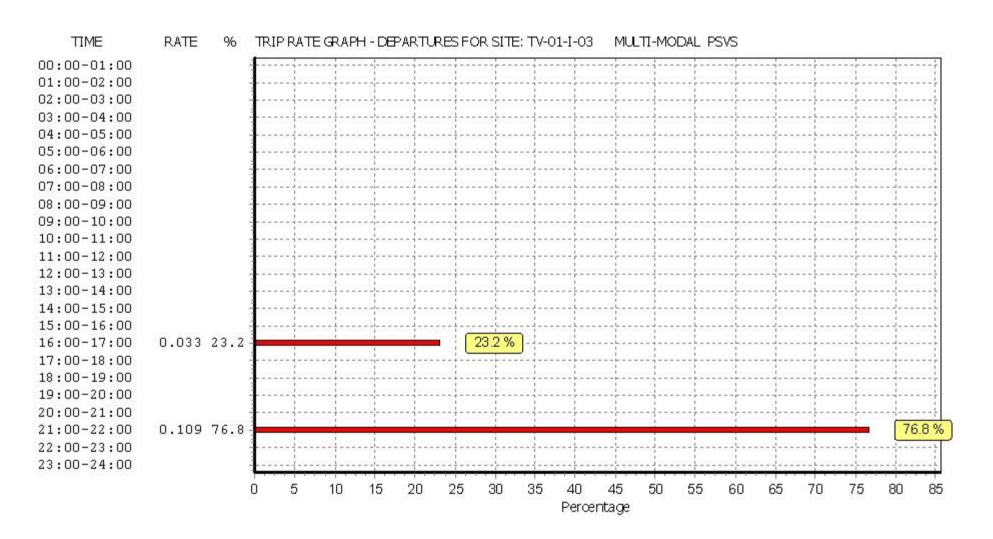
JMP Consultants Ltd. Bothwell Street Glasgow

Licence No: 846406



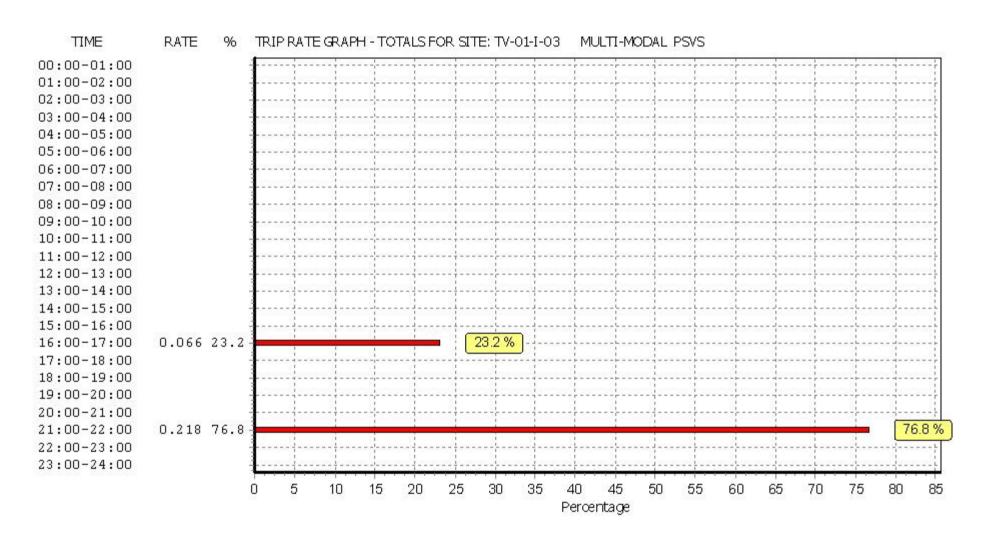
Retail Local Shops Friday
JMP Consultants Ltd. Bothwell Street Glasgow

Licence No: 846406



Retail Local Shops Friday JMP Consultants Ltd. Bothwell Street Glasgow

Licence No: 846406



JMP Consultants Ltd. Bothwell Street Glasgow

TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS

MULTI-MODAL CYCLISTS
Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1520	0.132	2	1520	0.132	2	1520	0.264
08:00 - 09:00	2	1520	0.197	2	1520	0.132	2	1520	0.329
09:00 - 10:00	2	1520	0.099	2	1520	0.099	2	1520	0.198
10:00 - 11:00	2	1520	0.197	2	1520	0.132	2	1520	0.329
11:00 - 12:00	2	1520	0.033	2	1520	0.099	2	1520	0.132
12:00 - 13:00	2	1520	0.099	2	1520	0.000	2	1520	0.099
13:00 - 14:00	2	1520	0.000	2	1520	0.099	2	1520	0.099
14:00 - 15:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
15:00 - 16:00	2	1520	0.230	2	1520	0.099	2	1520	0.329
16:00 - 17:00	2	1520	0.132	2	1520	0.230	2	1520	0.362
17:00 - 18:00	2	1520	0.066	2	1520	0.164	2	1520	0.230
18:00 - 19:00	2	1520	0.099	2	1520	0.033	2	1520	0.132
19:00 - 20:00	2	1520	0.033	2	1520	0.033	2	1520	0.066
20:00 - 21:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
21:00 - 22:00	1	1840	0.217	1	1840	0.163	1	1840	0.380
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.534			1.415			2.949

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.

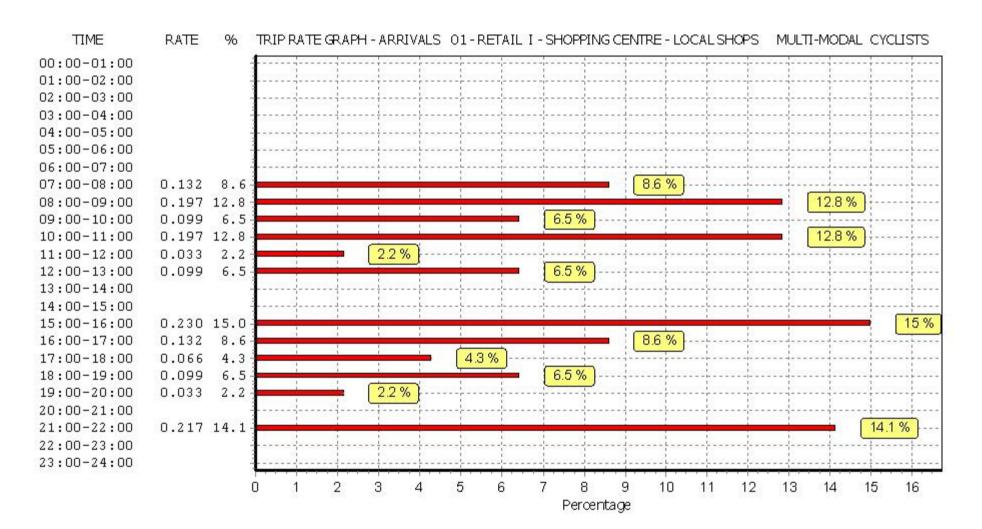
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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

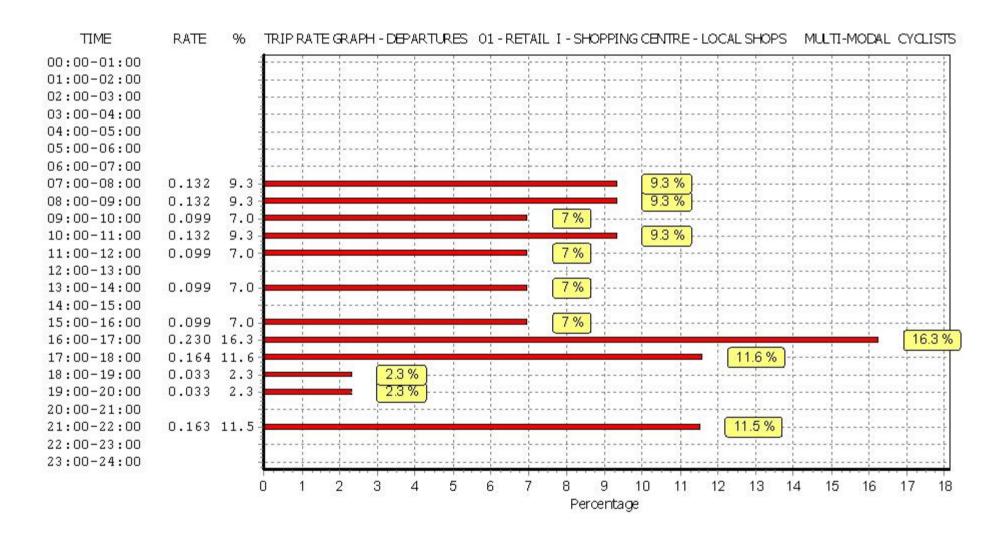
Parameter summary

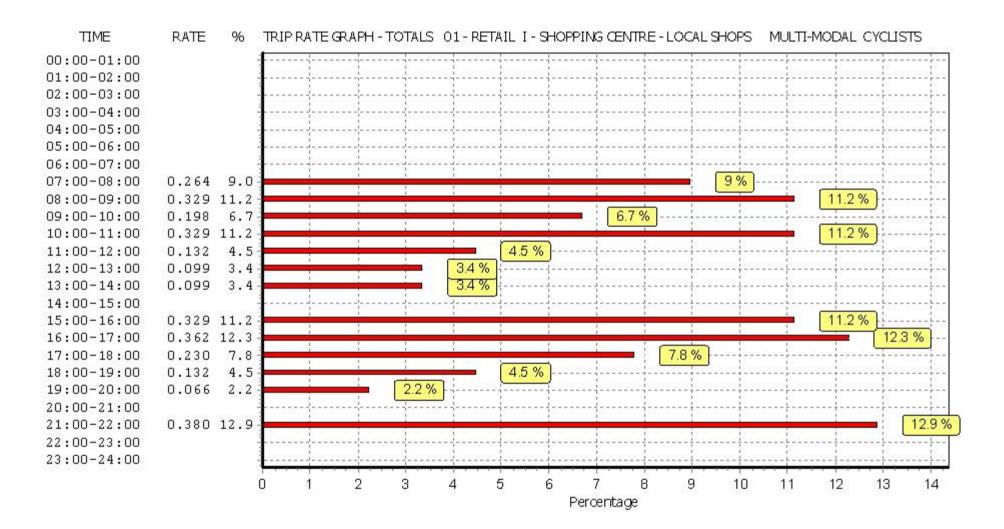
Trip rate parameter range selected: 1200 - 1840 (units: sqm) Survey date date range: 01/01/06 - 24/10/13

Number of weekdays (Monday-Friday): 2
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0

Retail Local Shops Friday
JMP Consultants Ltd. Bothwell Street Glasgow







JMP Consultants Ltd. Bothwell Street Glasgow

TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS

MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES	ò		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1520	3.783	2	1520	3.026	2	1520	6.809
08:00 - 09:00	2	1520	5.987	2	1520	5.461	2	1520	11.448
09:00 - 10:00	2	1520	8.783	2	1520	7.138	2	1520	15.921
10:00 - 11:00	2	1520	7.763	2	1520	7.730	2	1520	15.493
11:00 - 12:00	2	1520	9.901	2	1520	9.671	2	1520	19.572
12:00 - 13:00	2	1520	10.888	2	1520	10.296	2	1520	21.184
13:00 - 14:00	2	1520	9.079	2	1520	9.605	2	1520	18.684
14:00 - 15:00	2	1520	10.757	2	1520	11.645	2	1520	22.402
15:00 - 16:00	2	1520	8.553	2	1520	9.474	2	1520	18.027
16:00 - 17:00	2	1520	9.441	2	1520	8.586	2	1520	18.027
17:00 - 18:00	2	1520	10.493	2	1520	11.875	2	1520	22.368
18:00 - 19:00	2	1520	10.921	2	1520	11.316	2	1520	22.237
19:00 - 20:00	2	1520	10.099	2	1520	10.362	2	1520	20.461
20:00 - 21:00	2	1520	6.020	2	1520	6.184	2	1520	12.204
21:00 - 22:00	1	1840	5.217	1	1840	4.674	1	1840	9.891
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			127.685			127.043			254.728

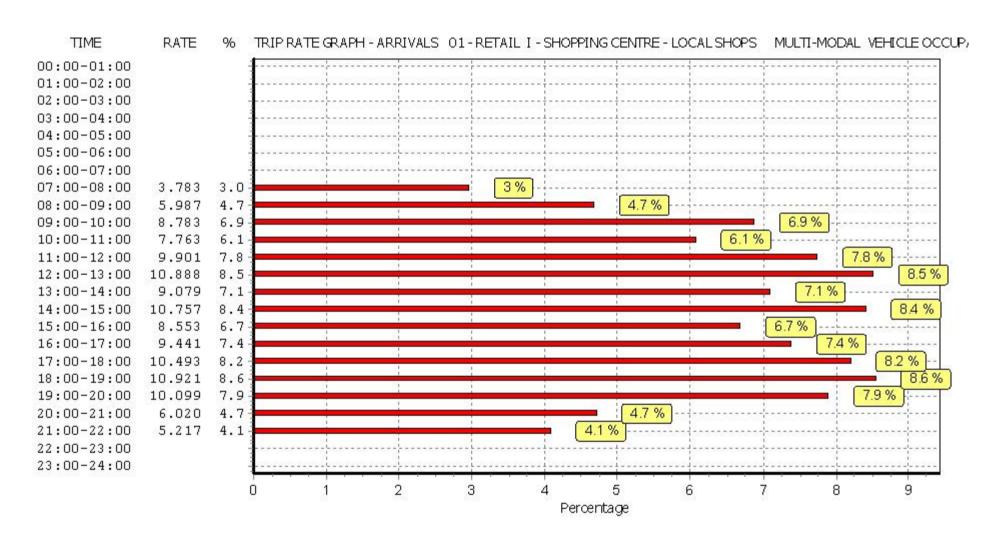
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are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

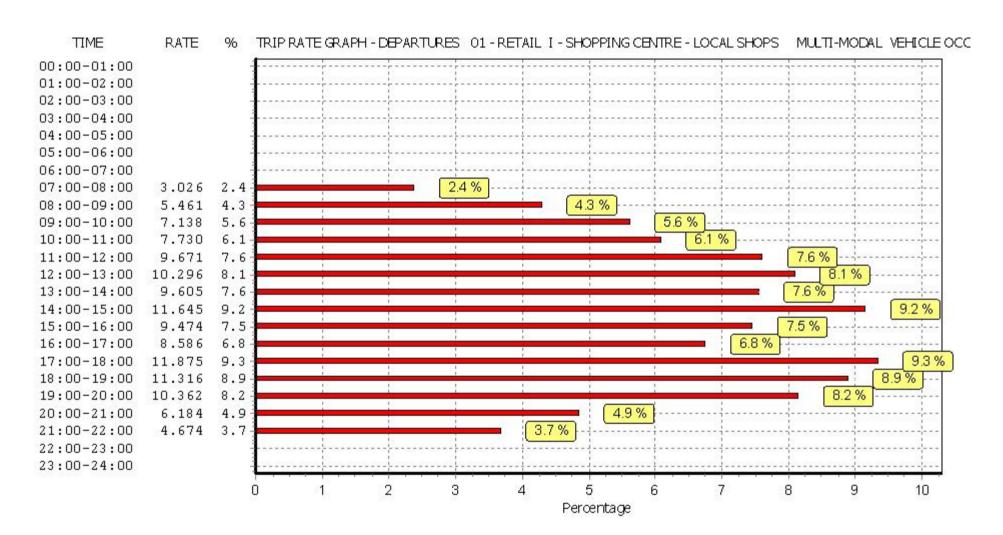
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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

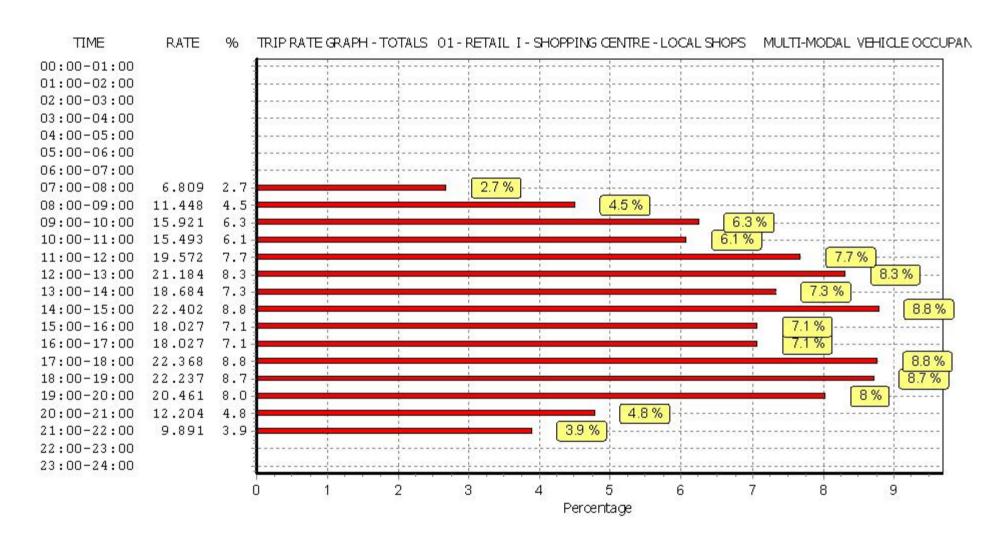
Parameter summary

Trip rate parameter range selected: 1200 - 1840 (units: sqm) Survey date date range: 01/01/06 - 24/10/13

Number of weekdays (Monday-Friday): 2
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0







JMP Consultants Ltd. Bothwell Street Glasgow

TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS

MULTI-MODAL PEDESTRIANS Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES	ò		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1520	2.599	2	1520	2.270	2	1520	4.869
08:00 - 09:00	2	1520	9.770	2	1520	9.638	2	1520	19.408
09:00 - 10:00	2	1520	5.724	2	1520	5.132	2	1520	10.856
10:00 - 11:00	2	1520	5.691	2	1520	6.283	2	1520	11.974
11:00 - 12:00	2	1520	5.526	2	1520	4.375	2	1520	9.901
12:00 - 13:00	2	1520	5.559	2	1520	5.362	2	1520	10.921
13:00 - 14:00	2	1520	7.039	2	1520	6.842	2	1520	13.881
14:00 - 15:00	2	1520	6.217	2	1520	6.447	2	1520	12.664
15:00 - 16:00	2	1520	10.559	2	1520	11.020	2	1520	21.579
16:00 - 17:00	2	1520	6.546	2	1520	7.105	2	1520	13.651
17:00 - 18:00	2	1520	6.283	2	1520	6.382	2	1520	12.665
18:00 - 19:00	2	1520	5.000	2	1520	4.836	2	1520	9.836
19:00 - 20:00	2	1520	4.638	2	1520	5.493	2	1520	10.131
20:00 - 21:00	2	1520	2.105	2	1520	1.908	2	1520	4.013
21:00 - 22:00	1	1840	2.554	1	1840	2.880	1	1840	5.434
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			85.810			85.973			171.783

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.

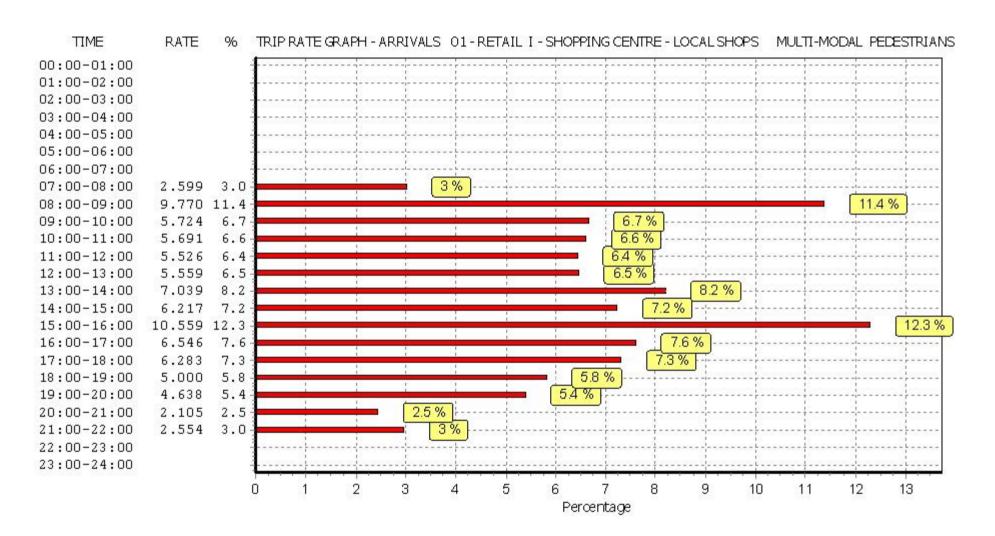
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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: 1200 - 1840 (units: sqm) Survey date date range: 01/01/06 - 24/10/13

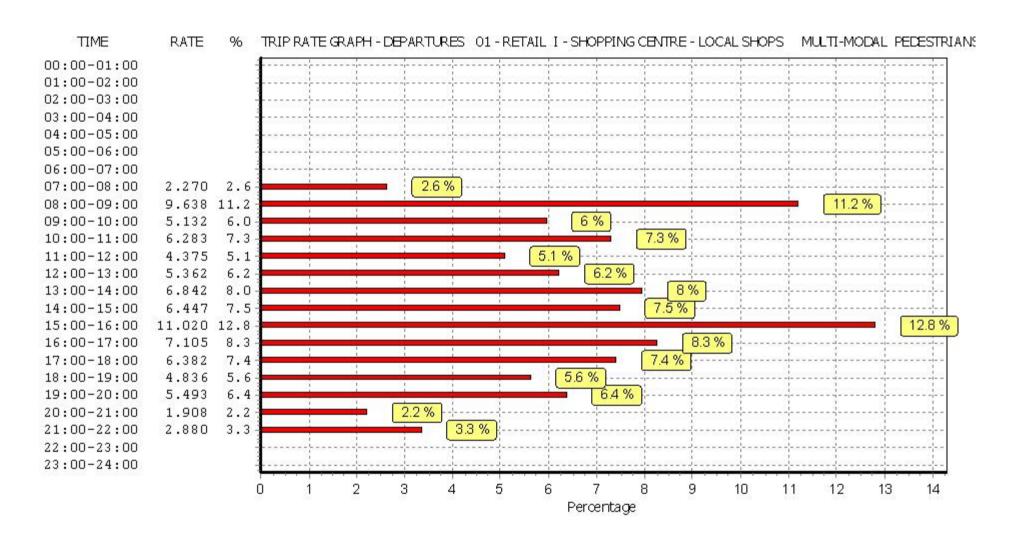
Number of weekdays (Monday-Friday): 2
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0

TRICS 7.1.2 270814 B16.52 (C) 2014 JMP Consultants Ltd on behalf of the TRICS Consortium Retail Local Shops Friday JMP Consultants Ltd. Bothwell Street Glasgow



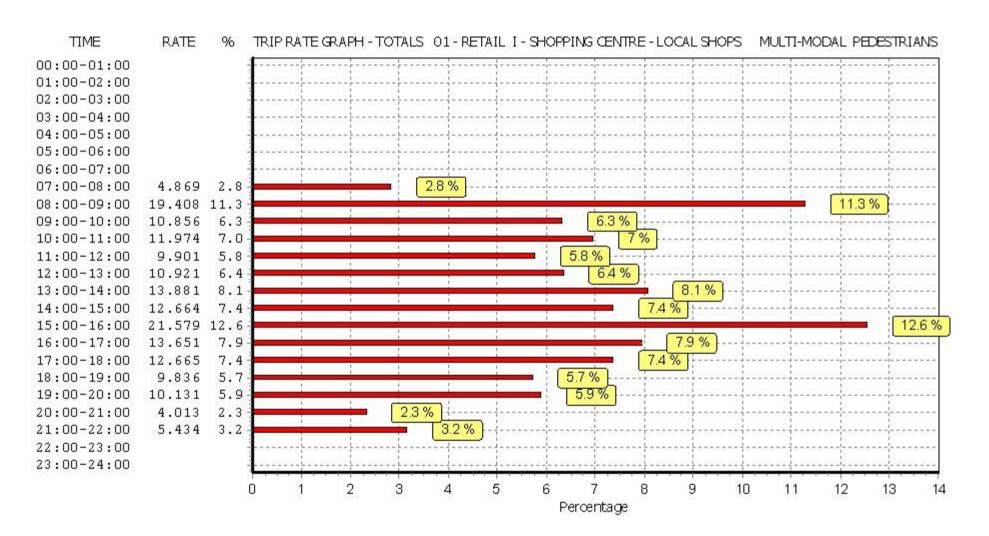
Page 30

TRICS 7.1.2 270814 B16.52 (C) 2014 JMP Consultants Ltd on behalf of the TRICS Consortium Retail Local Shops Friday JMP Consultants Ltd. Bothwell Street Glasgow



Retail Local Shops Friday

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406



JMP Consultants Ltd. Bothwell Street Glasgow

TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS

MULTI-MODAL BUS/TRAM PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES		TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1520	0.000	2	1520	0.000	2	1520	0.000	
08:00 - 09:00	2	1520	0.033	2	1520	0.000	2	1520	0.033	
09:00 - 10:00	2	1520	0.000	2	1520	0.000	2	1520	0.000	
10:00 - 11:00	2	1520	0.033	2	1520	0.066	2	1520	0.099	
11:00 - 12:00	2	1520	0.033	2	1520	0.000	2	1520	0.033	
12:00 - 13:00	2	1520	0.033	2	1520	0.000	2	1520	0.033	
13:00 - 14:00	2	1520	0.033	2	1520	0.099	2	1520	0.132	
14:00 - 15:00	2	1520	0.263	2	1520	0.230	2	1520	0.493	
15:00 - 16:00	2	1520	0.197	2	1520	0.000	2	1520	0.197	
16:00 - 17:00	2	1520	0.000	2	1520	0.000	2	1520	0.000	
17:00 - 18:00	2	1520	0.033	2	1520	0.000	2	1520	0.033	
18:00 - 19:00	2	1520	0.000	2	1520	0.000	2	1520	0.000	
19:00 - 20:00	2	1520	0.000	2	1520	0.000	2	1520	0.000	
20:00 - 21:00	2	1520	0.000	2	1520	0.000	2	1520	0.000	
21:00 - 22:00	1	1840	0.000	1	1840	0.000	1	1840	0.000	
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			0.658			0.395			1.053	

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.

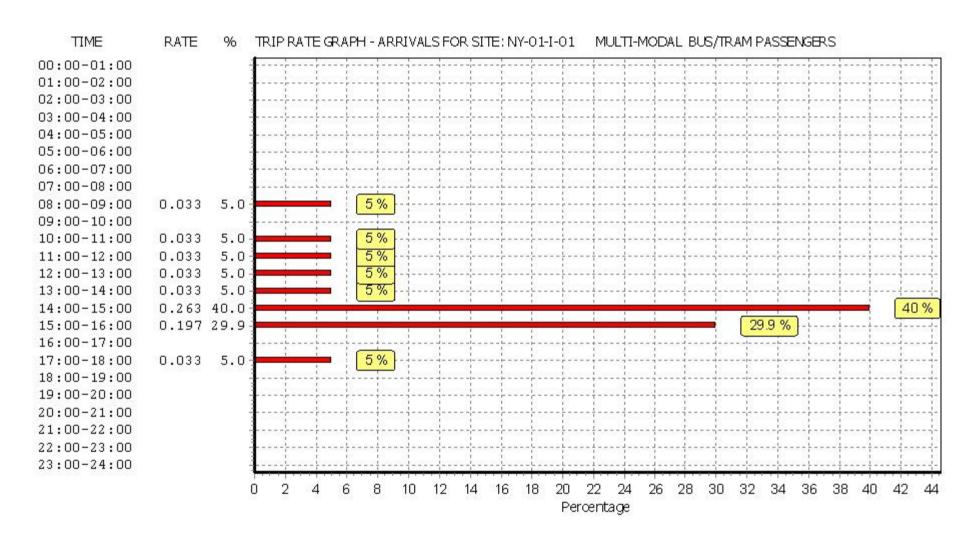
Parameter summary

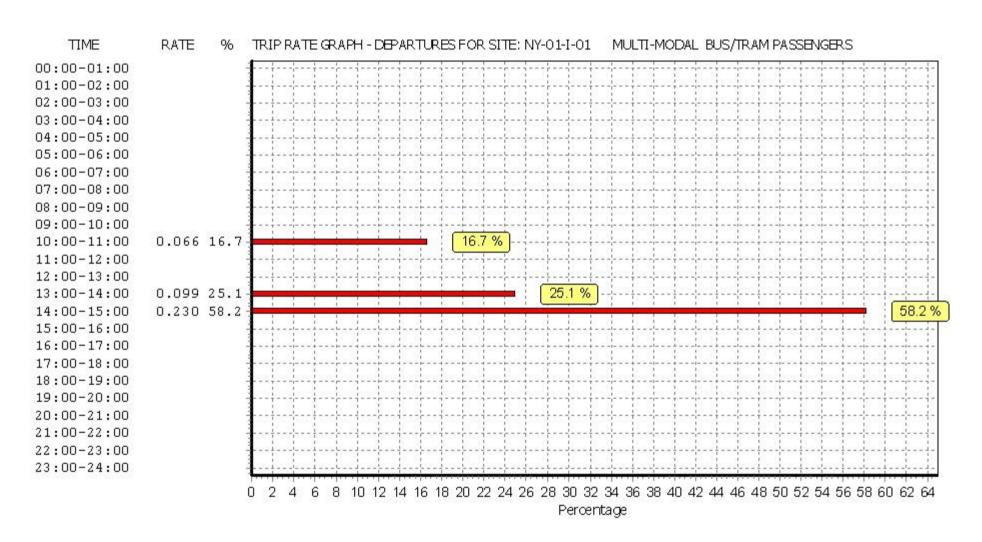
Trip rate parameter range selected: 1200 - 1840 (units: sqm) Survey date date range: 01/01/06 - 24/10/13

Number of weekdays (Monday-Friday): 2
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0

Retail Local Shops Friday

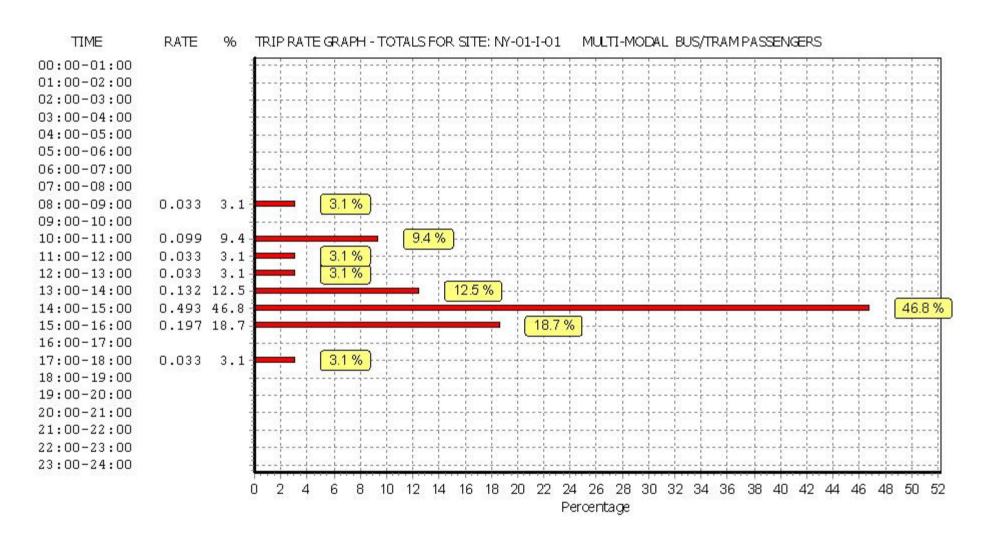
JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406





Retail Local Shops Friday JMP Consultants Ltd. Bothwell Street Glasgow

Licence No: 846406



JMP Consultants Ltd. Bothwell Street Glasgow

TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS

MULTI-MODAL TRAIN PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1520	0.000	2	1520	0.000	2	1520	0.000
08:00 - 09:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
09:00 - 10:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
10:00 - 11:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
11:00 - 12:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
12:00 - 13:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
13:00 - 14:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
14:00 - 15:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
15:00 - 16:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
16:00 - 17:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
17:00 - 18:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
18:00 - 19:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
19:00 - 20:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
20:00 - 21:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
21:00 - 22:00	1	1840	0.000	1	1840	0.000	1	1840	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.000			0.000			0.000

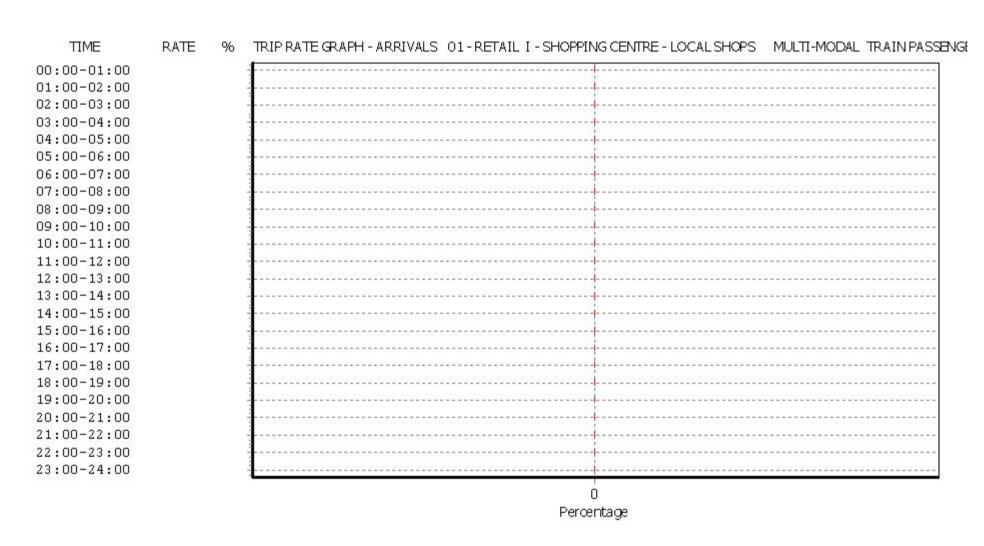
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are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

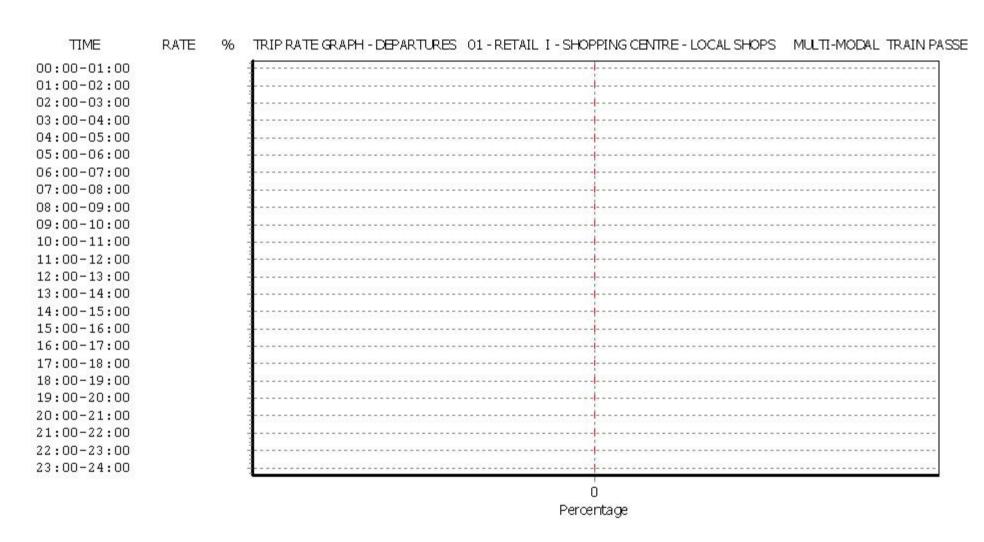
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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

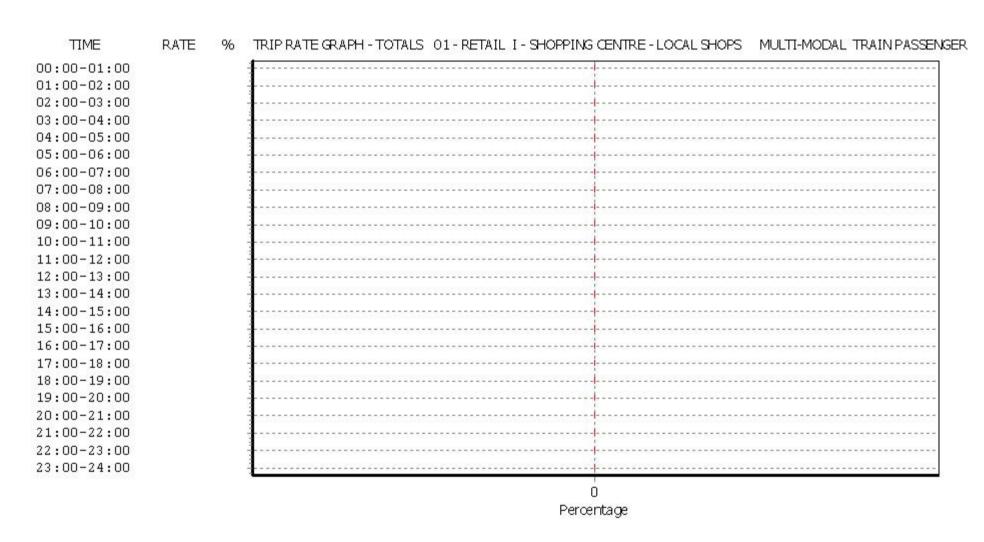
Parameter summary

Trip rate parameter range selected: 1200 - 1840 (units: sqm) Survey date date range: 01/01/06 - 24/10/13

Number of weekdays (Monday-Friday): 2
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0







JMP Consultants Ltd. Bothwell Street Glasgow

TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS

MULTI-MODAL COACH PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES		TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1520	0.000	2	1520	0.000	2	1520	0.000	
08:00 - 09:00	2	1520	0.000	2	1520	0.000	2	1520	0.000	
09:00 - 10:00	2	1520	0.000	2	1520	0.000	2	1520	0.000	
10:00 - 11:00	2	1520	0.000	2	1520	0.000	2	1520	0.000	
11:00 - 12:00	2	1520	0.000	2	1520	0.000	2	1520	0.000	
12:00 - 13:00	2	1520	0.000	2	1520	0.000	2	1520	0.000	
13:00 - 14:00	2	1520	0.000	2	1520	0.000	2	1520	0.000	
14:00 - 15:00	2	1520	0.000	2	1520	0.000	2	1520	0.000	
15:00 - 16:00	2	1520	0.000	2	1520	0.000	2	1520	0.000	
16:00 - 17:00	2	1520	0.033	2	1520	0.033	2	1520	0.066	
17:00 - 18:00	2	1520	0.000	2	1520	0.000	2	1520	0.000	
18:00 - 19:00	2	1520	0.000	2	1520	0.000	2	1520	0.000	
19:00 - 20:00	2	1520	0.000	2	1520	0.000	2	1520	0.000	
20:00 - 21:00	2	1520	0.000	2	1520	0.000	2	1520	0.000	
21:00 - 22:00	1	1840	0.109	1	1840	0.326	1_	1840	0.435	
22:00 - 23:00										
23:00 - 24:00										
Total Rates:			0.142			0.359			0.501	

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

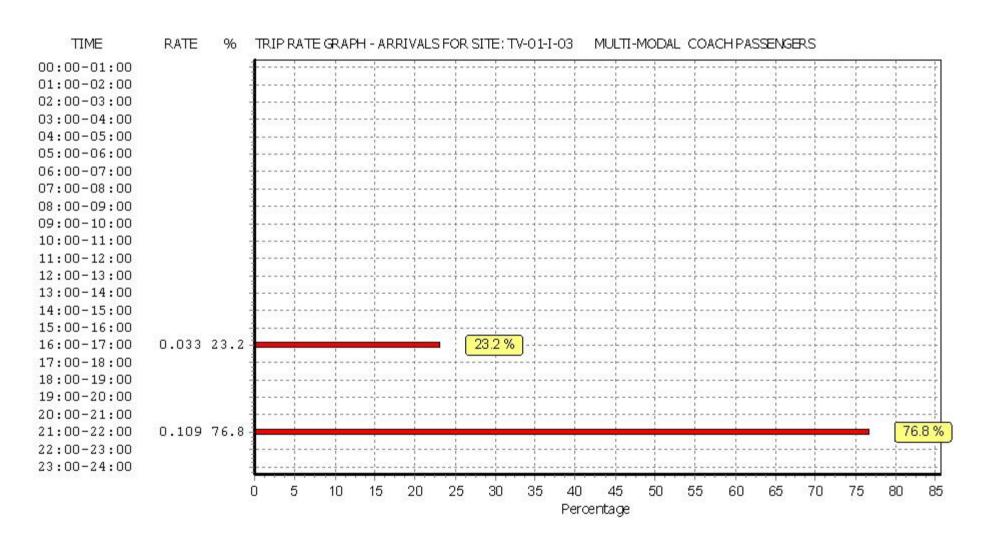
Trip rate parameter range selected: 1200 - 1840 (units: sqm) Survey date date range: 01/01/06 - 24/10/13

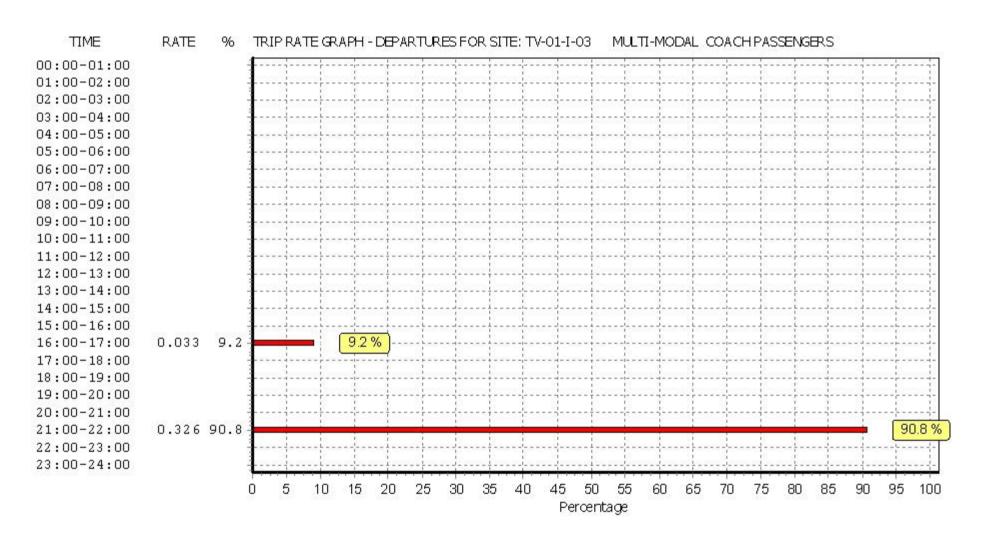
Number of weekdays (Monday-Friday): 2
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0

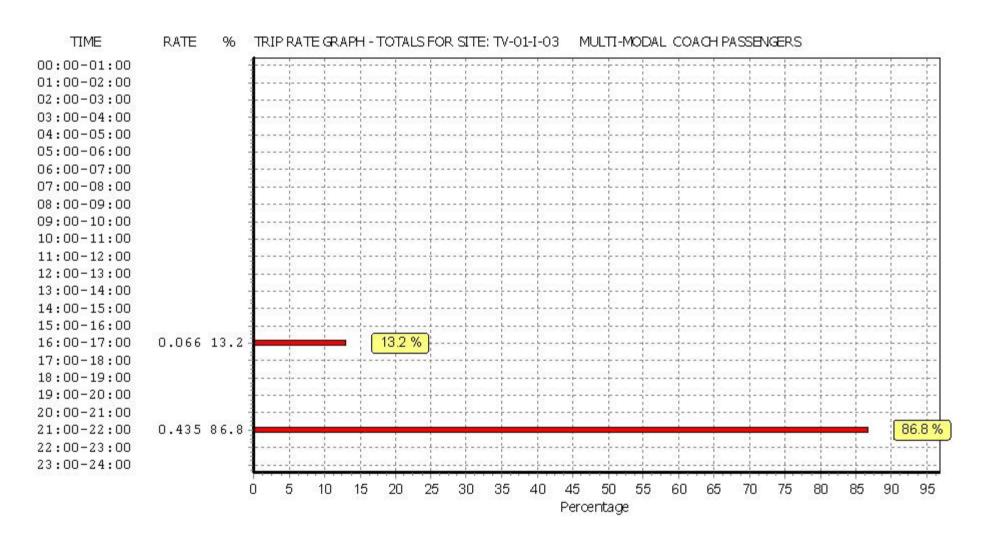
Retail Local Shops Friday

JMP Consultants Ltd. Bothwell Street Glasgow

Licence No: 846406







JMP Consultants Ltd. Bothwell Street Glasgow

TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS

MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1520	0.000	2	1520	0.000	2	1520	0.000
08:00 - 09:00	2	1520	0.033	2	1520	0.000	2	1520	0.033
09:00 - 10:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
10:00 - 11:00	2	1520	0.033	2	1520	0.066	2	1520	0.099
11:00 - 12:00	2	1520	0.033	2	1520	0.000	2	1520	0.033
12:00 - 13:00	2	1520	0.033	2	1520	0.000	2	1520	0.033
13:00 - 14:00	2	1520	0.033	2	1520	0.099	2	1520	0.132
14:00 - 15:00	2	1520	0.263	2	1520	0.230	2	1520	0.493
15:00 - 16:00	2	1520	0.197	2	1520	0.000	2	1520	0.197
16:00 - 17:00	2	1520	0.033	2	1520	0.033	2	1520	0.066
17:00 - 18:00	2	1520	0.033	2	1520	0.000	2	1520	0.033
18:00 - 19:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
19:00 - 20:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
20:00 - 21:00	2	1520	0.000	2	1520	0.000	2	1520	0.000
21:00 - 22:00	1	1840	0.109	1	1840	0.326	1	1840	0.435
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.800			0.754			1.554

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: 1200 - 1840 (units: sqm) Survey date date range: 01/01/06 - 24/10/13

Number of weekdays (Monday-Friday): 2
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0

Page 45

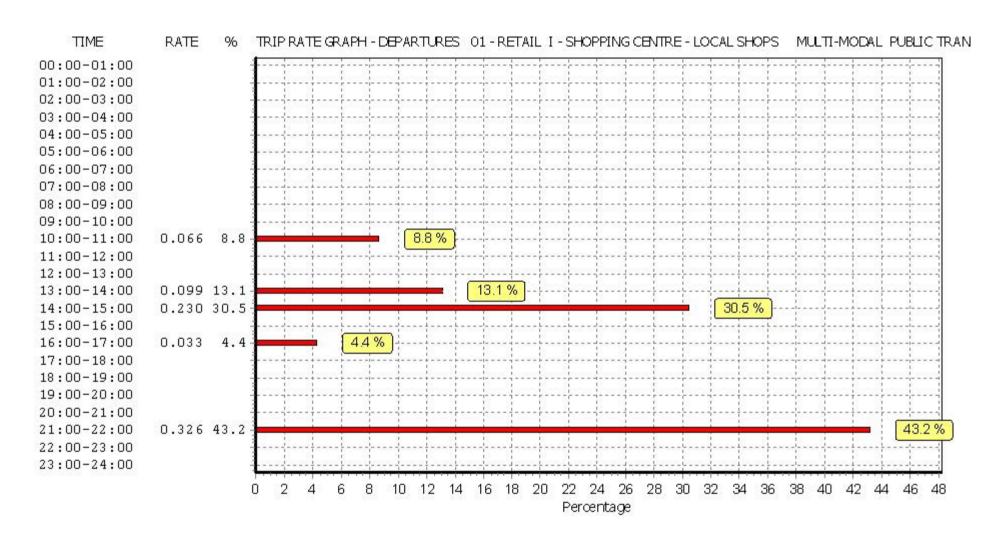
JMP Consultants Ltd. Bothwell Street Glasgow

> TIME RATE TRIP RATE GRAPH - ARRIVALS 01 - RETAIL I - SHOPPING CENTRE - LOCAL SHOPS MULTI-MODAL PUBLIC TRANSPO 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 4.1 % 08:00-09:00 0.033 4.1 09:00-10:00 41% 10:00-11:00 0.033 4.1 4.1 % 11:00-12:00 0.033 4.1 4.1 % 12:00-13:00 0.033 4.1 4.1% 13:00-14:00 0.033 4.1 0.263 32.9 32.9 % 14:00-15:00 0.197 24.6 24.6 % 15:00-16:00 4.1 % 16:00-17:00 0.033 4.1 4.1% 17:00-18:00 0.033 4.1 18:00-19:00 19:00-20:00 20:00-21:00 0.109 13.6 21:00-22:00 13.6 % 22:00-23:00 23:00-24:00 10 12 16 18 22 26 8 14 20 24 28 30 32 34 36 Percentage

Page 46

TRICS 7.1.2 270814 B16.52 (C) 2014 JMP Consultants Ltd on behalf of the TRICS Consortium Retail Local Shops Friday

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406



Monday 08/12/14

Page 47

Retail Local Shops Friday

22:00-23:00 23:00-24:00

JMP Consultants Ltd. Bothwell Street Glasgow

TIME RATE TRIP RATE GRAPH - TOTALS 01 - RETAIL I - SHOPPING CENTRE - LOCAL SHOPS MULTI-MODAL PUBLIC TRANSPOR 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 2.1 % 08:00-09:00 0.033 2.1 09:00-10:00 10:00-11:00 0.099 6.4 6.4 % 2.1 % 11:00-12:00 0.033 2.1 2.1 % 12:00-13:00 0.033 2.1 8.5 % 13:00-14:00 0.132 8.5 0.493 31.7 31.7% 14:00-15:00 12.7 % 0.197 12.7 15:00-16:00 4.2 % 16:00-17:00 0.066 4.2 2.1% 17:00-18:00 0.033 2.1 18:00-19:00 19:00-20:00 20:00-21:00 0.435 28.0 28 % 21:00-22:00

18

Percentage

22

24

20

26

28

30

32

34

10

12

14

16

8

JMP Consultants Ltd. Bothwell Street Glasgow

TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS

MULTI-MODAL TOTAL PEOPLE Calculation factor: 100 sgm

BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	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	2	1520	6.513	2	1520	5.428	2	1520	11.941
08:00 - 09:00	2	1520	15.987	2	1520	15.230	2	1520	31.217
09:00 - 10:00	2	1520	14.605	2	1520	12.368	2	1520	26.973
10:00 - 11:00	2	1520	13.684	2	1520	14.211	2	1520	27.895
11:00 - 12:00	2	1520	15.493	2	1520	14.145	2	1520	29.638
12:00 - 13:00	2	1520	16.579	2	1520	15.658	2	1520	32.237
13:00 - 14:00	2	1520	16.151	2	1520	16.645	2	1520	32.796
14:00 - 15:00	2	1520	17.237	2	1520	18.322	2	1520	35.559
15:00 - 16:00	2	1520	19.539	2	1520	20.592	2	1520	40.131
16:00 - 17:00	2	1520	16.151	2	1520	15.954	2	1520	32.105
17:00 - 18:00	2	1520	16.875	2	1520	18.421	2	1520	35.296
18:00 - 19:00	2	1520	16.020	2	1520	16.184	2	1520	32.204
19:00 - 20:00	2	1520	14.770	2	1520	15.888	2	1520	30.658
20:00 - 21:00	2	1520	8.125	2	1520	8.092	2	1520	16.217
21:00 - 22:00	1	1840	8.098	1	1840	8.043	1	1840	16.141
22:00 - 23:00	<u> </u>						<u> </u>		
23:00 - 24:00									<u> </u>
Total Rates:			215.827			215.181			431.008

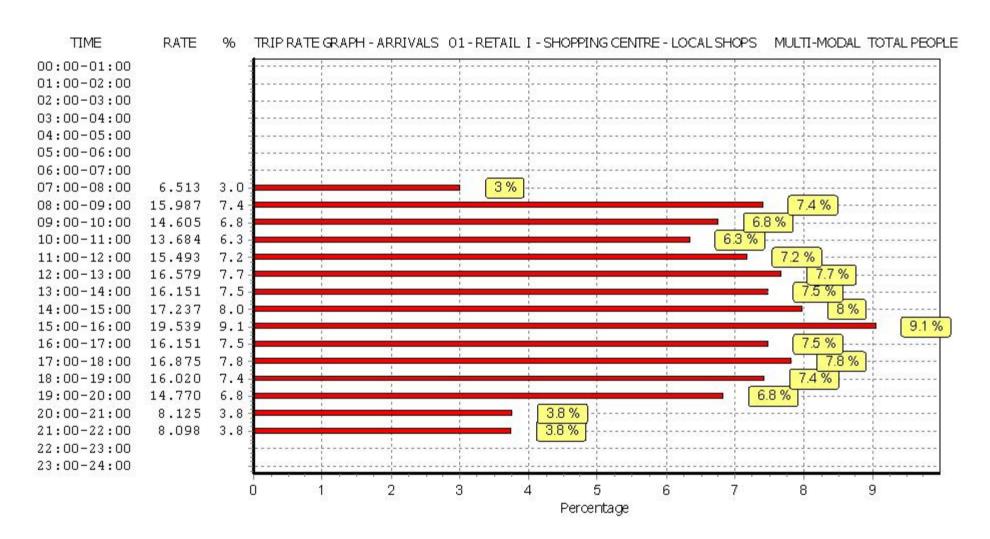
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are 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: 1200 - 1840 (units: sqm) Survey date date range: 01/01/06 - 24/10/13

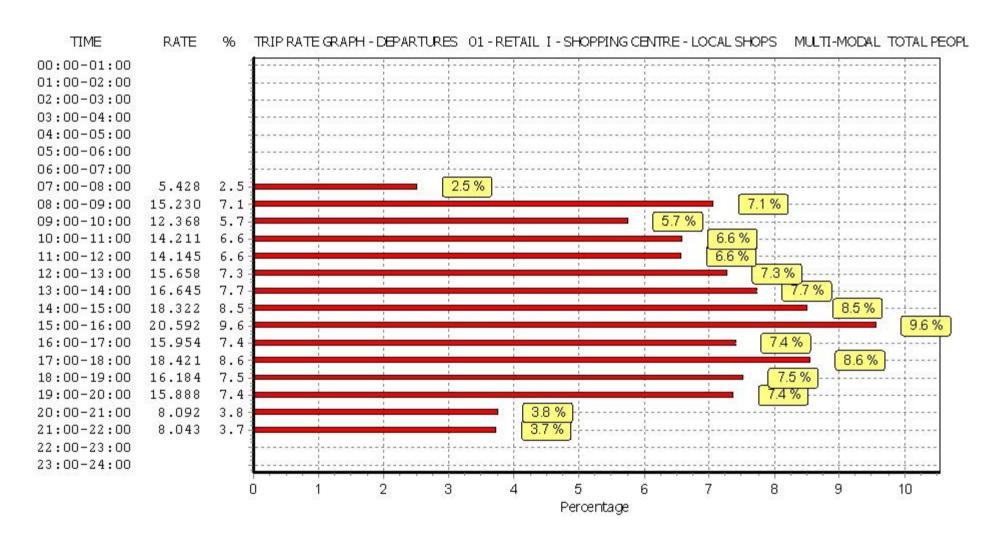
Number of weekdays (Monday-Friday): 2
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0



Retail Local Shops Friday

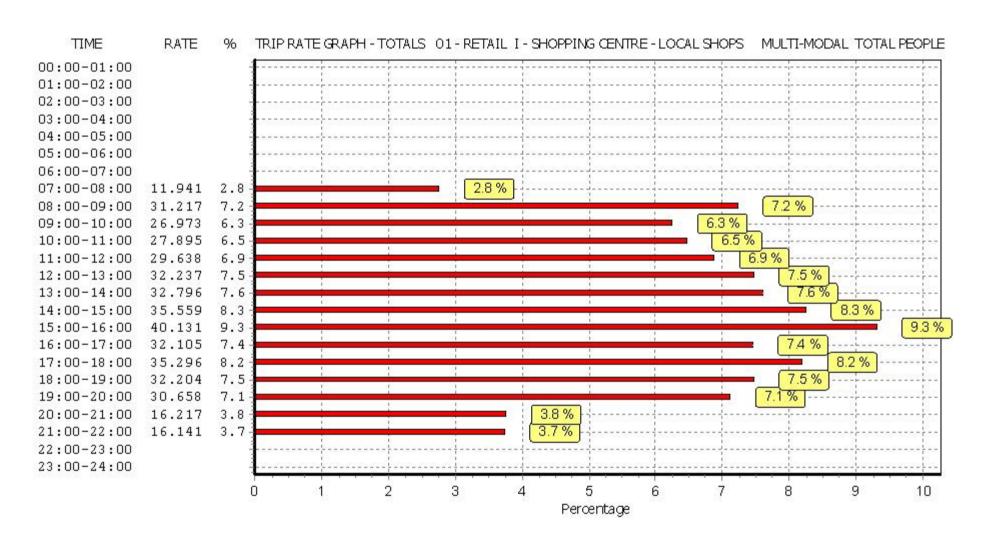
JMP Consultants Ltd. Bothwell Street

Licence No: 846406 Glasgow



Monday 08/12/14 Page 51

Licence No: 846406



TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT Category : A - OFFICE

MULTI-MODAL VEHICLES

Selected regions and areas:

06 WEST MIDLANDS

WK WARWICKSHIRE 1 days
WM WEST MIDLANDS 1 days

08 NORTH WEST

GM GREATER MANCHESTER 1 days MS MERSEYSIDE 1 days

09 NORTH

TV TEES VALLEY 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: Gross floor area

Actual Range: 960 to 9000 (units: sqm)
Range Selected by User: 645 to 70291 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/06 to 17/10/13

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 Wednesday 1 days Thursday 2 days

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

Selected survey types:

Manual count 5 days
Directional ATC Count 0 days

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

Selected Locations:

Town Centre 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:

Commercial Zone 3
Built-Up Zone 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.

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Wednesday 17/12/14 Office Page 2

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

Filtering Stage 3 selection:

Use Class:

B1 5 days

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

Population within 1 mile:

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

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

Population within 5 miles:

25,001 to 50,000	1 days
250,001 to 500,000	1 days
500,001 or More	3 days

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

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	3 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:

Yes	1 days
No	4 days

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

LIST OF SITES relevant to selection parameters

1 GM-02-A-07 LAW OFFICES GREATER MANCHESTER

MOSELEY STREET

MANCHESTER Town Centre Built-Up Zone

Total Gross floor area: 4200 sqm

Survey date: WEDNESDAY 19/10/11 Survey Type: MANUAL

2 MS-02-A-01 OFFICES MERSEYSIDE

CASTLE STREET

LIVERPOOL Town Centre Commercial Zone

Total Gross floor area: 9000 sqm

Survey date: TUESDAY 19/06/07 Survey Type: MANUAL

3 TV-02-A-04 COUNCIL OFFICES TEES VALLEY

CORPORATION ROAD

MIDDLESBROUGH Town Centre Commercial Zone

Total Gross floor area: 3950 sqm

Survey date: TUESDAY 08/10/13 Survey Type: MANUAL

4 WK-02-A-01 OFFICES WARWICKSHIRE

WARWICK ROAD

COVENTRY Town Centre Built-Up Zone

Total Gross floor area: 960 sqm

Survey date: THURSDAY 17/10/13 Survey Type: MANUAL WM-02-A-03 BANK ADMIN WEST MIDLANDS

BRUNSWICK STREET BRINDLEY PLACE BIRMINGHAM Town Centre Commercial Zone

Total Gross floor area: 8200 sqm

Survey date: THURSDAY 27/11/08 Survey Type: MANUAL

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

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

MULTI-MODAL VEHICLES Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 00:30	-								
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	5	5262	0.141	5	5262	0.008	5	5262	0.149
07:30 - 08:00	5	5262	0.266	5	5262	0.023	5	5262	0.289
08:00 - 08:30	5	5262	0.521	5	5262	0.072	5	5262	0.593
08:30 - 09:00	5	5262	0.521	5	5262	0.103	5	5262	0.624
09:00 - 09:30	5	5262	0.277	5	5262	0.080	5	5262	0.357
09:30 - 10:00	5	5262	0.251	5	5262	0.087	5	5262	0.338
10:00 - 10:30	5	5262	0.175	5	5262	0.084	5	5262	0.259
10:30 - 11:00	5	5262	0.156	5	5262	0.106	5	5262	0.262
11:00 - 11:30	5	5262	0.091	5	5262	0.122	5	5262	0.213
11:30 - 12:00	5	5262	0.084	5	5262	0.106	5	5262	0.190
12:00 - 12:30	5	5262	0.114	5	5262	0.103	5	5262	0.217
12:30 - 13:00	5	5262	0.095	5	5262	0.080	5	5262	0.175
13:00 - 13:30	5	5262	0.103	5	5262	0.110	5	5262	0.213
13:30 - 14:00	5	5262	0.091	5	5262	0.099	5	5262	0.190
14:00 - 14:30	5	5262	0.046	5	5262	0.046	5	5262	0.092
14:30 - 15:00	5	5262	0.065	5	5262	0.065	5	5262	0.130
15:00 - 15:30	5	5262	0.084	5	5262	0.095	5	5262	0.179
15:30 - 16:00	5	5262	0.046	5	5262	0.160	5	5262	0.206
16:00 - 16:30	5	5262	0.099	5	5262	0.456	5	5262	0.555
16:30 - 17:00	5	5262	0.049	5	5262	0.243	5	5262	0.292
17:00 - 17:30	5	5262	0.046	5	5262	0.665	5	5262	0.711
17:30 - 18:00	5	5262	0.023	5	5262	0.251	5	5262	0.274
18:00 - 18:30	5	5262	0.011	5	5262	0.091	5	5262	0.102
18:30 - 19:00	5	5262	0.011	5	5262	0.057	5	5262	0.068
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			3.366			3.312			6.678

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

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

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Wednesday 17/12/14 Office Page 5

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

Parameter summary

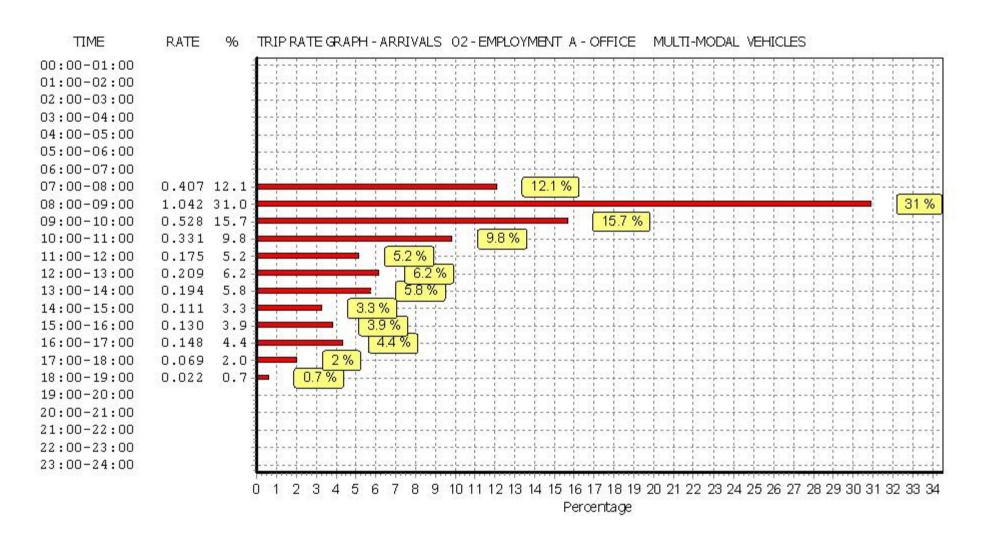
Trip rate parameter range selected: 960 - 9000 (units: sqm) Survey date date range: 01/01/06 - 17/10/13

Number of weekdays (Monday-Friday): 5
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 1

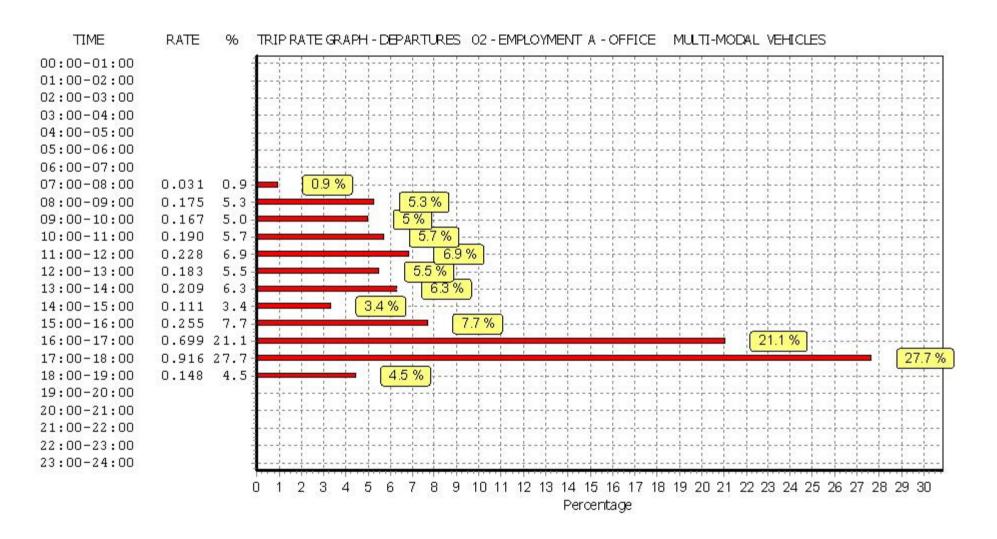
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected 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.

Office

Licence No: 846406

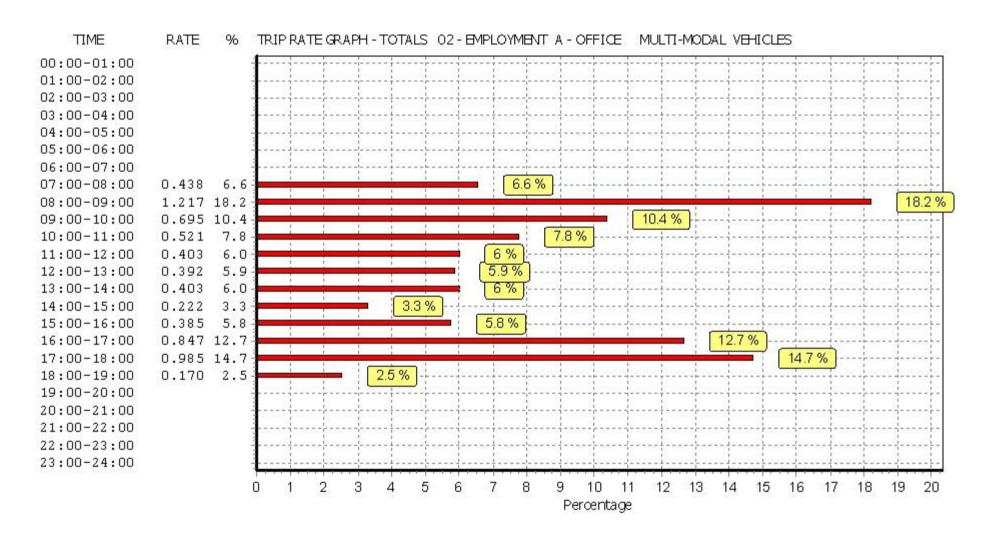


Licence No: 846406



Office

Licence No: 846406



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

MULTI-MODAL TAXIS
Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

07:30 - 08:30 5 5262 0.000 5 5262 0.00 08:00 - 08:30 5 5262 0.008 5 5262 0.00 08:30 - 09:00 5 5262 0.000 5 5262 0.00 09:00 - 09:30 5 5262 0.000 5 5262 0.00 09:30 - 10:00 5 5262 0.000 5 5262 0.00 10:00 - 10:30 5 5262 0.008 5 5262 0.00 10:30 - 11:00 5 5262 0.004 5 5262 0.01 10:30 - 11:00 5 5262 0.011 5 5262 0.01 11:00 - 11:30 5 5262 0.011 5 5262 0.01 11:00 - 12:30 5 5262 0.011 5 5262 0.01 12:00 - 12:30 5 5262 0.011 5 5262 0.01 12:30 - 13:30 5 5262 0.01			ARRIVALS		[DEPARTURES			TOTALS	
Time Range Days GFA Rate Days October Octo		No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
00:30 00:3	Time Range	Days	GFA	Rate	Days	GFA		Days	GFA	Rate
01:30 - 01:30	00:00 - 00:30	-								
01:30 - 02:00	00:30 - 01:00									
02:30 - 02:30	01:00 - 01:30									
02:30 - 02:30										
03:00 - 03:00 03:00 04:00 04:00 04:00 04:00 04:00 04:00 04:00 04:00 05:00 05:00 05:00 05:00 06:0										
03:30 - 03:30 03:30 - 04:00 04:30 - 05:00 04:30 - 05:00 05:30 - 05:30 05:30 - 06:00 05:00 - 05:30 06:30 - 06:30 06:30 - 07:00 07:00 - 07:30 05:50 - 05:50 08:00 - 05:50 08:00 - 05:50 08:00 - 05:50 08:00 - 08:30 05:30 - 5 5262 0.000 55 5262 0.000 55 5262 0.000 55 5262 0.000 08:00 - 08:30 05:30 - 5 5262 0.000 08:00 - 08:30 05:30 - 5 5262 0.000 08:00 - 08:30 05:30 - 5 5262 0.000 08:00 - 08:30 05:30 - 5 5262 0.000 08:30 - 09:30 05:30 - 09:30 09:30 - 10:00 05:30 - 09:30 05:3										
03:30 - 04:00										
04:30 - 04:30 04:30 - 05:00 05:00 - 05:30 06:30 - 06:30 06:00 06:00 - 06:30 06:30 - 06:30 06:30 - 06:30 06:30 - 06:30 06:30 - 06:30 06:30 - 06:30 06:30 - 06:30 06:30 - 06:30 06:30 - 06:30 06:30 - 06:30 06:30 - 06:30 06:30 - 06:30 06:30 - 06:30 06:30 - 06:30 06:30 - 06:30 05 5262 0.000 5 5262 0.000 5 5262 0.000 5 5262 0.000 5 5262 0.000 5 5262 0.000 5 5262 0.000 5 5262 0.000 08:30 - 09:00 5 5262 0.000 5 5262 0.001 5 5262 0.000 09:30 - 10:00 5 5262 0.000 5 5262 0.000 5 5262 0.000 09:30 - 10:00 5 5262 0.000 5 5262 0.000 5 5262 0.000 10:00 - 10:30 5 5262 0.000 5 5262 0.000 5 5262 0.000 10:00 - 10:30 5 5262 0.001 5 5262 0.000 5 5262 0.000 11:00 - 11:30 5 5262 0.001 5 5262 0.001 5 5262 0.001 11:00 - 11:30 5 5262 0.001 5 5262 0.001 5 5262 0.001 11:00 - 11:30 5 5262 0.001 5 5262 0.001 5 5262 0.001 11:00 - 11:30 5 5262 0.001 5 5262 0.001 5 5262 0.001 11:00 - 11:30 5 5262 0.001 5 5262 0.001 5 5262 0.001 11:00 - 11:30 5 5262 0.001 5 5262 0.001 5 5262 0.001 11:00 - 11:30 5 5262 0.001 5 5262 0.000 5 5262 0.000 5 5262 0.000 5 5262 0.000 5 5262 0.000 5 5262 0.000 5 5262 0.000 5 5262 0.000 5 5262 0.000 5 5262 0.000 5 5262 0.000 5 5262 0.000 5 5262 0.000 5 5262 0.000 5 5262 0.000 5 5262 0.000 5										
04:30 - 05:00										
05:30 - 05:30 06:30 06:30 06:30 06:30 06:30 06:30 06:30 07:30 06:30 07:30 06:30 07:30 08:30 08:30										
05:30 - 06:00										
06:00 - 06:30 06:30 - 07:00 06:30 - 07:00 07:00 - 07:30 5 5262 0.000 5 5262 0.00 07:30 - 08:00 5 5262 0.000 5 5262 0.00 08:00 - 08:30 5 5262 0.008 5 5262 0.00 08:30 - 09:00 5 5262 0.001 5 5262 0.00 09:00 - 09:30 5 5262 0.000 5 5262 0.00 09:00 - 09:30 5 5262 0.008 5 5262 0.00 09:30 - 10:00 5 5262 0.008 5 5262 0.00 10:00 - 10:30 5 5262 0.004 5 5262 0.00 11:00 - 11:30 5 5262 0.004 5 5262 0.00 11:00 - 12:30 5 5262 0.011 5 5262 0.01 11:30 - 12:00 5 5262 0.011 5 5262 0.01<										
06:30 - 07:00										
07:00 - 07:30										
07:30 - 08:00		5	5262	0.000	5	5262	0.000	5	5262	0.000
08:00 - 08:30 5 5262 0.008 5 5262 0.011 08:30 - 09:00 5 5262 0.011 5 5262 0.011 5 5262 0.00 09:00 - 09:30 5 5262 0.000 5 5262 0.00 09:30 - 10:00 5 5262 0.008 5 5262 0.00 10:00 - 10:30 5 5262 0.004 5 5262 0.00 10:00 - 11:30 5 5262 0.011 5 5262 0.01 10:01 - 11:30 5 5262 0.011 5 5262 0.02 11:00 - 11:30 5 5262 0.011 5 5262 0.02 11:30 - 12:00 5 5262 0.011 5 5262 0.01 12:00 - 12:30 5 5262 0.011 5 5262 0.01 12:30 - 13:00 5 5262 0.004 5 5262 0.01 13:30 - 13:										0.000
08:30 - 09:00 5 5262 0.011 5 5262 0.00 09:00 - 09:30 5 5262 0.000 5 5262 0.000 5 5262 0.00 09:30 - 10:00 5 5262 0.008 5 5262 0.001 10:00 <										0.016
09:00 - 09:30										0.022
09:30 - 10:00										0.000
10:00 - 10:30										0.016
10:30 - 11:00										0.008
11:00 - 11:30										0.022
11:30 - 12:00 5 5262 0.011 5 5262 0.012 12:00 - 12:30 5 5262 0.011 5 5262 0.001 12:30 - 13:00 5 5262 0.004 5 5262 0.004 13:00 - 13:30 5 5262 0.015 5 5262 0.015 13:30 - 14:00 5 5262 0.011 5 5262 0.015 14:00 - 14:30 5 5262 0.000 5 5262 0.00 14:30 - 15:00 5 5262 0.000 5 5262 0.00 15:30 - 15:30 5 5262 0.000 5 5262 0.00 15:30 - 16:00 5 5262 0.000 5 5262 0.00 15:30 - 16:00 5 5262 0.000 5 5262 0.00 16:30 - 17:00 5 5262 0.000 5 5262 0.00 16:30 - 16:30 5 5262 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.022</td></td<>										0.022
12:00 - 12:30 5 5262 0.011 5 5262 0.004 12:30 - 13:00 5 5262 0.004 5 5262 0.00 13:00 - 13:30 5 5262 0.015 5 5262 0.015 13:30 - 14:00 5 5262 0.011 5 5262 0.03 14:00 - 14:30 5 5262 0.000 5 5262 0.00 14:30 - 15:00 5 5262 0.000 5 5262 0.00 15:00 - 15:30 5 5262 0.000 5 5262 0.00 15:30 - 16:00 5 5262 0.000 5 5262 0.00 15:30 - 16:00 5 5262 0.000 5 5262 0.00 16:30 - 17:00 5 5262 0.000 5 5262 0.00 16:30 - 17:00 5 5262 0.000 5 5262 0.00 17:30 - 18:00 5 5262 0.										0.022
12:30 - 13:00 5 5262 0.004 5 5262 0.00 13:00 - 13:30 5 5262 0.015 5 5262 0.015 5 5262 0.03 13:30 - 14:00 5 5262 0.011 5 5262 0.011 5 5262 0.001 5 5262 0.00 5 5262 0.00 5 5262 0.00 5 5262 0.00 5 5262 0.00 1 5 5262 0.00 5 5262 0.00 5 5262 0.00 1 5 5262 0.00 5 5262 0.00 1 5 5262 0.00 5 5262 0.00 1 5 5262 0.00 1 5 5262 0.00 1 5 5262 0.00 1 5 5262 0.00 1 5 5262 0.00 1 5 5262 0.00 1 5 5262 0.00										0.022
13:00 - 13:30 5 5262 0.015 5 5262 0.03 13:30 - 14:00 5 5262 0.011 5 5262 0.02 14:00 - 14:30 5 5262 0.000 5 5262 0.00 14:30 - 15:00 5 5262 0.000 5 5262 0.00 15:00 - 15:30 5 5262 0.000 5 5262 0.00 15:30 - 16:00 5 5262 0.000 5 5262 0.00 15:30 - 16:00 5 5262 0.000 5 5262 0.00 15:30 - 16:00 5 5262 0.000 5 5262 0.00 16:00 - 16:30 5 5262 0.000 5 5262 0.00 16:30 - 17:00 5 5262 0.000 5 5262 0.00 17:30 - 18:30 5 5262 0.011 5 5262 0.00 18:00 - 18:30 5 5262 0.00										0.008
13:30 - 14:00 5 5262 0.011 5 5262 0.02 14:00 - 14:30 5 5262 0.000 5 5262 0.00 14:30 - 15:00 5 5262 0.000 5 5262 0.00 15:00 - 15:30 5 5262 0.000 5 5262 0.00 15:30 - 16:00 5 5262 0.000 5 5262 0.00 16:00 - 16:30 5 5262 0.000 5 5262 0.00 16:30 - 17:00 5 5262 0.000 5 5262 0.00 16:30 - 17:00 5 5262 0.000 5 5262 0.00 17:00 - 17:30 5 5262 0.001 5 5262 0.00 17:30 - 18:00 5 5262 0.004 5 5262 0.00 18:00 - 18:30 5 5262 0.000 5 5262 0.00 18:30 - 19:00 5 5262 0.00										0.030
14:00 - 14:30 5 5262 0.000 5 5262 0.00 14:30 - 15:00 5 5262 0.000 5 5262 0.00 15:00 - 15:30 5 5262 0.000 5 5262 0.00 15:30 - 16:00 5 5262 0.000 5 5262 0.00 15:30 - 16:00 5 5262 0.000 5 5262 0.00 16:30 - 16:30 5 5262 0.011 5 5262 0.00 16:30 - 17:00 5 5262 0.001 5 5262 0.02 17:00 - 17:30 5 5262 0.000 5 5262 0.02 17:30 - 18:00 5 5262 0.001 5 5262 0.02 18:00 - 18:30 5 5262 0.004 5 5262 0.00 18:30 - 19:00 5 5262 0.000 5 5262 0.00 19:30 - 20:00 5 5262 0.00										0.022
14:30 - 15:00 5 5262 0.000 5 5262 0.00 15:00 - 15:30 5 5262 0.000 5 5262 0.00 15:30 - 16:00 5 5262 0.000 5 5262 0.00 16:00 - 16:30 5 5262 0.011 5 5262 0.02 16:30 - 17:00 5 5262 0.000 5 5262 0.02 17:00 - 17:30 5 5262 0.000 5 5262 0.00 17:30 - 18:00 5 5262 0.001 5 5262 0.00 18:00 - 18:30 5 5262 0.004 5 5262 0.00 18:30 - 19:00 5 5262 0.000 5 5262 0.00 18:30 - 19:00 5 5262 0.000 5 5262 0.00 19:30 - 20:00 5 5262 0.000 5 5262 0.00 20:00 - 20:30 22:00 - 22:30 22:00 - 22:30<										0.000
15:00 - 15:30 5 5262 0.000 5 5262 0.00 15:30 - 16:00 5 5262 0.000 5 5262 0.00 16:00 - 16:30 5 5262 0.011 5 5262 0.02 16:30 - 17:00 5 5262 0.000 5 5262 0.00 17:00 - 17:30 5 5262 0.011 5 5262 0.00 17:30 - 18:00 5 5262 0.011 5 5262 0.01 17:30 - 18:00 5 5262 0.004 5 5262 0.00 18:00 - 18:30 5 5262 0.004 5 5262 0.00 18:30 - 19:00 5 5262 0.000 5 5262 0.00 19:00 - 19:30 5 5262 0.000 5 5262 0.00 20:00 - 20:30 20:00 20:00 5 5262 0.00 5 5262 0.00 21:30 - 22:00										0.000
15:30 - 16:00 5 5262 0.000 5 5262 0.00 16:00 - 16:30 5 5262 0.011 5 5262 0.01 16:30 - 17:00 5 5262 0.000 5 5262 0.000 17:00 - 17:30 5 5262 0.011 5 5262 0.01 17:30 - 18:00 5 5262 0.004 5 5262 0.02 18:00 - 18:30 5 5262 0.000 5 5262 0.00 18:30 - 19:00 5 5262 0.000 5 5262 0.00 19:00 - 19:30 5 5262 0.000 5 5262 0.00 19:30 - 20:00 5 5262 0.000 5 5262 0.00 20:00 - 20:30 5 5262 0.000 5 5262 0.00 21:00 - 21:30 7 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.000</td></t<>										0.000
16:00 - 16:30 5 5262 0.011 5 5262 0.02 16:30 - 17:00 5 5262 0.000 5 5262 0.00 17:00 - 17:30 5 5262 0.011 5 5262 0.01 17:30 - 18:00 5 5262 0.004 5 5262 0.00 18:00 - 18:30 5 5262 0.000 5 5262 0.00 18:30 - 19:00 5 5262 0.000 5 5262 0.00 19:00 - 19:30 5 5262 0.000 5 5262 0.00 19:30 - 20:00 5 5262 0.000 5 5262 0.00 20:30 - 21:30 5 5262 0.000 5 5262 0.00 21:00 - 21:30 5 5262 0.000 5 5262 0.00 22:00 - 22:30 5 5262 0.000 5 5262 0.00 23:00 - 23:30 6 5 5262 0.000 5 5262 0.00 23:00 - 23:30 6										0.000
16:30 - 17:00 5 5262 0.000 5 5262 0.00 17:00 - 17:30 5 5262 0.011 5 5262 0.01 17:30 - 18:00 5 5262 0.004 5 5262 0.00 18:00 - 18:30 5 5262 0.000 5 5262 0.00 18:30 - 19:00 5 5262 0.000 5 5262 0.00 19:00 - 19:30 5 5262 0.000 5 5262 0.00 19:30 - 20:00 5 5262 0.000 5 5262 0.00 20:00 - 20:30 6 0.000 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.022</td>										0.022
17:00 - 17:30 5 5262 0.011 5 5262 0.02 17:30 - 18:00 5 5262 0.004 5 5262 0.00 18:00 - 18:30 5 5262 0.000 5 5262 0.00 18:30 - 19:00 5 5262 0.000 5 5262 0.00 19:00 - 19:30 19:30 - 20:00 5 5262 0.00 5 5262 0.00 20:30 - 21:00 20:30 - 21:00 21:30 - 22:00 22:00 - 22:30 22:30 - 23:30 23:30 - 24:00 23:30 - 24:00 23:30 - 24:00 23:30 - 24:00 20:01 - 20:01 20:01 - 20:0										0.000
17:30 - 18:00 5 5262 0.004 5 5262 0.00 18:00 - 18:30 5 5262 0.000 5 5262 0.00 18:30 - 19:00 5 5262 0.000 5 5262 0.00 19:00 - 19:30 19:30 - 20:00										0.022
18:00 - 18:30 5 5262 0.000 5 5262 0.000 18:30 - 19:00 5 5262 0.000 5 5262 0.000 19:00 - 19:30 19:30 - 20:00 19:30 - 20:30 19:30										0.008
18:30 - 19:00 5 5262 0.000 5 5262 0.000 19:00 - 19:30 0.000 0.000 0.000 0.000 0.000 0.000 19:30 - 20:00 0.000 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.000</td>										0.000
19:00 - 19:30 19:30 - 20:00 20:00 - 20:30 20:30 - 21:00 21:00 - 21:30 21:30 - 22:00 22:00 - 22:30 22:30 - 23:00 23:00 - 23:30 23:30 - 24:00										0.000
19:30 - 20:00 20:00 - 20:30 20:30 - 21:00 21:00 - 21:30 21:30 - 22:00 22:00 - 22:30 22:30 - 23:00 23:00 - 23:30 23:30 - 24:00 23:30 - 24:00			3202	0.000	3	0202	3.000		3202	3.000
20:00 - 20:30 20:30 - 21:00 21:00 - 21:30 21:30 - 22:00 22:00 - 22:30 22:30 - 23:00 23:00 - 23:30 23:30 - 24:00										
20:30 - 21:00 21:00 - 21:30 21:30 - 22:00 22:00 - 22:30 22:30 - 23:00 23:00 - 23:30 23:30 - 24:00										
21:00 - 21:30 21:30 - 22:00 22:00 - 22:30 22:30 - 23:00 23:00 - 23:30 23:30 - 24:00										
21:30 - 22:00 22:00 - 22:30 22:30 - 23:00 23:00 - 23:30 23:30 - 24:00										
22:00 - 22:30 22:30 - 23:00 23:00 - 23:30 23:30 - 24:00										
22:30 - 23:00 23:00 - 23:30 23:30 - 24:00										
23:00 - 23:30 23:30 - 24:00										
23:30 - 24:00										
Total Rates: 0.131 0.131 0.26	Total Rates:			0.131			0.131			0.262

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

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

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Wednesday 17/12/14 Office Page 10

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

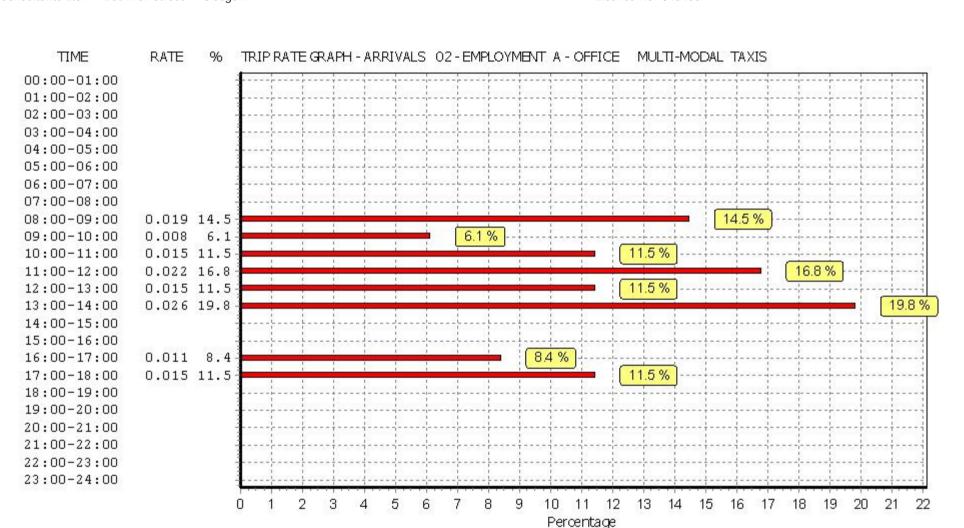
Parameter summary

Trip rate parameter range selected: 960 - 9000 (units: sqm) Survey date date range: 01/01/06 - 17/10/13

Number of weekdays (Monday-Friday): 5
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 1

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.

Office



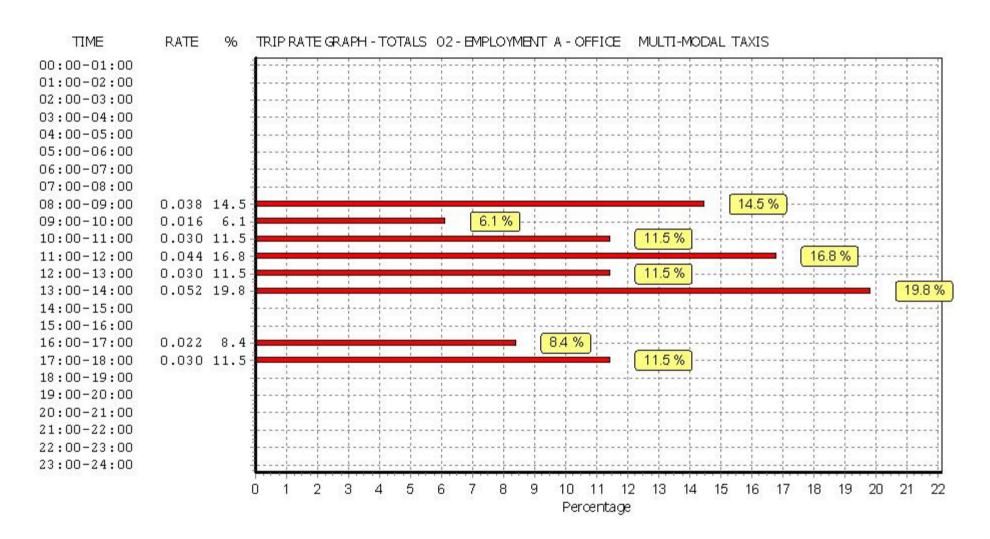
Licence No: 846406

TIME RATE TRIP RATE GRAPH - DEPARTURES 02 - EMPLOYMENT A - OFFICE MULTI-MODAL TAXIS 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 14.5 % 08:00-09:00 0.019 14.5 6.1 % 09:00-10:00 0.008 6.1 11.5 % 10:00-11:00 0.015 11.5 16.8 % 11:00-12:00 0.022 16.8 11.5 % 12:00-13:00 0.015 11.5 13:00-14:00 0.026 19.8 19.8 % 14:00-15:00 15:00-16:00 8.4 % 16:00-17:00 0.011 8.4 11.5 % 17:00-18:00 0.015 11.5 18:00-19:00 19:00-20:00 20:00-21:00 21:00-22:00 22:00-23:00 23:00-24:00 11 12 3 5 8 10 13 14 15 16 17 18 19

Percentage

Licence No: 846406

Licence No: 846406



Page 14

Licence No: 846406

JMP Consultants Ltd. **Bothwell Street** Glasgow

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

MULTI-MODAL OGVS Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 00:30	,			,			,		
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	5	5262	0.000	5	5262	0.000	5	5262	0.000
07:30 - 08:00	5	5262	0.004	5	5262	0.000	5	5262	0.004
08:00 - 08:30	5	5262	0.004	5	5262	0.000	5	5262	0.004
08:30 - 09:00	5	5262	0.004	5	5262	0.004	5	5262	0.008
09:00 - 09:30	5	5262	0.004	5	5262	0.004	5	5262	0.008
09:30 - 10:00	5	5262	0.004	5	5262	0.000	5	5262	0.000
10:00 - 10:30	5	5262	0.000	5	5262	0.000	5	5262	0.000
10:30 - 11:00	5	5262	0.000	5	5262	0.004	5	5262	0.004
11:00 - 11:30	5	5262	0.000	5	5262	0.004	5	5262	
	5	5262	0.000						0.000
11:30 - 12:00				5	5262	0.000	5	5262	0.000
12:00 - 12:30	5	5262	0.000	5	5262	0.000	5	5262	0.000
12:30 - 13:00	5	5262	0.000	5	5262	0.000	5	5262	0.000
13:00 - 13:30	5	5262	0.004	5	5262	0.000	5	5262	0.004
13:30 - 14:00	5	5262	0.000	5	5262	0.000	5	5262	0.000
14:00 - 14:30	5	5262	0.004	5	5262	0.004	5	5262	0.008
14:30 - 15:00	5	5262	0.000	5	5262	0.000	5	5262	0.000
15:00 - 15:30	5	5262	0.004	5	5262	0.004	5	5262	0.008
15:30 - 16:00	5	5262	0.000	5	5262	0.000	5	5262	0.000
16:00 - 16:30	5	5262	0.000	5	5262	0.000	5	5262	0.000
16:30 - 17:00	5	5262	0.000	5	5262	0.000	5	5262	0.000
17:00 - 17:30	5	5262	0.000	5	5262	0.000	5	5262	0.000
17:30 - 18:00	5	5262	0.000	5	5262	0.000	5	5262	0.000
18:00 - 18:30	5	5262	0.000	5	5262	0.000	5	5262	0.000
18:30 - 19:00	5	5262	0.000	5	5262	0.000	5	5262	0.000
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.024			0.024			0.048

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

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

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Wednesday 17/12/14 Office Page 15

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

Parameter summary

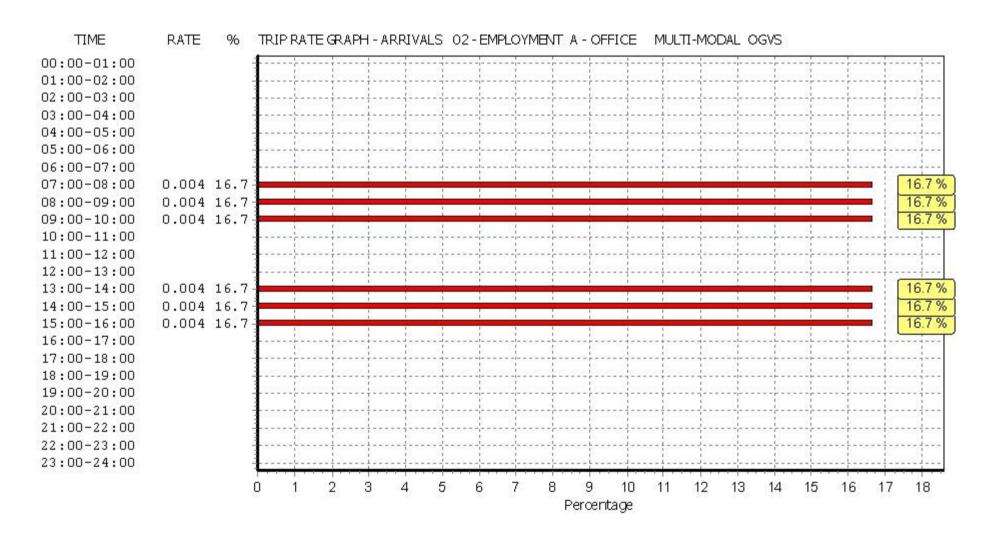
Trip rate parameter range selected: 960 - 9000 (units: sqm) Survey date date range: 01/01/06 - 17/10/13

Number of weekdays (Monday-Friday):5Number of Saturdays:0Number of Sundays:0Surveys manually removed from selection:1

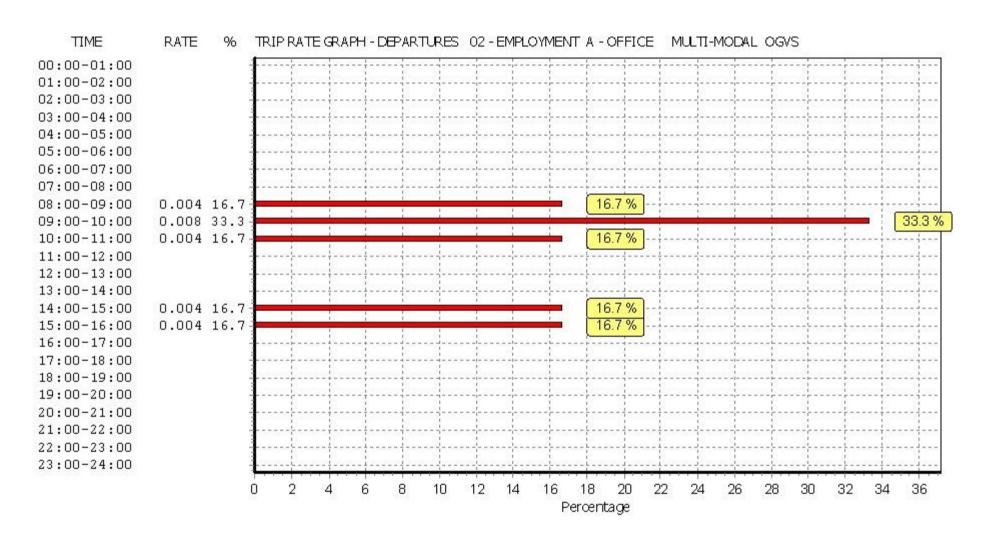
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected 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.

Office

Licence No: 846406



Licence No: 846406





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

MULTI-MODAL PSVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 00:30	,			,			,		
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	5	5262	0.000	5	5262	0.000	5	5262	0.000
07:30 - 08:00	5	5262	0.000	5	5262	0.000	5	5262	0.000
08:00 - 08:30	5	5262	0.000	5	5262	0.000	5	5262	0.000
08:30 - 09:00	5	5262	0.000	5	5262	0.000	5	5262	0.000
09:00 - 09:30	5	5262	0.000	5	5262	0.000	5	5262	0.000
09:30 - 10:00	5	5262	0.000	5				5262	
				5	5262	0.000	5		0.000
10:00 - 10:30	5 5	5262	0.000	5	5262	0.000	5 5	5262	0.000
10:30 - 11:00		5262	0.000		5262	0.000		5262	0.000
11:00 - 11:30	5	5262	0.000	5	5262	0.000	5	5262	0.000
11:30 - 12:00	5	5262	0.000	5	5262	0.000	5	5262	0.000
12:00 - 12:30	5	5262	0.000	5	5262	0.000	5	5262	0.000
12:30 - 13:00	5	5262	0.000	5	5262	0.000	5	5262	0.000
13:00 - 13:30	5	5262	0.000	5	5262	0.000	5	5262	0.000
13:30 - 14:00	5	5262	0.000	5	5262	0.000	5	5262	0.000
14:00 - 14:30	5	5262	0.000	5	5262	0.000	5	5262	0.000
14:30 - 15:00	5	5262	0.000	5	5262	0.000	5	5262	0.000
15:00 - 15:30	5	5262	0.000	5	5262	0.000	5	5262	0.000
15:30 - 16:00	5	5262	0.000	5	5262	0.000	5	5262	0.000
16:00 - 16:30	5	5262	0.000	5	5262	0.000	5	5262	0.000
16:30 - 17:00	5	5262	0.000	5	5262	0.000	5	5262	0.000
17:00 - 17:30	5	5262	0.000	5	5262	0.000	5	5262	0.000
17:30 - 18:00	5	5262	0.000	5	5262	0.000	5	5262	0.000
18:00 - 18:30	5	5262	0.000	5	5262	0.000	5	5262	0.000
18:30 - 19:00	5	5262	0.000	5	5262	0.000	5	5262	0.000
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.000			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.

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Wednesday 17/12/14 Office Page 20

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

Parameter summary

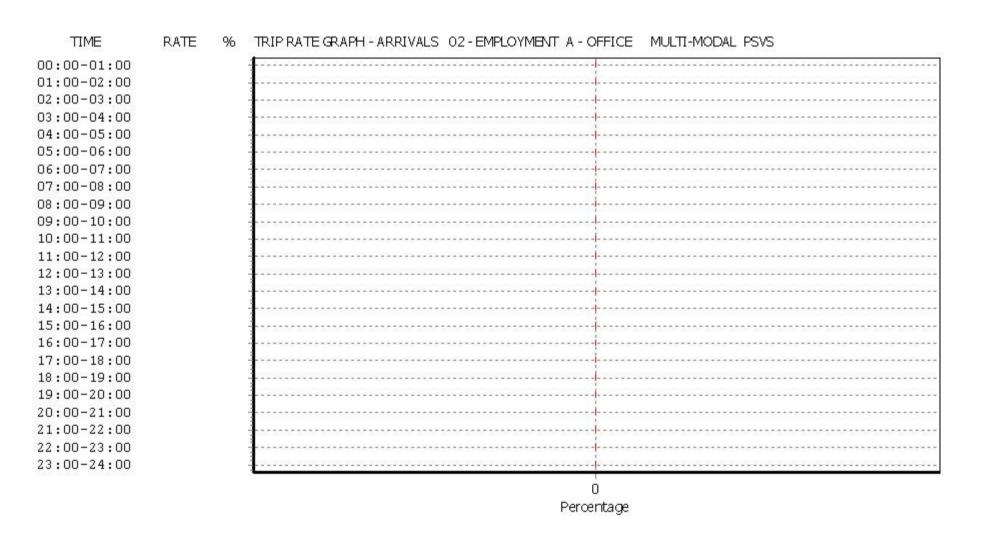
Trip rate parameter range selected: 960 - 9000 (units: sqm) Survey date date range: 01/01/06 - 17/10/13

Number of weekdays (Monday-Friday): 5
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 1

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.

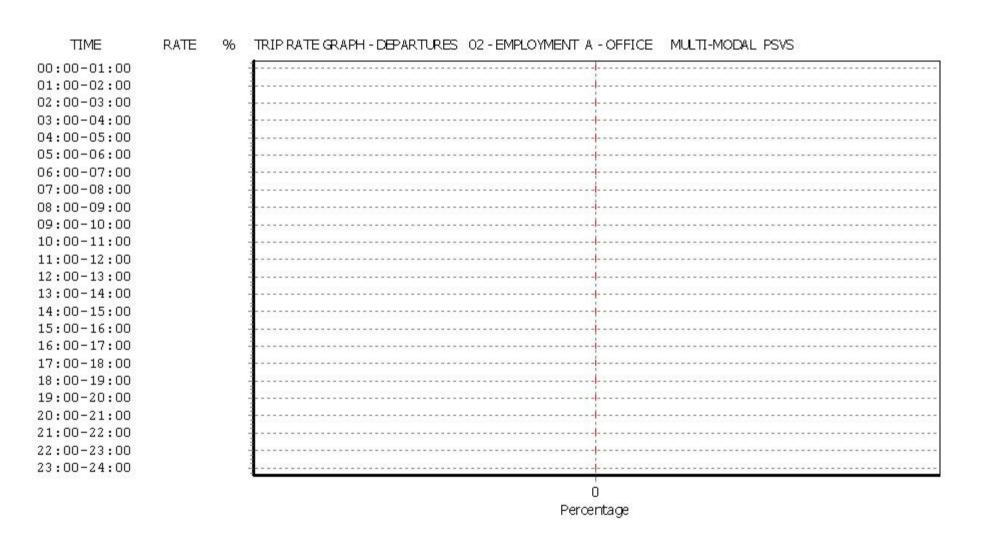
Office

Licence No: 846406



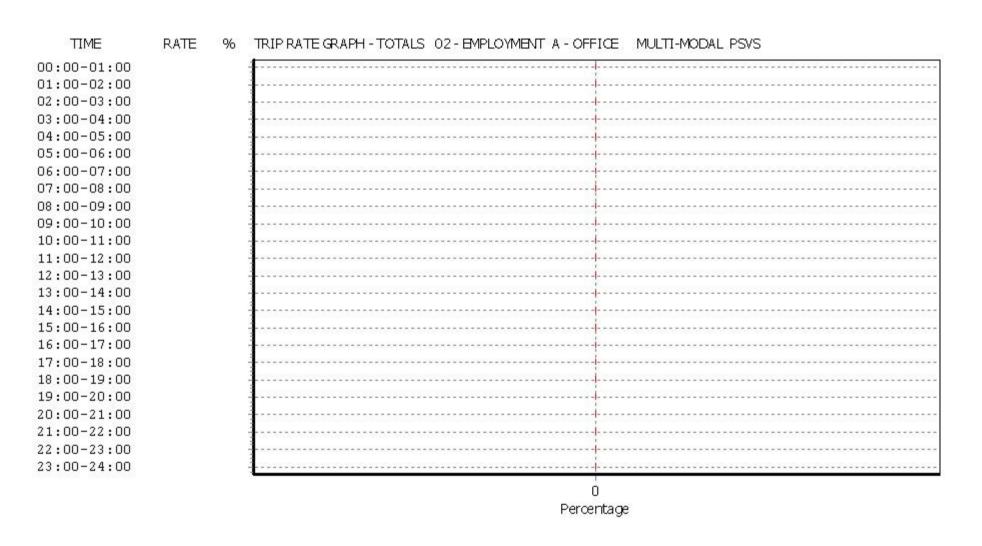
Office

Licence No: 846406



Office

Licence No: 846406



Licence No: 846406

JMP Consultants Ltd. Bothwell Street Glasgow

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

MULTI-MODAL CYCLISTS
Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 00:30	,			,			,		
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	5	5262	0.000	5	5262	0.000	5	5262	0.000
07:30 - 08:00	5	5262	0.004	5	5262	0.000	5	5262	0.004
08:00 - 08:30	5	5262	0.004	5	5262	0.000	5	5262	0.004
08:30 - 09:00	5	5262	0.004	5	5262	0.000	5	5262	0.004
09:00 - 09:30	5	5262	0.004	5	5262	0.000	5	5262	0.004
09:30 - 10:00	5	5262	0.004	5	5262	0.000	5	5262	0.004
10:00 - 10:30	5	5262	0.011	5	5262	0.004	5	5262	0.015
10:30 - 11:00	5	5262	0.011	5	5262	0.015	5	5262	0.026
11:00 - 11:30	5	5262	0.008	5	5262	0.008	5	5262	0.016
11:30 - 12:00	5	5262	0.004	5	5262	0.004	5	5262	0.008
12:00 - 12:30	5	5262	0.004	5	5262	0.004	5	5262	0.008
12:30 - 13:00	5	5262	0.000	5	5262	0.004	5	5262	0.012
13:00 - 13:30	5	5262	0.004	5	5262	0.004	5	5262	0.004
13:30 - 14:00	5	5262	0.004	5	5262	0.008	5	5262	0.004
14:00 - 14:30	5	5262	0.000	5	5262	0.000	5	5262	0.000
14:30 - 15:00	5	5262	0.000	5	5262	0.000	5	5262	0.000
15:00 - 15:30	5	5262	0.004	5	5262	0.004	5	5262	0.008
15:30 - 16:00	5	5262	0.004	5	5262	0.004	5	5262	0.008
16:00 - 16:30	5	5262	0.004	5	5262	0.004	5	5262	0.004
16:30 - 17:00	5	5262	0.000	5	5262	0.004	5	5262	0.004
17:00 - 17:30	5	5262	0.004	5		0.008	5	5262	
					5262				0.015
17:30 - 18:00	5	5262	0.000	5	5262	0.004	5	5262	0.004
18:00 - 18:30	5 5	5262	0.000	5 5	5262	0.000	5 5	5262	0.000
18:30 - 19:00	5	5262	0.000	5	5262	0.000	5	5262	0.000
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.082			0.082			0.164

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

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

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Wednesday 17/12/14 Office Page 25

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

Parameter summary

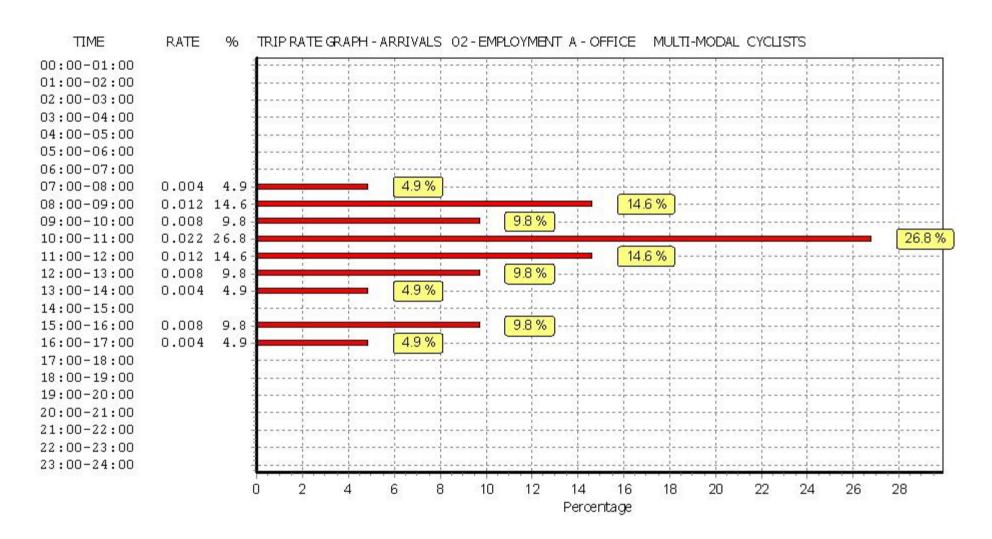
Trip rate parameter range selected: 960 - 9000 (units: sqm) Survey date date range: 01/01/06 - 17/10/13

Number of weekdays (Monday-Friday): 5
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 1

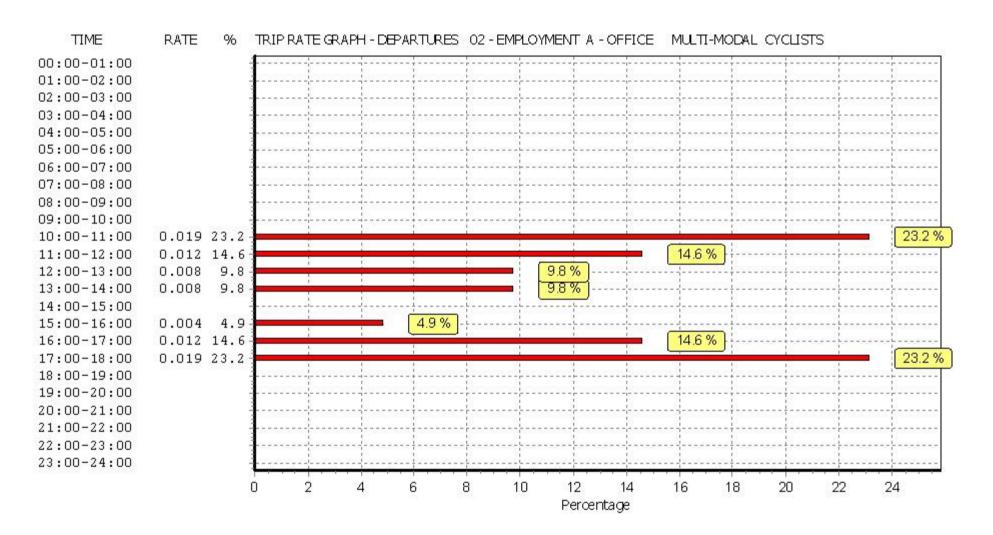
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected 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.

Office

Licence No: 846406

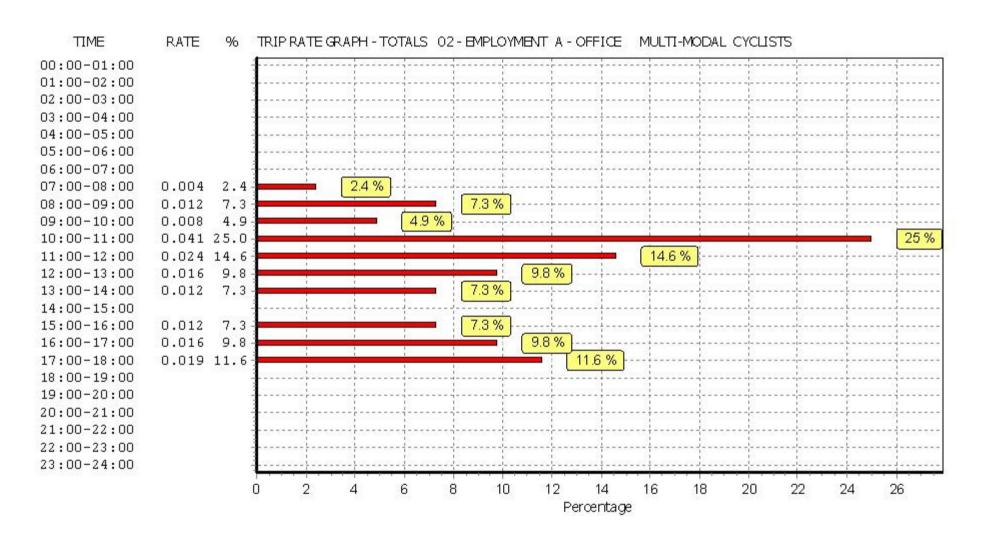


Licence No: 846406



Office

Licence No: 846406



TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS			EPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 00:30	-								
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	5	5262	0.163	5	5262	0.011	5	5262	0.174
07:30 - 08:00	5	5262	0.293	5	5262	0.004	5	5262	0.297
08:00 - 08:30	5	5262	0.566	5	5262	0.049	5	5262	0.615
08:30 - 09:00	5	5262	0.559	5	5262	0.061	5	5262	0.620
09:00 - 09:30	5	5262	0.308	5	5262	0.072	5	5262	0.380
09:30 - 10:00	5	5262	0.266	5	5262	0.091	5	5262	0.357
10:00 - 10:30	5	5262	0.186	5	5262	0.080	5	5262	0.266
10:30 - 11:00	5	5262	0.163	5	5262	0.114	5	5262	0.277
11:00 - 11:30	5	5262	0.080	5	5262	0.144	5	5262	0.224
11:30 - 12:00	5	5262	0.080	5	5262	0.118	5	5262	0.198
12:00 - 12:30	5	5262	0.106	5	5262	0.087	5	5262	0.193
12:30 - 13:00	5	5262	0.103	5	5262	0.065	5	5262	0.168
13:00 - 13:30	5	5262	0.133	5	5262	0.099	5	5262	0.232
13:30 - 14:00	5	5262	0.087	5	5262	0.122	5	5262	0.209
14:00 - 14:30	5	5262	0.061	5	5262	0.057	5	5262	0.118
14:30 - 15:00	5	5262	0.068	5	5262	0.103	5	5262	0.171
15:00 - 15:30	5	5262	0.091	5	5262	0.106	5	5262	0.197
15:30 - 16:00	5	5262	0.042	5	5262	0.190	5	5262	0.232
16:00 - 16:30	5	5262	0.095	5	5262	0.498	5	5262	0.593
16:30 - 17:00	5	5262	0.034	5	5262	0.277	5	5262	0.311
17:00 - 17:30	5	5262	0.034	5	5262	0.715	5	5262	0.749
17:30 - 18:00	5	5262	0.000	5	5262	0.258	5	5262	0.258
18:00 - 18:30	5	5262	0.008	5	5262	0.099	5	5262	0.107
18:30 - 19:00	5	5262	0.004	5	5262	0.061	5	5262	0.065
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			3.530			3.481			7.011

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

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

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Wednesday 17/12/14 Office Page 30

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

Parameter summary

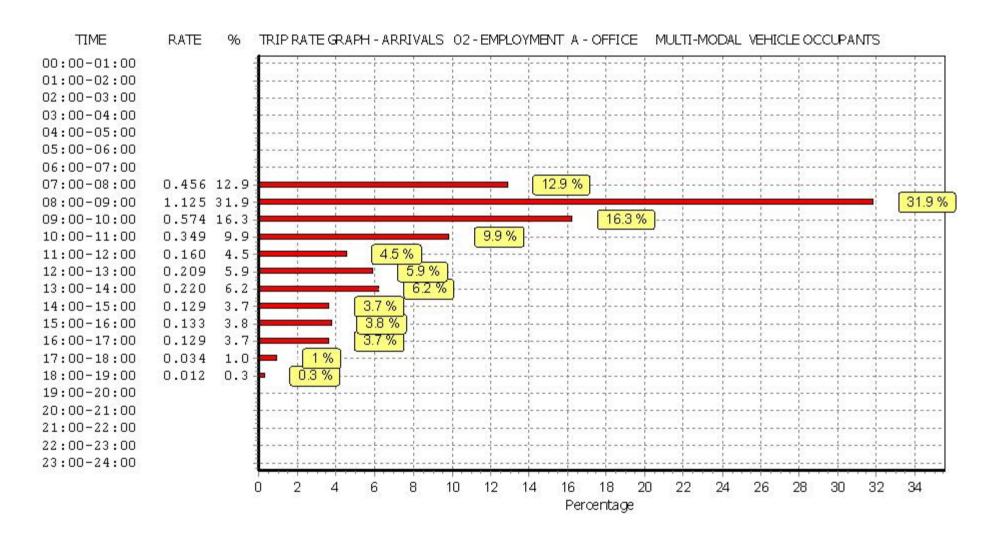
Trip rate parameter range selected: 960 - 9000 (units: sqm) Survey date date range: 01/01/06 - 17/10/13

Number of weekdays (Monday-Friday): 5
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 1

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.

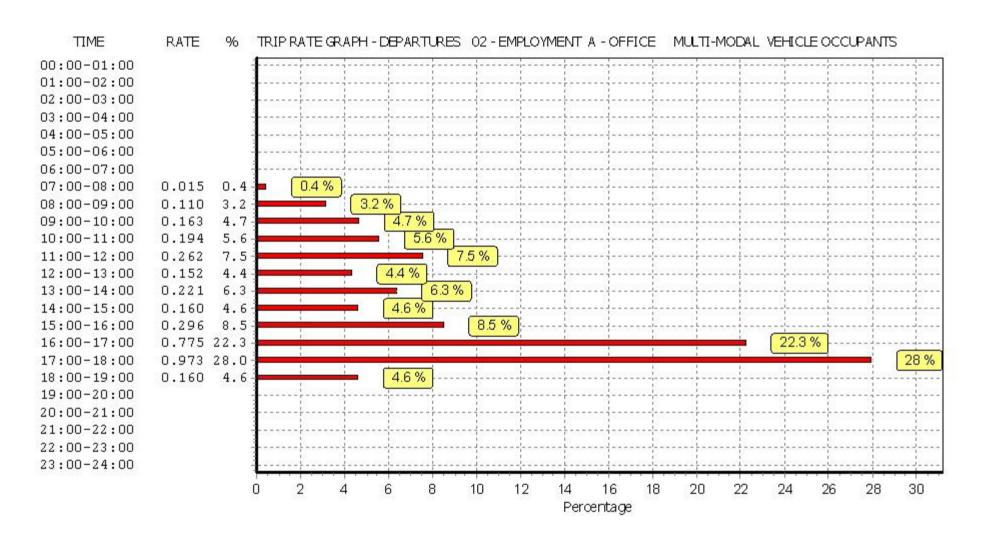
Office

Licence No: 846406

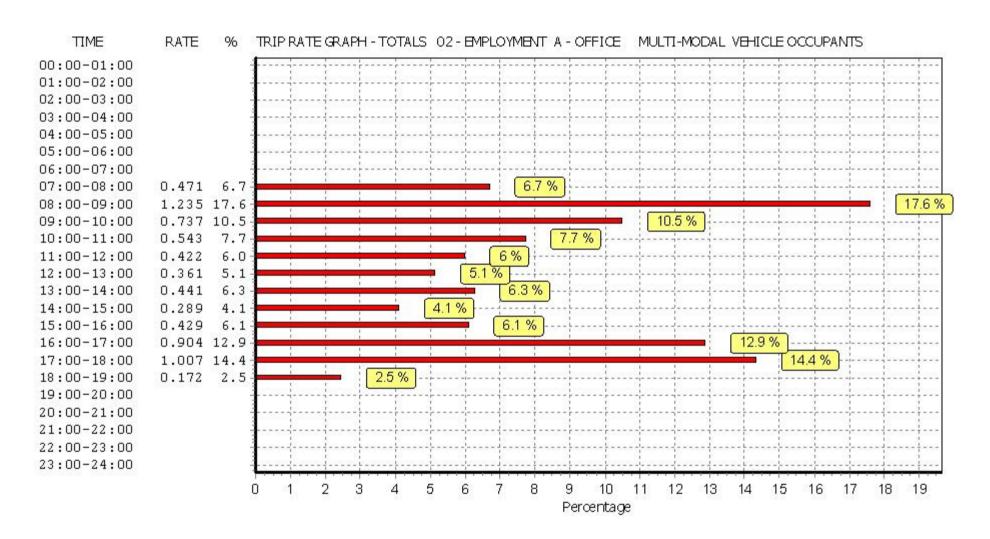


Office

Licence No: 846406



Licence No: 846406



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

MULTI-MODAL PEDESTRIANS Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 00:30	,						,		
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	5	5262	0.027	5	5262	0.011	5	5262	0.038
07:30 - 08:00	5	5262	0.046	5	5262	0.004	5	5262	0.050
08:00 - 08:30	5	5262	0.182	5	5262	0.068	5	5262	0.250
08:30 - 09:00	5	5262	0.186	5	5262	0.072	5	5262	0.258
09:00 - 09:30	5	5262	0.190	5	5262	0.141	5	5262	0.331
09:30 - 10:00	5	5262	0.106	5	5262	0.156	5	5262	0.262
10:00 - 10:30	5	5262	0.167	5	5262	0.194	5	5262	0.361
10:30 - 11:00	5	5262	0.137	5	5262	0.163	5	5262	0.300
11:00 - 11:30	5	5262	0.137	5	5262	0.103	5	5262	0.441
11:30 - 12:00	5	5262	0.224	5	5262	0.217	5	5262	0.441
12:00 - 12:30	5	5262	0.593	5	5262	1.003	5	5262	1.596
12:30 - 13:00	5	5262	0.874	5	5262	1.144	5	5262	2.018
13:00 - 13:30	5	5262	1.448	5	5262	1.121	5	5262	2.569
13:30 - 14:00	5	5262	1.022	5	5262	0.711	5	5262	1.733
14:00 - 14:30	5	5262	0.639	5	5262	0.433	5	5262	1.072
14:30 - 15:00	5	5262	0.034	5	5262	0.433	5	5262	0.479
15:00 - 15:30	5	5262	0.238	5	5262	0.403	5	5262	0.479
15:30 - 16:00	5	5262	0.338	5	5262	0.403	5	5262	0.482
16:00 - 16:30	5	5262	0.238	5	5262	0.224	5	5262	0.482
16:30 - 17:00	5	5262	0.144	5	5262	0.141	5	5262	0.263
17:00 - 17:30	5	5262	0.053	5	5262	0.110	5	5262	0.103
			0.033			0.179			0.232
17:30 - 18:00 18:00 - 18:30	5 5	5262 5262	0.023	<u> </u>	5262 5262	0.038	5 5	5262 5262	0.114
18:30 - 19:00	5	5262	0.011	5	5262	0.038	5	5262	0.049
	3	3202	0.011	5	5262	0.019	5	3202	0.030
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00			7.45.			7.405			44.004
Total Rates:			7.154			7.137			14.291

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

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

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Wednesday 17/12/14 Office Page 35

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

Parameter summary

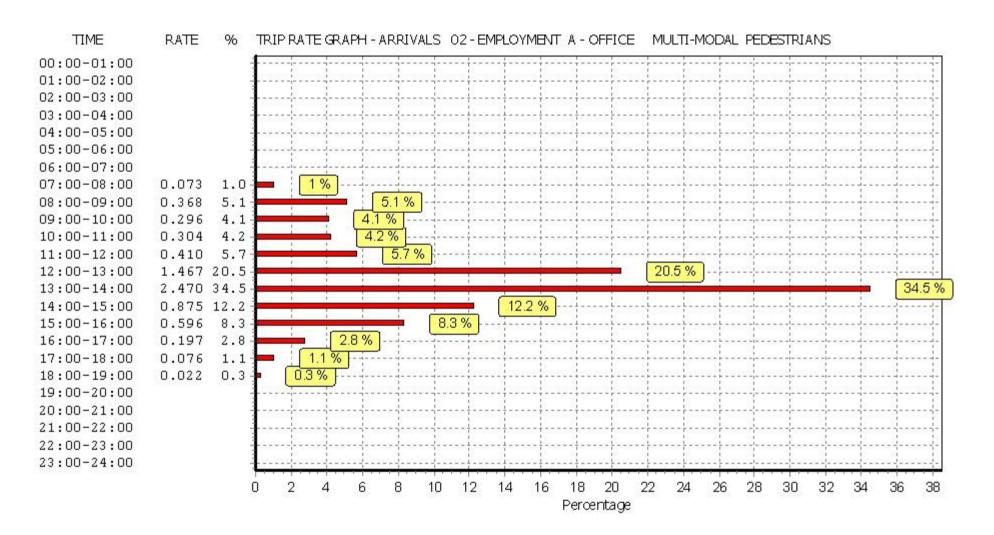
Trip rate parameter range selected: 960 - 9000 (units: sqm) Survey date date range: 01/01/06 - 17/10/13

Number of weekdays (Monday-Friday): 5
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 1

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.

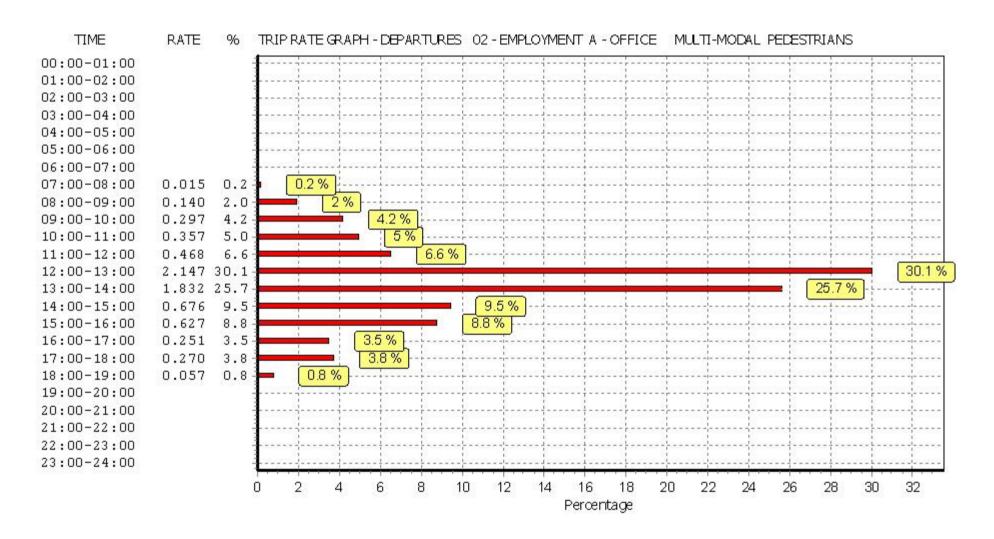
Office

Licence No: 846406



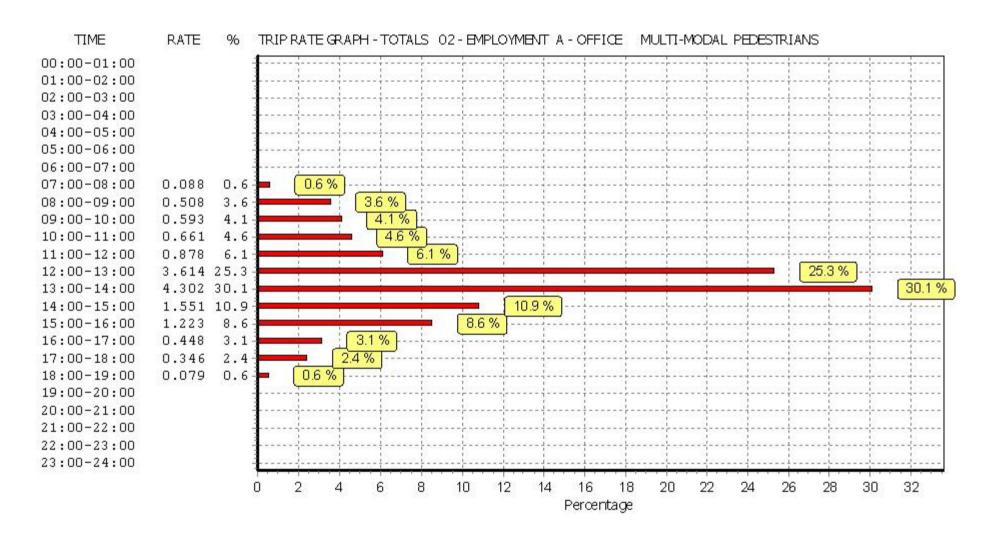
Office

Licence No: 846406



Office

Licence No: 846406



TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE MULTI-MODAL BUS/TRAM PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES	5	TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate	
00:00 - 00:30							•			
00:30 - 01:00										
01:00 - 01:30										
01:30 - 02:00										
02:00 - 02:30										
02:30 - 03:00										
03:00 - 03:30										
03:30 - 04:00										
04:00 - 04:30										
04:30 - 05:00										
05:00 - 05:30										
05:30 - 06:00										
06:00 - 06:30										
06:30 - 07:00										
07:00 - 07:30	5	5262	0.049	5	5262	0.000	5	5262	0.049	
07:30 - 08:00	5	5262	0.220	5	5262	0.004	5	5262	0.224	
08:00 - 08:30	5	5262	0.395	5	5262	0.011	5	5262	0.406	
08:30 - 09:00	5	5262	0.764	5	5262	0.030	5	5262	0.794	
09:00 - 09:30	5	5262	0.289	5	5262	0.019	5	5262	0.308	
09:30 - 10:00	5	5262	0.084	5	5262	0.004	5	5262	0.088	
10:00 - 10:30	5	5262	0.053	5	5262	0.023	5	5262	0.076	
10:30 - 11:00	5	5262	0.038	5	5262	0.030	5	5262	0.068	
11:00 - 11:30	5	5262	0.038	5	5262	0.038	5	5262	0.076	
11:30 - 12:00	5	5262	0.030	5	5262	0.027	5	5262	0.057	
12:00 - 12:30	5	5262	0.034	5	5262	0.061	5	5262	0.095	
12:30 - 13:00	5	5262	0.046	5	5262	0.011	5	5262	0.057	
13:00 - 13:30	5	5262	0.065	5	5262	0.065	5	5262	0.130	
13:30 - 14:00	5	5262	0.015	5	5262	0.015	5	5262	0.030	
14:00 - 14:30	5	5262	0.019	5	5262	0.023	5	5262	0.042	
14:30 - 15:00	5	5262	0.023	5	5262	0.027	5	5262	0.050	
15:00 - 15:30	5	5262	0.015	5	5262	0.057	5	5262	0.072	
15:30 - 16:00	5	5262	0.015	5	5262	0.087	5	5262	0.102	
16:00 - 16:30	5	5262	0.019	5	5262	0.274	5	5262	0.293	
16:30 - 17:00	5	5262	0.004	5	5262	0.258	5	5262	0.262	
17:00 - 17:30	5	5262	0.000	5	5262	0.821	5	5262	0.821	
17:30 - 18:00	5	5262	0.000	5	5262	0.182	5	5262	0.182	
18:00 - 18:30	5	5262	0.000	5	5262	0.057	5	5262	0.057	
18:30 - 19:00	5	5262	0.000	5	5262	0.030	5	5262	0.030	
19:00 - 19:30	-						-			
19:30 - 20:00										
20:00 - 20:30										
20:30 - 21:00										
21:00 - 21:30										
21:30 - 22:00										
22:00 - 22:30										
22:30 - 23:00										
23:00 - 23:30										
23:30 - 24:00										
Total Rates:			2.215			2.154			4.369	
rotar nates.			2.210			2.104			T.007	

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

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

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Wednesday 17/12/14 Office Page 40

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

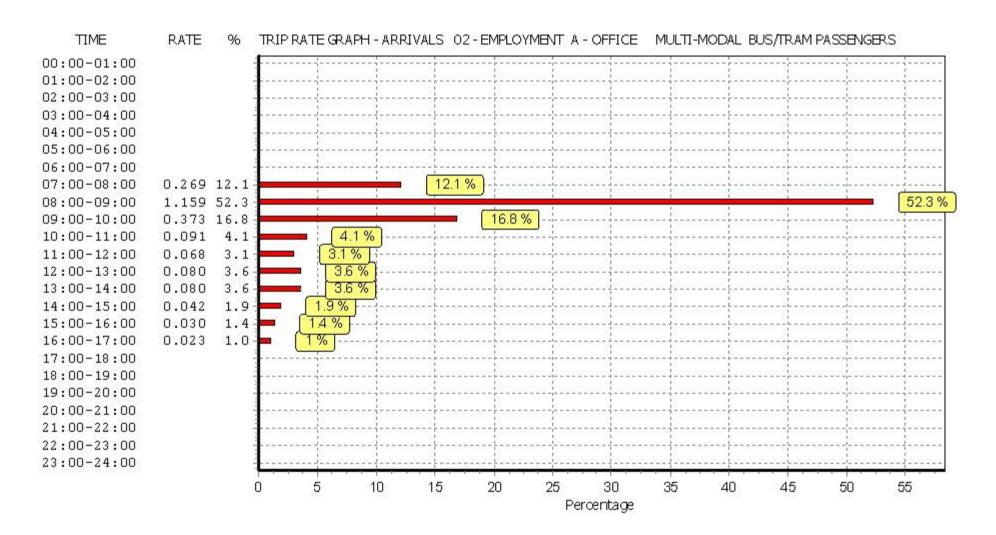
Parameter summary

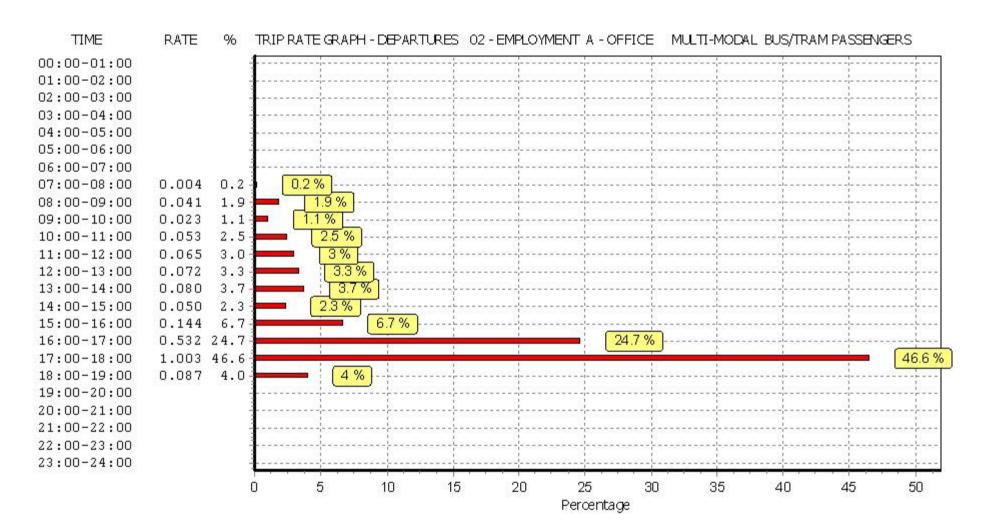
Trip rate parameter range selected: 960 - 9000 (units: sqm) Survey date date range: 01/01/06 - 17/10/13

Number of weekdays (Monday-Friday):5Number of Saturdays:0Number of Sundays:0Surveys manually removed from selection:1

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.

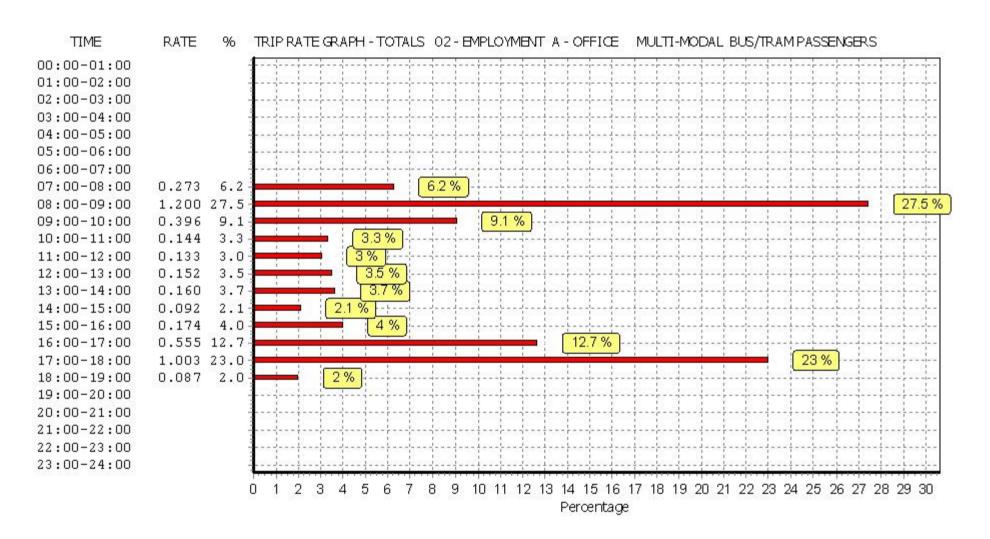
Licence No: 846406





Office

Licence No: 846406



TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE MULTI-MODAL TOTAL RAIL PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 00:30	,			,			,		
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	5	5262	0.053	5	5262	0.000	5	5262	0.053
07:30 - 08:00	5	5262	0.156	5	5262	0.000	5	5262	0.156
08:00 - 08:30	5	5262	0.403	5	5262	0.004	5	5262	0.407
08:30 - 09:00	5	5262	0.544	5	5262	0.000	5	5262	0.544
09:00 - 09:30	5	5262	0.380	5	5262	0.004	5	5262	0.384
09:30 - 10:00	5	5262	0.087	5	5262	0.057	5	5262	0.144
10:00 - 10:30	5	5262	0.042	5	5262	0.008	5	5262	0.050
10:30 - 11:00	5	5262	0.023	5	5262	0.015	5	5262	0.038
11:00 - 11:30	5	5262	0.023	5	5262	0.000	5	5262	0.033
11:30 - 12:00	5	5262	0.023	5	5262	0.008	5	5262	0.023
12:00 - 12:30	5	5262	0.008	5	5262	0.006	5	5262	0.014
12:30 - 13:00	5	5262	0.003	5	5262	0.046	5	5262	0.034
13:00 - 13:30	5	5262	0.023	5	5262	0.013	5	5262	0.038
13:30 - 14:00	5	5262	0.004	5	5262	0.000	5	5262	0.000
14:00 - 14:30	5	5262	0.008	5	5262	0.000	5	5262	0.008
14:30 - 15:00	5	5262	0.008	5	5262	0.000	5	5262	0.008
15:00 - 15:30	5	5262	0.004	5	5262	0.011	5	5262	0.013
15:30 - 16:00	5	5262	0.004	5	5262	0.118	5	5262	0.122
16:00 - 16:30	5	5262	0.000	5	5262	0.190	5	5262	0.190
16:30 - 17:00	5	5262	0.000	5	5262	0.304	5	5262	0.304
17:00 - 17:30	5	5262	0.000	5	5262	0.540	5	5262	0.240
17:30 - 18:00			0.000						0.540
18:00 - 18:30	5 5	5262 5262	0.004	5 5	5262 5262	0.114 0.042	5 5	5262 5262	0.118
18:30 - 19:00	5	5262	0.000	5	5262		5	5262	0.042
	3	5262	0.000	5	5202	0.011	5	5262	0.011
19:00 - 19:30					-				
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00			4			4 = 2.1			6 = 1 =
Total Rates:			1.777			1.791			3.568

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

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

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Wednesday 17/12/14 Office Page 45

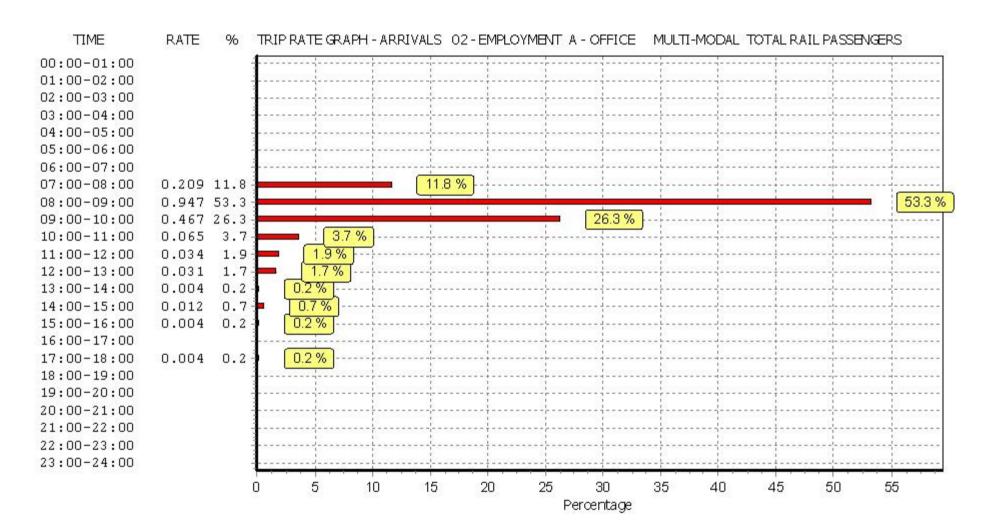
JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

Parameter summary

Trip rate parameter range selected: 960 - 9000 (units: sqm) Survey date date range: 01/01/06 - 17/10/13

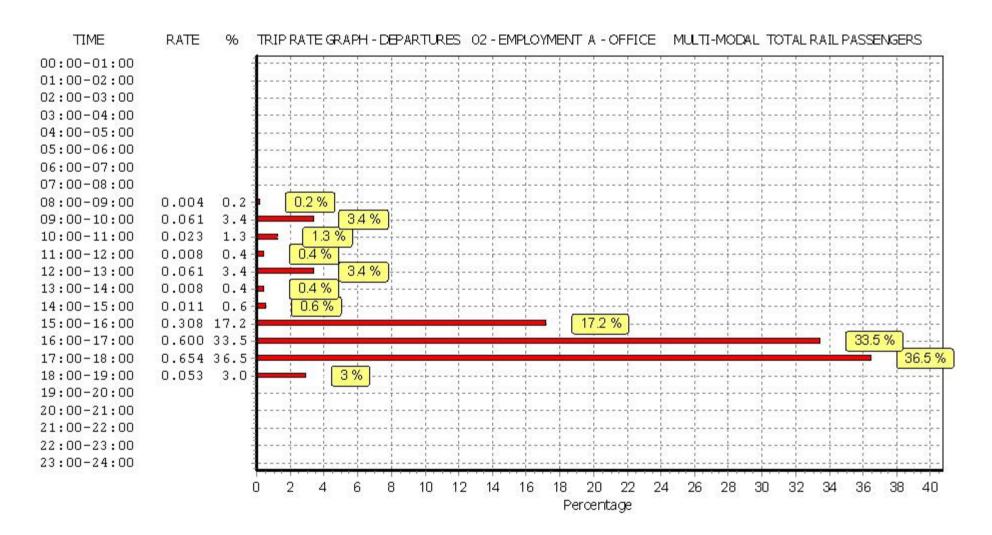
Number of weekdays (Monday-Friday): 5
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 1

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.



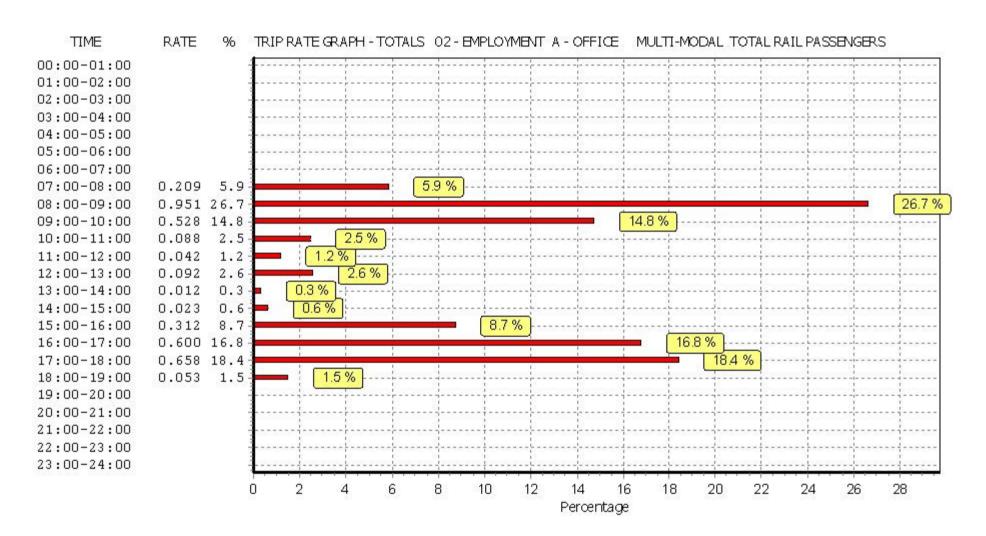
Office

Licence No: 846406



Office

Licence No: 846406



TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE MULTI-MODAL COACH PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS		[DEPARTURES		TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 00:30	-			-					
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	5	5262	0.000	5	5262	0.000	5	5262	0.000
07:30 - 08:00	5	5262	0.000	5	5262	0.000	5	5262	0.000
08:00 - 08:30	5	5262	0.000	5	5262	0.000	5	5262	0.000
08:30 - 09:00	5	5262	0.000	5	5262	0.000	5	5262	0.000
09:00 - 09:30	5	5262	0.000	5	5262	0.000	5	5262	0.000
09:30 - 10:00	5	5262	0.000	5	5262	0.000	5	5262	0.000
10:00 - 10:30	5	5262	0.000	5	5262	0.000	5	5262	0.000
10:30 - 11:00	5	5262	0.000	5	5262	0.000	5	5262	0.000
11:00 - 11:30	5	5262	0.000	5	5262	0.000	5	5262	0.000
11:30 - 12:00	5	5262	0.000	5	5262	0.000	5	5262	0.000
12:00 - 12:30	5	5262	0.000	5	5262	0.000	5	5262	0.000
12:30 - 13:00	5	5262	0.000	5	5262	0.000	5	5262	0.000
13:00 - 13:30	5	5262	0.000	5	5262	0.000	5	5262	0.000
13:30 - 14:00	5	5262	0.000	5	5262	0.000	5	5262	0.000
14:00 - 14:30	5	5262	0.000	5	5262	0.000	5	5262	0.000
14:30 - 15:00	5	5262	0.000	5	5262	0.000	5	5262	0.000
15:00 - 15:30	5	5262	0.000	5	5262	0.000	5	5262	0.000
15:30 - 16:00	5	5262	0.000	5	5262	0.000	5	5262	0.000
16:00 - 16:30	5	5262	0.000	5	5262	0.000	5	5262	0.000
16:30 - 17:00	5	5262	0.000	5	5262	0.000	5	5262	0.000
17:00 - 17:30	5	5262	0.000	5	5262	0.000	5	5262	0.000
17:30 - 18:00	5	5262	0.000	5	5262	0.000	5	5262	0.000
18:00 - 18:30	5	5262	0.000	5	5262	0.000	5	5262	0.000
18:30 - 19:00	5	5262	0.000	5	5262	0.000	5	5262	0.000
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00			0.000			0.000			0.000
Total Rates:			0.000			0.000			0.000

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

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

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Wednesday 17/12/14 Office Page 50

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

Parameter summary

Trip rate parameter range selected: 960 - 9000 (units: sqm) Survey date date range: 01/01/06 - 17/10/13

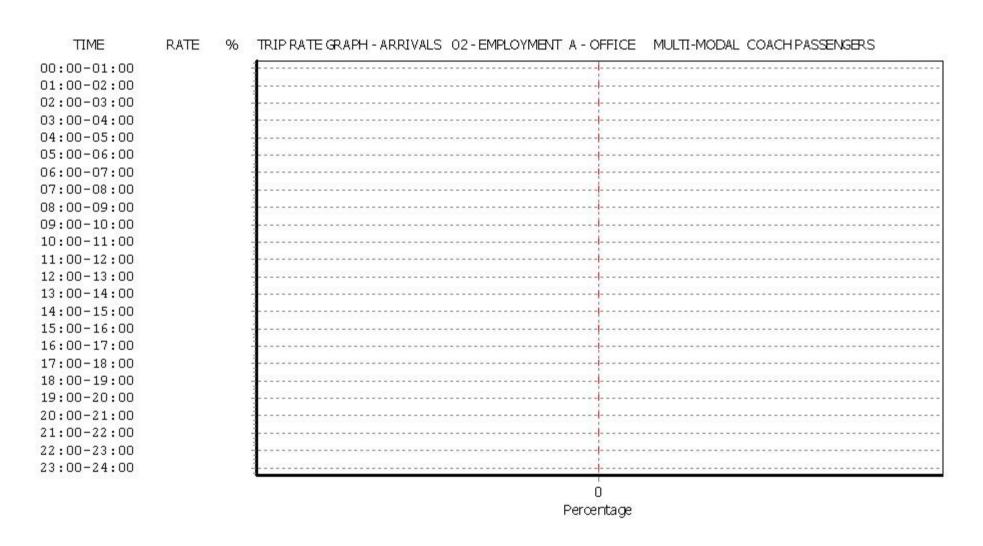
Number of weekdays (Monday-Friday): 5
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 1

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.

Office

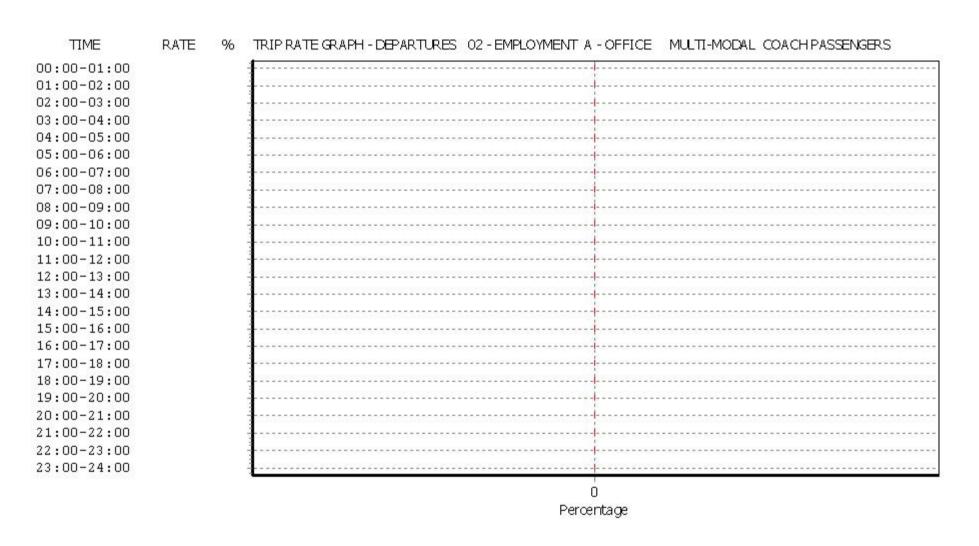
JMP Consultants Ltd. Bothwell Street Glasgow

Licence No: 846406



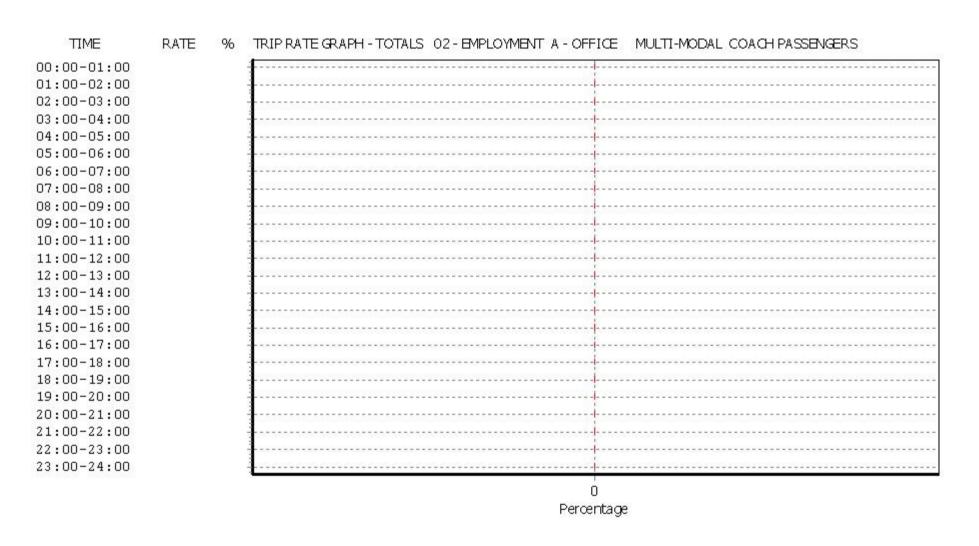
Office

Licence No: 846406



Office

Licence No: 846406



TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range 00:00 - 00:30 00:30 - 01:00	No. Days	ARRIVALS Ave.	Trip		DEPARTURES			TOTALS	
00:00 - 00:30 00:30 - 01:00			HID	No.	Ave.	Trip	No.	Ave.	Trip
00:00 - 00:30 00:30 - 01:00		GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:30 - 01:00				,			,		
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	5	5262	0.103	5	5262	0.000	5	5262	0.103
07:30 - 08:00	5	5262	0.376	5	5262	0.004	5	5262	0.380
08:00 - 08:30	5	5262	0.798	5	5262	0.015	5	5262	0.813
08:30 - 09:00	5	5262	1.307	5	5262	0.030	5	5262	1.337
09:00 - 09:30	5	5262	0.669	5	5262	0.023	5	5262	0.692
09:30 - 10:00	5	5262	0.171	5	5262	0.061	5	5262	0.232
10:00 - 10:30	5	5262	0.095	5	5262	0.030	5	5262	0.125
10:30 - 11:00	5	5262	0.061	5	5262	0.046	5	5262	0.107
11:00 - 11:30	5	5262	0.061	5	5262	0.038	5	5262	0.099
11:30 - 12:00	5	5262	0.042	5	5262	0.034	5	5262	0.076
12:00 - 12:30	5	5262	0.042	5	5262	0.106	5	5262	0.148
12:30 - 13:00	5	5262	0.068	5	5262	0.027	5	5262	0.095
13:00 - 13:30	5	5262	0.068	5	5262	0.072	5	5262	0.140
13:30 - 14:00	5	5262	0.015	5	5262	0.015	5	5262	0.030
14:00 - 14:30	5	5262	0.027	5	5262	0.023	5	5262	0.050
14:30 - 15:00	5	5262	0.027	5	5262	0.038	5	5262	0.065
15:00 - 15:30	5	5262	0.019	5	5262	0.175	5	5262	0.194
15:30 - 16:00	5	5262	0.015	5	5262	0.277	5	5262	0.292
16:00 - 16:30	5	5262	0.019	5	5262	0.578	5	5262	0.597
16:30 - 17:00	5	5262	0.004	5	5262	0.555	5	5262	0.559
17:00 - 17:30	5	5262	0.000	5	5262	1.361	5	5262	1.361
17:30 - 18:00	5	5262	0.004	5	5262	0.296	5	5262	0.300
18:00 - 18:30	5	5262	0.000	5	5262	0.099	5	5262	0.099
18:30 - 19:00	5	5262	0.000	5	5262	0.042	5	5262	0.042
19:00 - 19:30		0202	0.000		0202	0.0.2	0	0202	0.0.12
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			3.991			3.945			7.936

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

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

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Wednesday 17/12/14 Office Page 55

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

Parameter summary

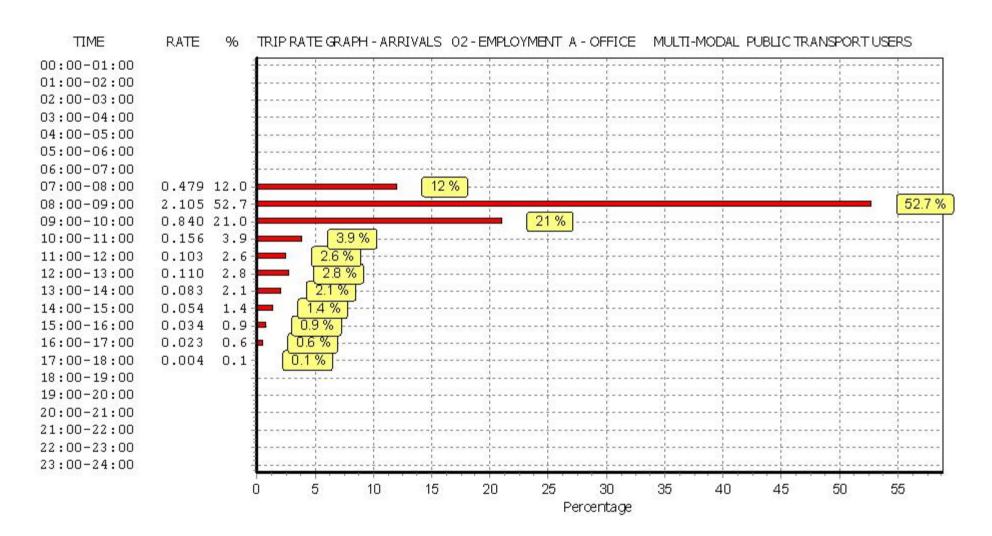
Trip rate parameter range selected: 960 - 9000 (units: sqm) Survey date date range: 01/01/06 - 17/10/13

Number of weekdays (Monday-Friday): 5
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 1

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.

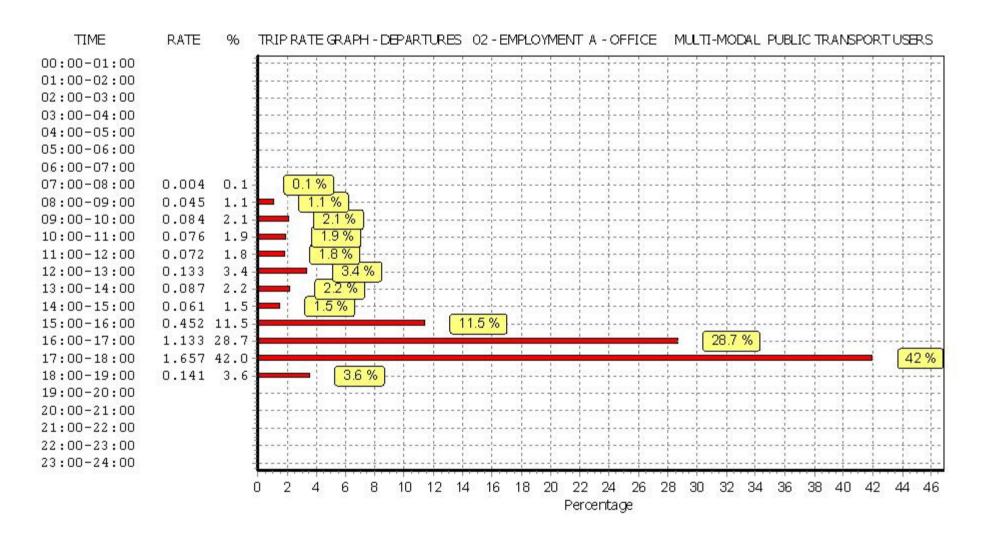
Office

Licence No: 846406



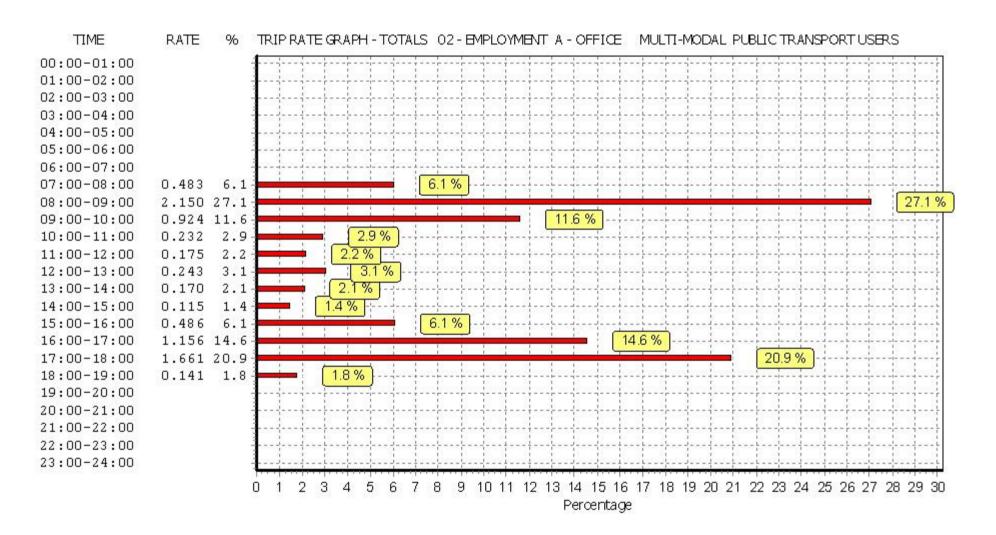
Office

Licence No: 846406



Office

Licence No: 846406



Office Page 59

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

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

MULTI-MODAL TOTAL PEOPLE Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 00:30	,			,			,		
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	5	5262	0.293	5	5262	0.023	5	5262	0.316
07:30 - 08:00	5	5262	0.718	5	5262	0.011	5	5262	0.729
08:00 - 08:30	5	5262	1.555	5	5262	0.133	5	5262	1.688
08:30 - 09:00	5	5262	2.056	5	5262	0.163	5	5262	2.219
09:00 - 09:30	5	5262	1.171	5	5262	0.236	5	5262	1.407
09:30 - 10:00	5	5262	0.547	5	5262	0.308	5	5262	0.855
10:00 - 10:30	5	5262	0.460	5	5262	0.308	5	5262	0.768
10:30 - 11:00	5	5262	0.400	5	5262	0.338	5	5262	0.700
11:00 - 11:30	5	5262	0.372	5	5262	0.407	5	5262	0.710
11:30 - 12:00	5	5262	0.372	5	5262	0.407	5	5262	0.719
12:00 - 12:30	5	5262	0.749	5	5262	1.201	5	5262	1.950
12:30 - 12:30	5	5262	1.045	5	5262	1.239	5	5262	2.284
13:00 - 13:30	5	5262	1.653	5	5262	1.239	5	5262	2.284
	5	5262	1.125	5	5262		5	5262	1.980
13:30 - 14:00 14:00 - 14:30				5		0.855	5		
	5	5262	0.726		5262	0.513		5262	1.239
14:30 - 15:00	5	5262	0.331	5	5262	0.384	5	5262	0.715
15:00 - 15:30	5	5262	0.452	5	5262	0.688	5	5262	1.140
15:30 - 16:00	5	5262	0.319	5	5262	0.692	5	5262	1.011
16:00 - 16:30	5	5262	0.258	5	5262	1.220	5	5262	1.478
16:30 - 17:00	5	5262	0.095	5	5262	0.950	5	5262	1.045
17:00 - 17:30	5	5262	0.087	5	5262	2.269	5	5262	2.356
17:30 - 18:00	5	5262	0.027	5	5262	0.650	5	5262	0.677
18:00 - 18:30	5	5262	0.019	5	5262	0.236	5	5262	0.255
18:30 - 19:00	5	5262	0.015	5	5262	0.122	5	5262	0.137
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			14.757			14.645			29.402

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

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

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Wednesday 17/12/14 Office Page 60

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

Parameter summary

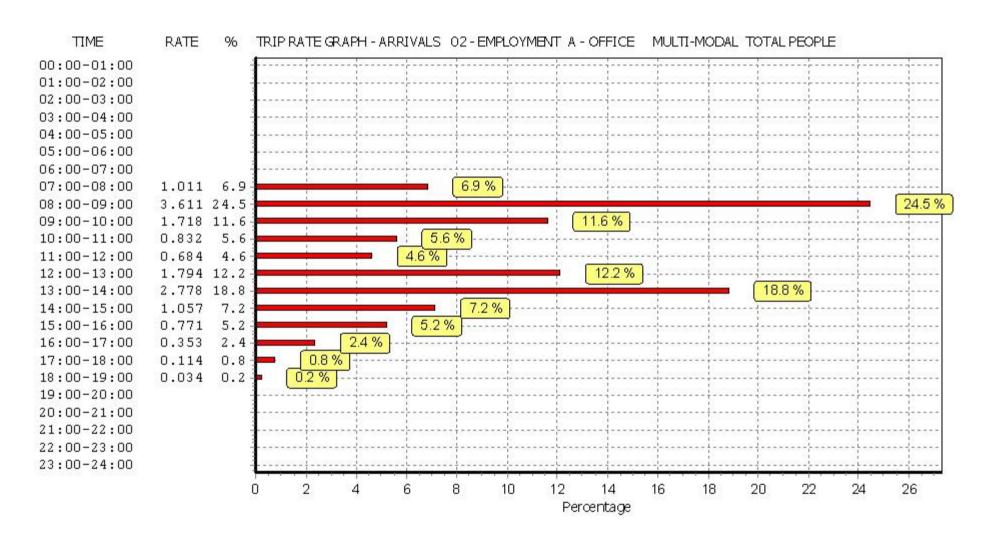
Trip rate parameter range selected: 960 - 9000 (units: sqm) Survey date date range: 01/01/06 - 17/10/13

Number of weekdays (Monday-Friday): 5
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 1

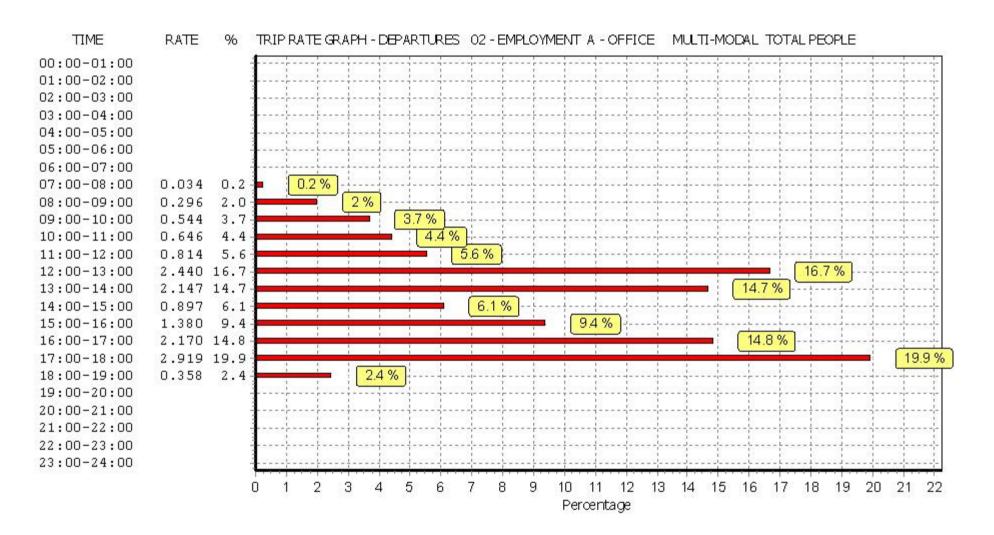
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected 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.

Office

Licence No: 846406

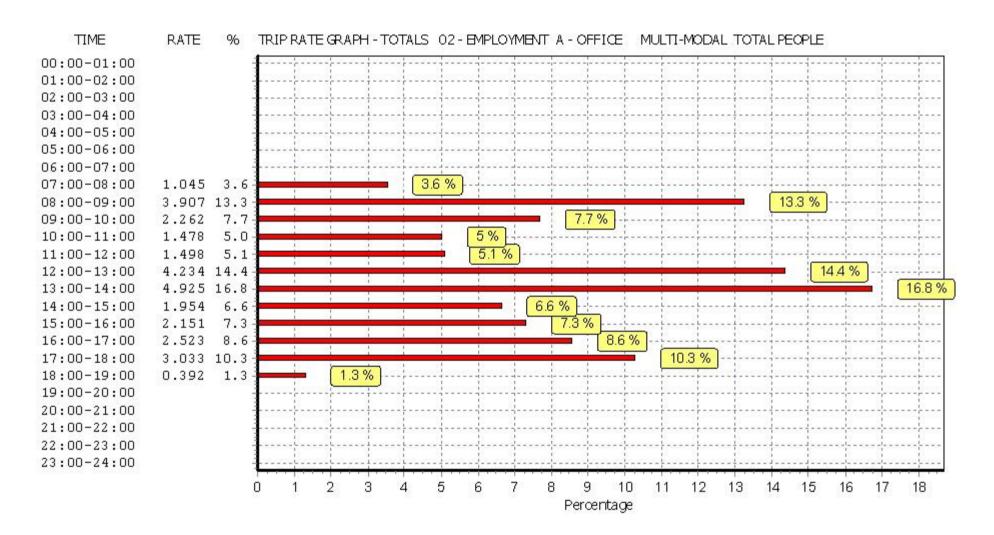


Licence No: 846406



Office

Licence No: 846406



TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Friday 19/12/14 Industrial Unit Page 1

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : C - INDUSTRIAL UNIT
MULTI-MODAL VEHICLES

Selected regions and areas:

05 EAST MIDLANDS

DS DERBYSHIRE 1 days

06 WEST MIDLANDS

HE HEREFORDSHIRE 1 days WM WEST MIDLANDS 1 days

08 NORTH WEST

CH CHESHIRE 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: Gross floor area

Actual Range: 1880 to 23500 (units: sqm)
Range Selected by User: 1880 to 43325 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/06 to 22/10/13

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 2 days

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

Selected survey types:

Manual count 4 days
Directional ATC Count 0 days

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

Selected Locations:

Edge of Town

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.

4

Selected Location Sub Categories:

Industrial Zone2Commercial Zone1No Sub Category1

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.

TRICS 7.1.3 091214 B17.00	(C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium	Friday 19/12/14
Industrial Unit		Page 2

Filtering Stage 3 selection:

Use Class:

B1 1 days B2 2 days

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

Population within 1 mile:

 1,001 to 5,000
 1 days

 10,001 to 15,000
 2 days

 15,001 to 20,000
 1 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 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 1 days 1.1 to 1.5 3 days

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

Travel Plan:

No 4 days

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

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Friday 19/12/14 Industrial Unit Page 3

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

LIST OF SITES relevant to selection parameters

1 CH-02-C-01 BAKERY CHESHIRE

GADBROOK PARK HIGH SHURLACH NORTHWICH Edge of Town Industrial Zone

Total Gross floor area: 15000 sgm

Survey date: THURSDAY 21/06/07 Survey Type: MANUAL

2 DS-02-C-01 BAKERY DERBYSHIRE

STUBLEY LANE DRONFIELD NEAR SHEFFIELD Edge of Town No Sub Category

Total Gross floor area: 23500 sqm

Survey date: THURSDAY 22/06/06 Survey Type: MANUAL HE-02-C-02 THERMAL PROCESSING HEREFORDSHIRE

COLLEGE ROAD BURCOTT HEREFORD Edge of Town Commercial Zone

3

Total Gross floor area: 1880 sqm

Survey date: TUESDAY 22/10/13 Survey Type: MANUAL 4 WM-02-C-03 INDUSTRIAL GLASS WEST MIDLANDS

DOWNING STREET

SMETHWICK Edge of Town Industrial Zone

Total Gross floor area: 5070 sqm

Survey date: TUESDAY 06/11/12 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.

Licence No: 846406

JMP Consultants Ltd. Bothwell Street Glasgow

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

MULTI-MODAL VEHICLES
Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS			EPARTURES		TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 00:30	-								
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	4	11363	0.059	4	11363	0.117	4	11363	0.176
07:30 - 08:00	4	11363	0.103	4	11363	0.029	4	11363	0.132
08:00 - 08:30	4	11363	0.125	4	11363	0.037	4	11363	0.162
08:30 - 09:00	4	11363	0.106	4	11363	0.044	4	11363	0.150
09:00 - 09:30	4	11363	0.105	4	11363	0.048	4	11363	0.133
09:30 - 10:00	4	11363	0.066	4	11363	0.040	4	11363	0.175
10:00 - 10:30	4	11363	0.057	4	11363	0.046	4	11363	0.100
10:30 - 11:00	4	11363	0.057	4	11363	0.037	4	11363	0.090
11:00 - 11:30	4	11363	0.033	4	11363	0.037	4	11363	0.083
11:30 - 12:00	4	11363	0.053	4	11363	0.053	4	11363	0.106
12:00 - 12:30	4	11363	0.033	4	11363	0.033	4	11363	0.100
12:30 - 13:00	4	11363	0.042	4	11363	0.048	4	11363	0.110
13:00 - 13:30	4	11363	0.106	4	11363	0.040	4	11363	0.110
13:30 - 14:00	4	11363	0.141	4	11363	0.073	4	11363	0.214
14:00 - 14:30	4	11363	0.123	4	11363	0.246	4	11363	0.369
14:30 - 15:00	4	11363	0.123	4	11363	0.240	4	11363	0.304
15:00 - 15:30	4	11363	0.000	4	11363	0.106	4	11363	0.170
15:30 - 16:00	4	11363	0.084	4	11363	0.189	4	11363	0.223
16:00 - 16:30	4	11363	0.035	4	11363	0.070	4	11363	0.105
16:30 - 17:00	4	11363	0.053	4	11363	0.070	4	11363	0.103
17:00 - 17:30	4	11363	0.033	4	11363	0.107	4	11363	0.220
17:30 - 17:30	4	11363	0.018	4	11363	0.114	4	11363	0.132
18:00 - 18:30	4	11363	0.018	4	11363	0.061	4	11363	0.099
18:30 - 19:00	4	11363	0.051	4	11363	0.077	4	11363	0.128
19:00 - 19:30	4	11303	0.000	4	11303	0.006	4	11303	0.134
19:30 - 20:00 20:00 - 20:30				+		+		+	
20:00 - 20:30				+		+		+	
21:00 - 21:30								+	
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00			1.017			0.000			0.007
Total Rates:			1.817			2.009			3.826

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

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

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Friday 19/12/14 Industrial Unit Page 5

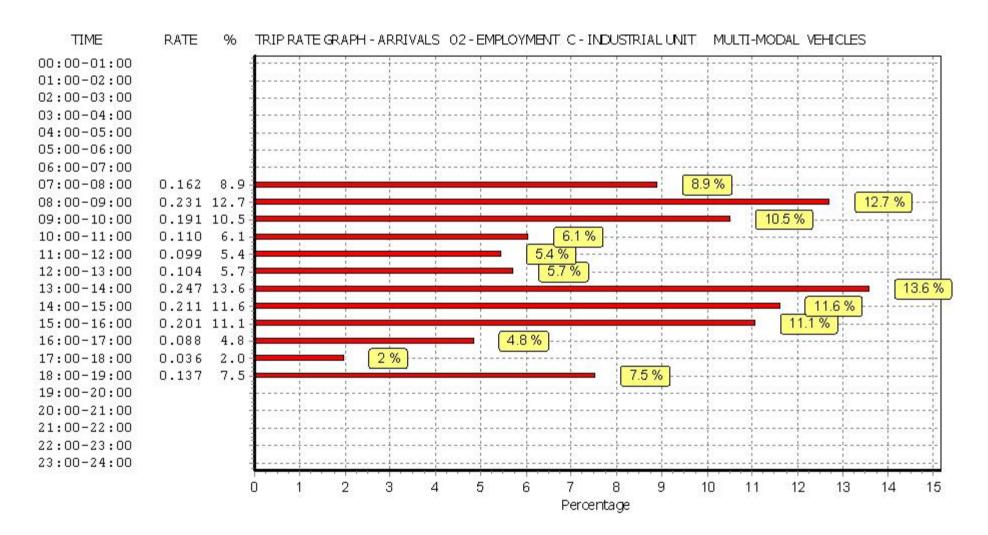
JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

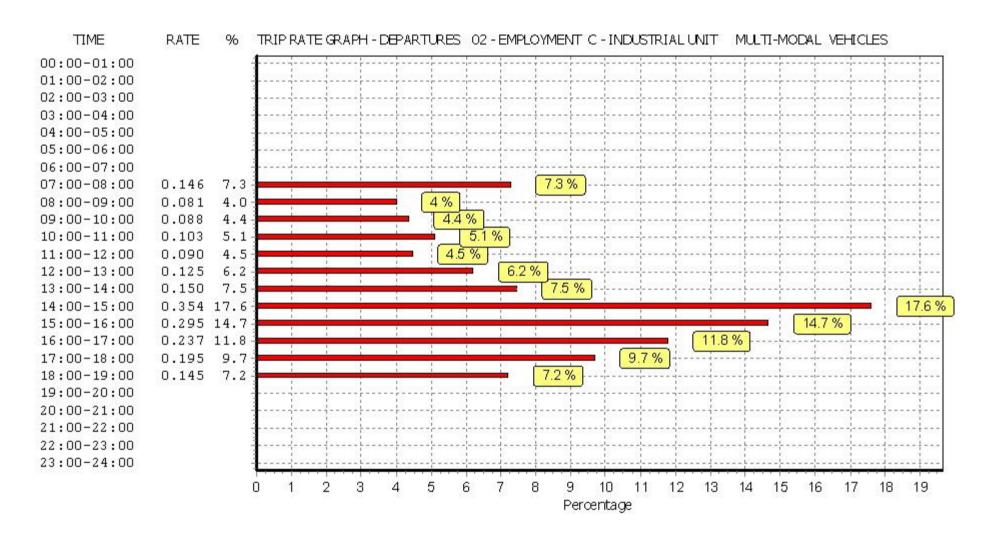
Parameter summary

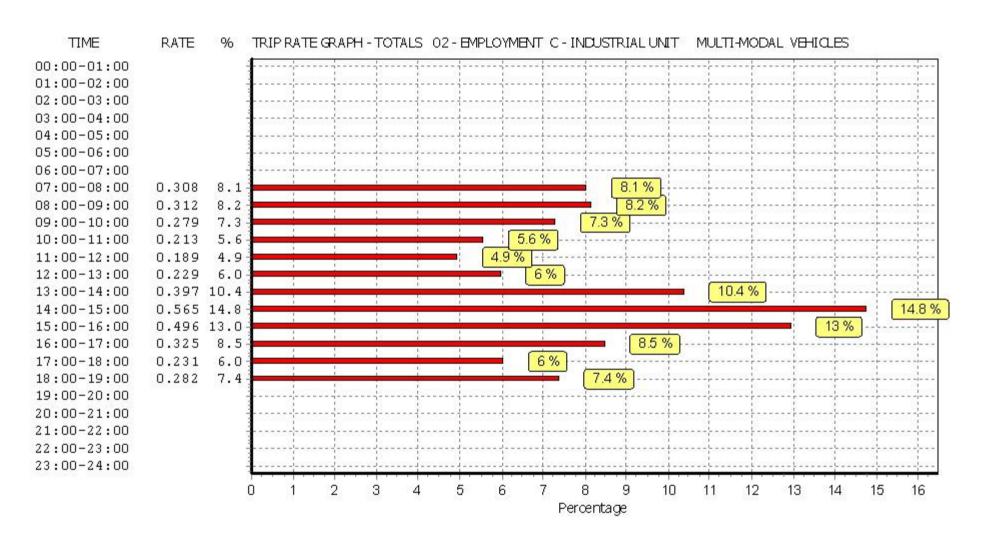
Trip rate parameter range selected: 1880 - 23500 (units: sqm) Survey date date range: 01/01/06 - 22/10/13

Number of weekdays (Monday-Friday):4Number of Saturdays:0Number of Sundays:0Surveys manually removed from selection:1

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.







Licence No: 846406

JMP Consultants Ltd. Bothwell Street Glasgow

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

MULTI-MODAL TAXIS
Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS				DEPARTURES		TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate	
00:00 - 00:30	. .			. ,			.,.			
00:30 - 01:00										
01:00 - 01:30										
01:30 - 02:00										
02:00 - 02:30										
02:30 - 03:00										
03:00 - 03:30										
03:30 - 04:00										
04:00 - 04:30										
04:30 - 05:00										
05:00 - 05:30										
05:30 - 06:00										
06:00 - 06:30										
06:30 - 07:00										
07:00 - 07:30	4	11363	0.000	4	11363	0.000	4	11363	0.000	
07:30 - 08:00	4	11363	0.000	4	11363	0.000	4	11363	0.000	
08:00 - 08:30	4	11363	0.000	4	11363	0.000	4	11363	0.000	
08:30 - 09:00	4	11363	0.000	4	11363	0.000	4	11363	0.000	
09:00 - 09:30	4	11363	0.000	4	11363	0.000	4	11363	0.000	
09:30 - 10:00		11363	0.000	4	11363	0.000	4	11363	0.000	
10:00 - 10:30	4	11363	0.000	4	11363	0.000	4 4	11363	0.000	
10:30 - 11:00	4	11363	0.000	4	11363	0.000		11363	0.000	
	4	11363	0.000		11363	0.000	4	11363		
11:00 - 11:30 11:30 - 12:00	4		0.000	4			4		0.000	
12:00 - 12:30	4	11363		4	11363	0.000	4	11363	0.000	
	4	11363	0.000	4	11363	0.000	4	11363	0.000	
12:30 - 13:00	4	11363	0.000	4	11363	0.000	4	11363	0.000	
13:00 - 13:30	4	11363	0.000	4	11363	0.000	4	11363	0.000	
13:30 - 14:00	4	11363	0.000	4	11363	0.000	4	11363	0.000	
14:00 - 14:30	4	11363	0.002	4	11363	0.002	4	11363	0.004	
14:30 - 15:00	4	11363	0.000	4	11363	0.000	4	11363	0.000	
15:00 - 15:30	4	11363	0.002	4	11363	0.002	4	11363	0.004	
15:30 - 16:00	4	11363	0.000	4	11363	0.000	4	11363	0.000	
16:00 - 16:30	4	11363	0.000	4	11363	0.000	4	11363	0.000	
16:30 - 17:00	4	11363	0.000	4	11363	0.000	4	11363	0.000	
17:00 - 17:30	4	11363	0.000	4	11363	0.000	4	11363	0.000	
17:30 - 18:00	4	11363	0.000	4	11363	0.000	4	11363	0.000	
18:00 - 18:30	4	11363	0.000	4	11363	0.000	4	11363	0.000	
18:30 - 19:00	4	11363	0.000	4	11363	0.000	4	11363	0.000	
19:00 - 19:30										
19:30 - 20:00										
20:00 - 20:30										
20:30 - 21:00										
21:00 - 21:30										
21:30 - 22:00										
22:00 - 22:30										
22:30 - 23:00										
23:00 - 23:30										
23:30 - 24:00										
Total Rates:			0.004			0.004			0.008	

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

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

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Friday 19/12/14 Industrial Unit Page 10

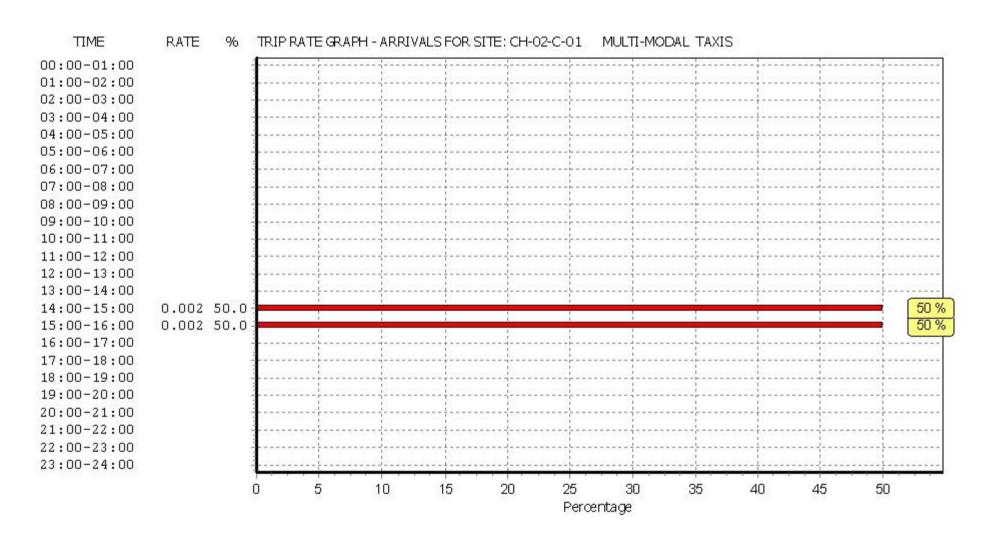
JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

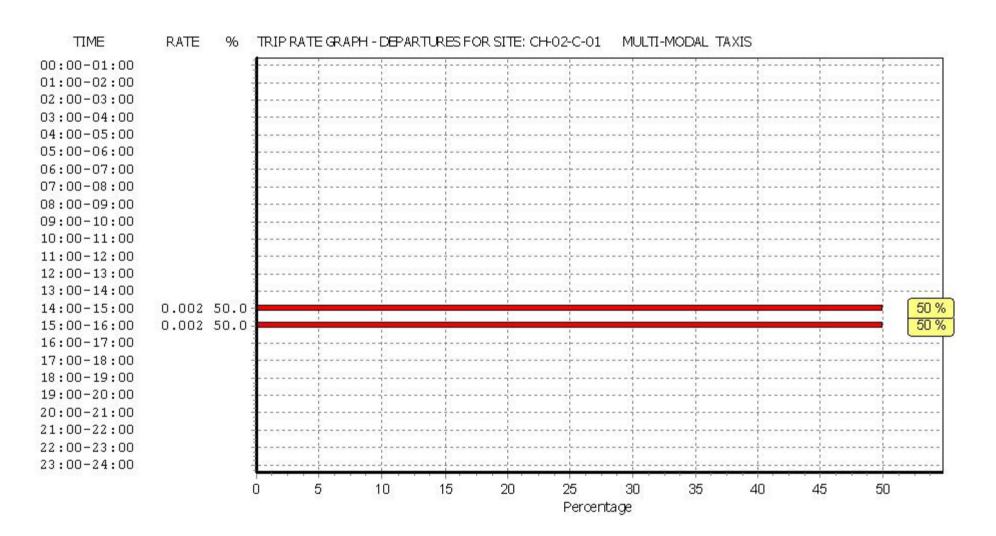
Parameter summary

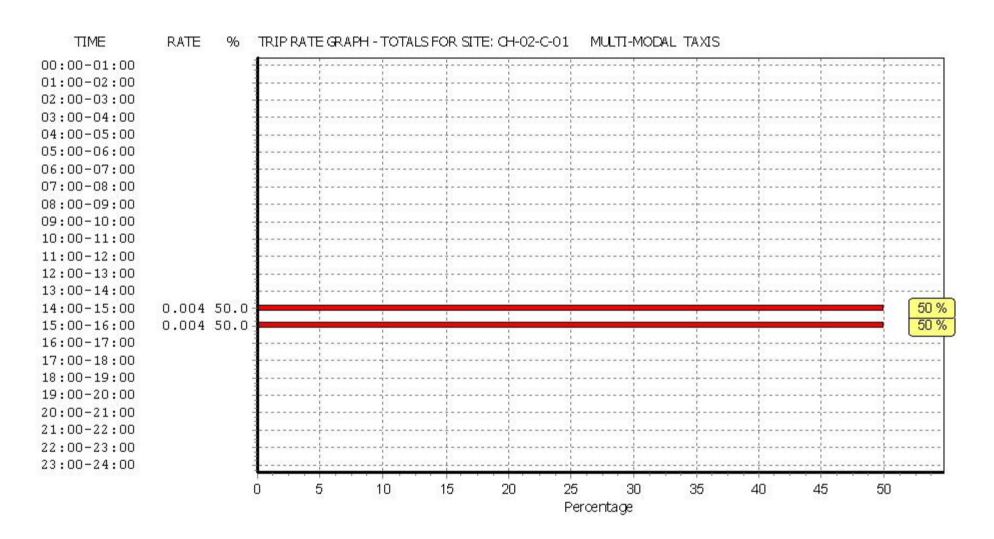
Trip rate parameter range selected: 1880 - 23500 (units: sqm) Survey date date range: 01/01/06 - 22/10/13

Number of weekdays (Monday-Friday):4Number of Saturdays:0Number of Sundays:0Surveys manually removed from selection:1

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.







Licence No: 846406

JMP Consultants Ltd. Bothwell Street Glasgow

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

MULTI-MODAL OGVS Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			[DEPARTURES		TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate	
00:00 - 00:30	,			3			,			
00:30 - 01:00										
01:00 - 01:30										
01:30 - 02:00										
02:00 - 02:30										
02:30 - 03:00										
03:00 - 03:30										
03:30 - 04:00										
04:00 - 04:30										
04:30 - 05:00										
05:00 - 05:30										
05:30 - 06:00										
06:00 - 06:30										
06:30 - 07:00										
07:00 - 07:30	4	11363	0.007	4	11363	0.011	4	11363	0.018	
07:30 - 08:00	4	11363	0.007	4	11363	0.011	4	11363	0.013	
08:00 - 08:30	4	11363	0.022	4	11363	0.015	4	11363	0.013	
08:30 - 09:00	4	11363	0.022	4	11363	0.020	4	11363	0.037	
09:00 - 09:30	4	11363	0.016	4	11363	0.020	4	11363	0.037	
09:30 - 10:00	4	11363	0.020	4	11363	0.007	4	11363	0.037	
10:00 - 10:30	4	11363	0.031	4	11363	0.007	4	11363	0.036	
10:30 - 11:00	4	11363	0.013	4	11363	0.013	4	11363	0.020	
11:00 - 11:30	4	11363	0.022	4	11363	0.004	4	11363	0.033	
11:30 - 12:00	4	11363	0.018	4	11363	0.004	4	11363	0.022	
12:00 - 12:30	4	11363	0.020	4	11363	0.013	4	11363	0.039	
12:30 - 13:00	4	11363	0.011	4	11363	0.013	4	11363	0.020	
13:00 - 13:30	4	11363	0.018	4	11363	0.002	4	11363	0.020	
13:30 - 14:00	4	11363	0.007	4	11363	0.013	4	11363	0.014	
14:00 - 14:30	4	11363	0.007	4	11363	0.007	4	11363	0.014	
14:30 - 15:00	4	11363	0.024	4	11363	0.011	4	11363	0.033	
15:00 - 15:30	4	11363	0.013	4	11363	0.007	4	11363	0.022	
15:30 - 16:00	4	11363	0.007	4	11363	0.013	4	11363	0.020	
16:00 - 16:30	4	11363	0.013	4	11363	0.004	4	11363	0.006	
16:30 - 17:00	4	11363	0.002	4	11363	0.004	4	11363	0.000	
			0.018		11363					
17:00 - 17:30 17:30 - 18:00	4	11363 11363	0.007	4	11363	0.004	4 4	11363 11363	0.011	
18:00 - 18:30	4	11363	0.004	4	11363	0.009	4	11363	0.013	
18:30 - 19:00	4	11363	0.015	4	11363	0.015	4	11363	0.030	
19:00 - 19:30	4	11303	0.007	4	11303	0.007	4	11303	0.014	
19:00 - 19:30										
20:00 - 20:30										
20:30 - 20:30										
21:00 - 21:30										
21:30 - 22:00										
22:00 - 22:30										
22:30 - 23:00										
23:00 - 23:30 23:30 - 24:00										
			0.240			0.242			0 (11	
Total Rates:			0.368			0.243			0.611	

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

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

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Friday 19/12/14 Industrial Unit Page 15

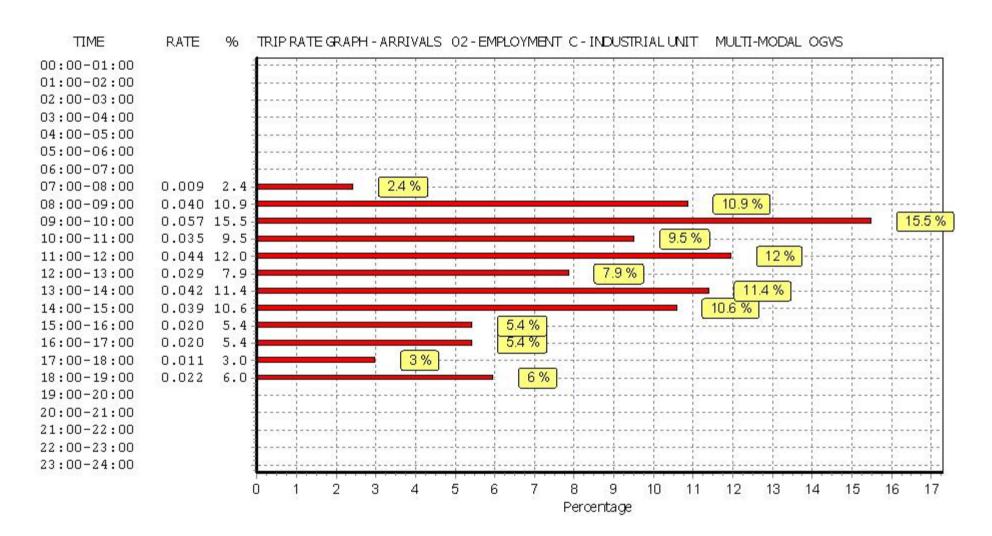
JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

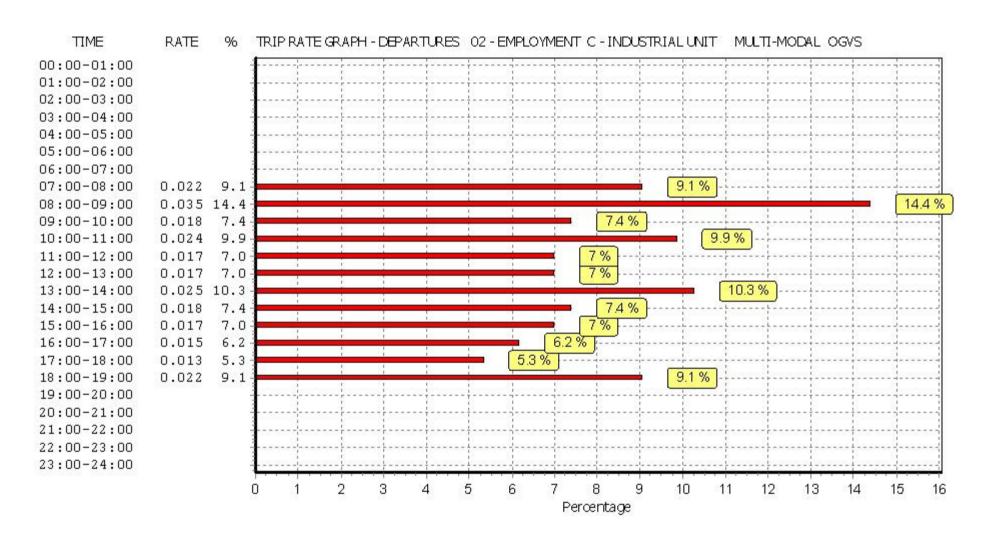
Parameter summary

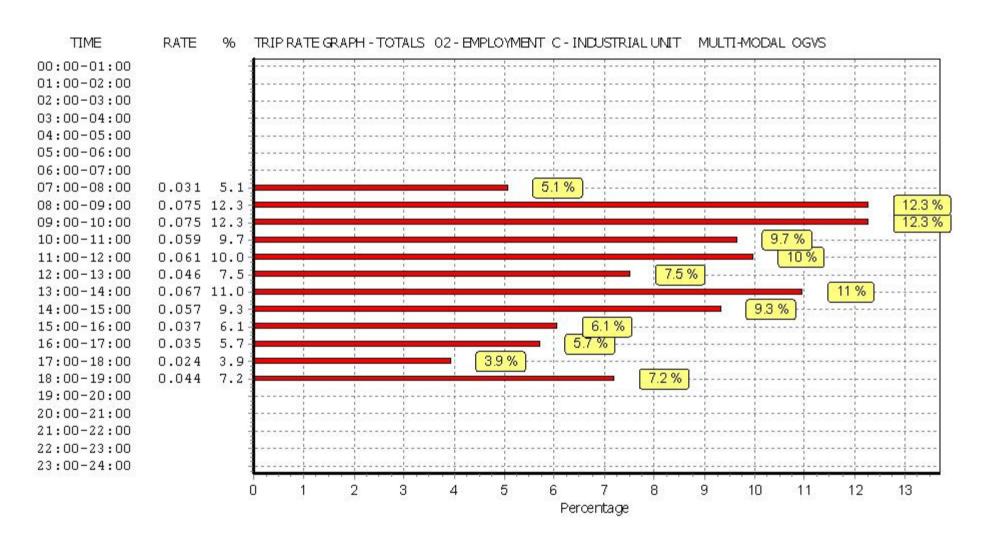
Trip rate parameter range selected: 1880 - 23500 (units: sqm) Survey date date range: 01/01/06 - 22/10/13

Number of weekdays (Monday-Friday):4Number of Saturdays:0Number of Sundays:0Surveys manually removed from selection:1

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.







Licence No: 846406

JMP Consultants Ltd. Bothwell Street Glasgow

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

MULTI-MODAL PSVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			[DEPARTURES		TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate	
00:00 - 00:30				•						
00:30 - 01:00										
01:00 - 01:30										
01:30 - 02:00										
02:00 - 02:30										
02:30 - 03:00										
03:00 - 03:30										
03:30 - 04:00										
04:00 - 04:30										
04:30 - 05:00										
05:00 - 05:30										
05:30 - 06:00										
06:00 - 06:30										
06:30 - 07:00										
07:00 - 07:30	4	11363	0.000	4	11363	0.000	4	11363	0.000	
07:30 - 08:00	4	11363	0.000	4	11363	0.000	4	11363	0.000	
08:00 - 08:30	4	11363	0.000	4	11363	0.000	4	11363	0.000	
08:30 - 09:00			0.000			0.000			0.000	
	4	11363		4	11363		4	11363		
09:00 - 09:30	4	11363	0.000	4	11363	0.000	4	11363	0.000	
09:30 - 10:00	4	11363	0.000	4	11363	0.000	4	11363	0.000	
10:00 - 10:30	4	11363	0.000	4	11363	0.000	4	11363	0.000	
10:30 - 11:00	4	11363	0.000	4	11363	0.000	4	11363	0.000	
11:00 - 11:30	4	11363	0.000	4	11363	0.000	4	11363	0.000	
11:30 - 12:00	4	11363	0.000	4	11363	0.000	4	11363	0.000	
12:00 - 12:30	4	11363	0.002	4	11363	0.000	4	11363	0.002	
12:30 - 13:00	4	11363	0.000	4	11363	0.000	4	11363	0.000	
13:00 - 13:30	4	11363	0.000	4	11363	0.000	4	11363	0.000	
13:30 - 14:00	4	11363	0.000	4	11363	0.000	4	11363	0.000	
14:00 - 14:30	4	11363	0.002	4	11363	0.000	4	11363	0.002	
14:30 - 15:00	4	11363	0.000	4	11363	0.000	4	11363	0.000	
15:00 - 15:30	4	11363	0.000	4	11363	0.000	4	11363	0.000	
15:30 - 16:00	4	11363	0.000	4	11363	0.000	4	11363	0.000	
16:00 - 16:30	4	11363	0.000	4	11363	0.000	4	11363	0.000	
16:30 - 17:00	4	11363	0.000	4	11363	0.000	4	11363	0.000	
17:00 - 17:30	4	11363	0.000	4	11363	0.000	4	11363	0.000	
17:30 - 18:00	4	11363	0.000	4	11363	0.000	4	11363	0.000	
18:00 - 18:30	4	11363	0.000	4	11363	0.000	4	11363	0.000	
18:30 - 19:00	4	11363	0.000	4	11363	0.000	4	11363	0.000	
19:00 - 19:30										
19:30 - 20:00										
20:00 - 20:30										
20:30 - 21:00										
21:00 - 21:30										
21:30 - 22:00										
22:00 - 22:30										
22:30 - 23:00										
23:00 - 23:30										
23:30 - 24:00										
Total Rates:			0.004			0.000		<u> </u>	0.004	

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

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

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Friday 19/12/14 Industrial Unit Page 20

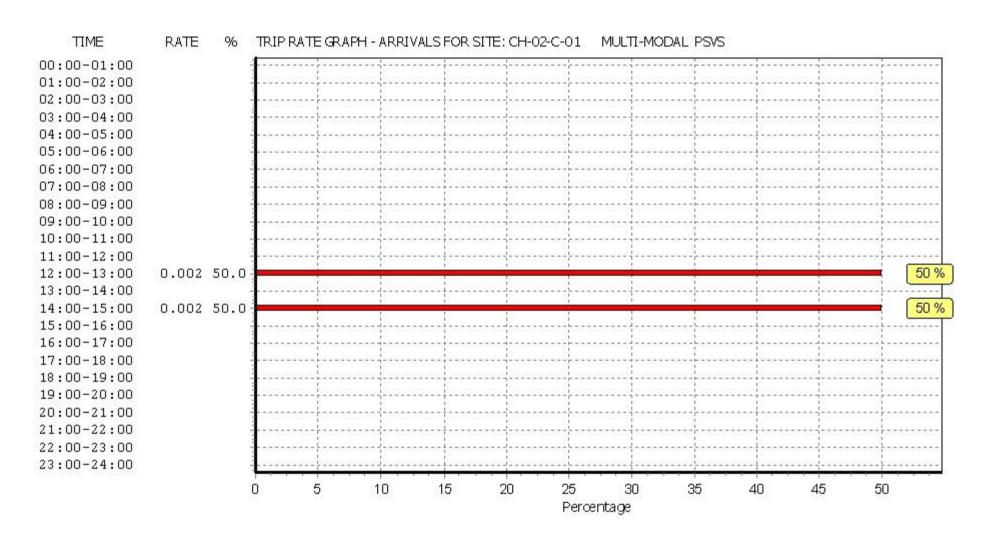
JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

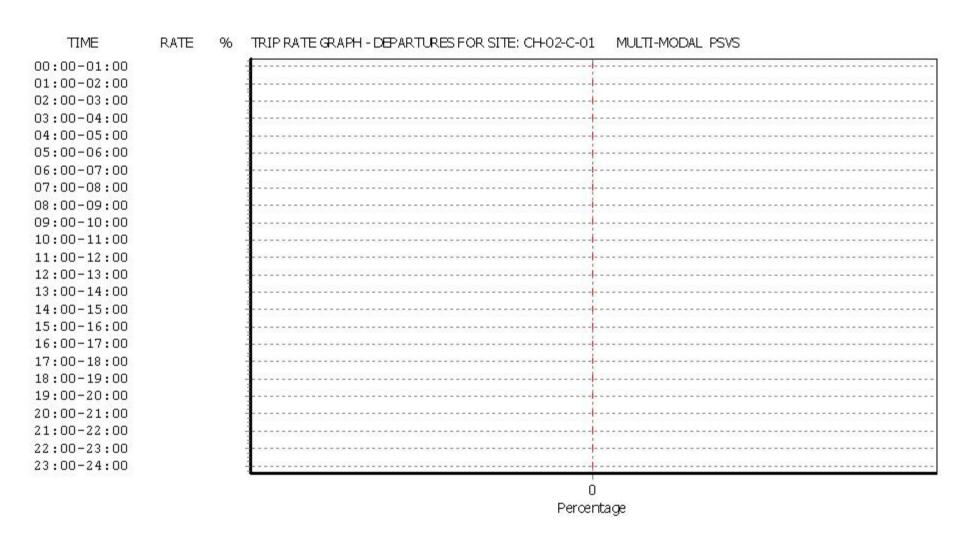
Parameter summary

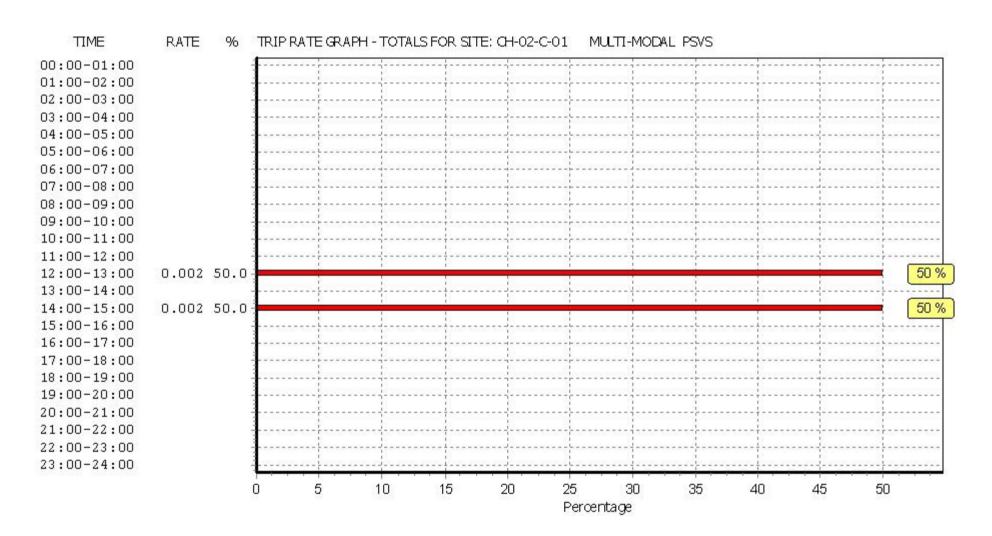
Trip rate parameter range selected: 1880 - 23500 (units: sqm) Survey date date range: 01/01/06 - 22/10/13

Number of weekdays (Monday-Friday):4Number of Saturdays:0Number of Sundays:0Surveys manually removed from selection:1

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.







Licence No: 846406

JMP Consultants Ltd. Bothwell Street Glasgow

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

MULTI-MODAL CYCLISTS
Calculation factor: 100 sgm

BOLD print indicates peak (busiest) period

	ARRIVALS				DEPARTURES		TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate	
00:00 - 00:30	. .			. , .			.,.			
00:30 - 01:00										
01:00 - 01:30										
01:30 - 02:00										
02:00 - 02:30										
02:30 - 03:00										
03:00 - 03:30										
03:30 - 04:00										
04:00 - 04:30										
04:30 - 05:00										
05:00 - 05:30										
05:30 - 06:00										
06:00 - 06:30										
06:30 - 07:00										
07:00 - 07:30	4	11363	0.009	4	11363	0.004	4	11363	0.013	
07:30 - 08:00	4	11363	0.002	4	11363	0.000	4	11363	0.002	
08:00 - 08:30	4	11363	0.011	4	11363	0.002	4	11363	0.013	
08:30 - 09:00	4	11363	0.000	4	11363	0.000	4	11363	0.000	
09:00 - 09:30	4	11363	0.000	4	11363	0.000	4	11363	0.000	
09:30 - 10:00	4	11363	0.000	4	11363	0.002	4	11363	0.000	
10:00 - 10:30	4	11363	0.000	4	11363	0.002	4	11363	0.002	
10:30 - 11:00	4	11363	0.000	4	11363	0.002	4	11363	0.002	
11:00 - 11:30	4	11363	0.000	4	11363	0.002	4	11363	0.000	
11:30 - 12:00	4	11363	0.000	4	11363	0.002	4	11363	0.002	
12:00 - 12:30	4	11363	0.000	4	11363	0.004	4	11363	0.004	
12:30 - 13:00	4	11363	0.000	4	11363	0.000	4	11363	0.000	
13:00 - 13:30	4	11363	0.009	4	11363	0.007	4	11363	0.016	
13:30 - 14:00	4	11363	0.007	4	11363	0.000	4	11363	0.007	
14:00 - 14:30	4	11363	0.004	4	11363	0.024	4	11363	0.007	
14:30 - 15:00	4	11363	0.004	4	11363	0.002	4	11363	0.002	
15:00 - 15:30	4	11363	0.000	4	11363	0.002	4	11363	0.002	
15:30 - 16:00	4	11363	0.000	4	11363	0.004	4	11363	0.004	
16:00 - 16:30	4	11363	0.000	4	11363	0.002	4	11363	0.002	
16:30 - 17:00	4	11363	0.000	4	11363	0.007	4	11363	0.000	
17:00 - 17:30	4	11363	0.002	4	11363	0.007	4	11363	0.000	
17:30 - 17:30	4	11363	0.000	4	11363	0.000	4	11363	0.000	
18:00 - 18:30	4	11363	0.000	4	11363	0.004	4 4	11363	0.004	
18:30 - 19:00	4	11363	0.000	4	11363	0.004	4	11363	0.004	
19:00 - 19:30	4	11303	0.007	4	11303	0.004	4	11303	0.011	
19:30 - 20:00					+		+			
20:00 - 20:30					+					
20:30 - 21:00										
21:00 - 21:30										
21:30 - 22:00										
22:00 - 22:30					-					
22:30 - 23:00							-			
23:00 - 23:30					-					
23:30 - 24:00										
Total Rates:			0.051			0.070			0.121	
TULAI KALES.			0.031			0.070			0.121	

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

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

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Friday 19/12/14 Industrial Unit Page 25

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

Parameter summary

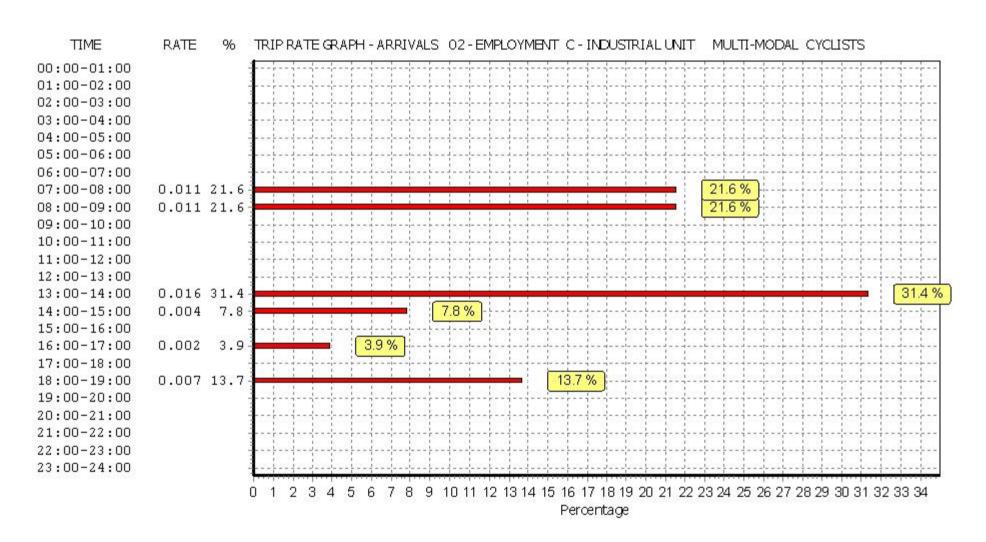
Trip rate parameter range selected: 1880 - 23500 (units: sqm) Survey date date range: 01/01/06 - 22/10/13

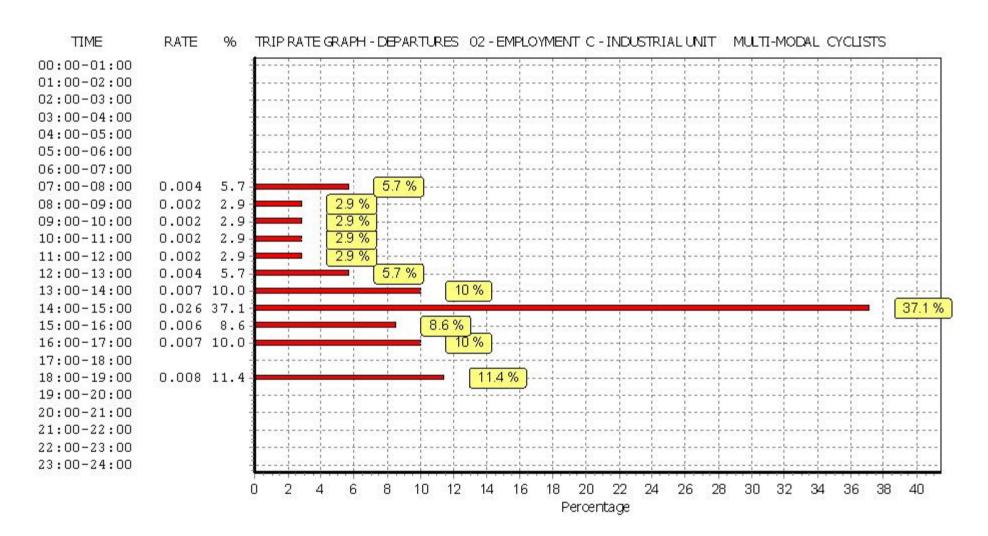
Number of weekdays (Monday-Friday): 4
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 1

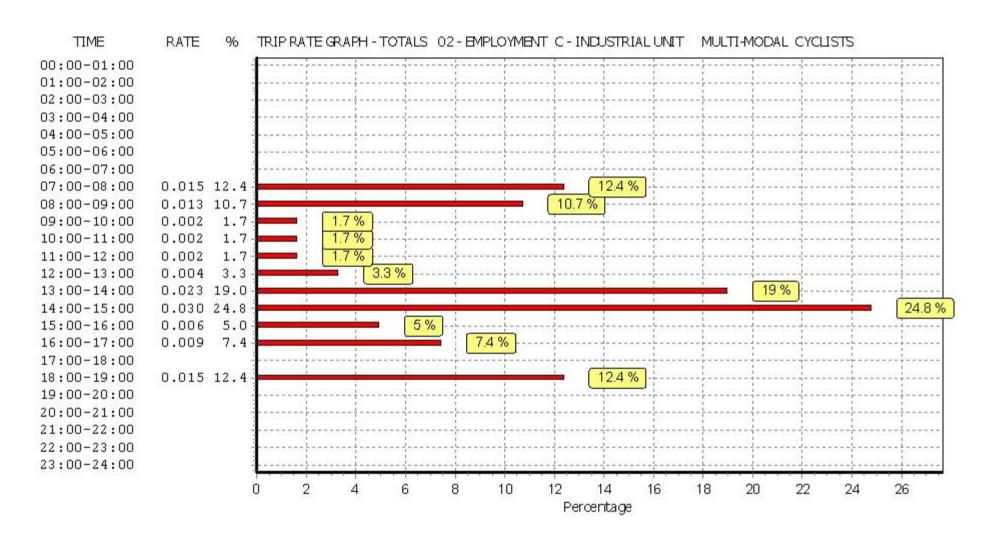
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected 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.

JMP Consultants Ltd. Bothwell Street Glasgow

Licence No: 846406







Licence No: 846406

JMP Consultants Ltd. Bothwell Street Glasgow

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS				DEPARTURES		TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate	
00:00 - 00:30							.,.			
00:30 - 01:00										
01:00 - 01:30										
01:30 - 02:00										
02:00 - 02:30										
02:30 - 03:00										
03:00 - 03:30										
03:30 - 04:00										
04:00 - 04:30										
04:30 - 05:00										
05:00 - 05:30										
05:30 - 06:00										
06:00 - 06:30										
06:30 - 07:00										
07:00 - 07:30	4	11363	0.068	4	11363	0.136	4	11363	0.204	
07:30 - 08:00	4	11363	0.108	4	11363	0.033	4	11363	0.141	
08:00 - 08:30	4	11363	0.128	4	11363	0.037	4	11363	0.141	
08:30 - 09:00	4	11363	0.120	4	11363	0.046	4	11363	0.156	
09:00 - 09:30	4	11363	0.110	4	11363	0.048	4	11363	0.130	
09:30 - 10:00	4	11363	0.075	4	11363	0.040	4	11363	0.107	
10:00 - 10:30	4	11363	0.062	4	11363	0.040	4	11363	0.113	
10:30 - 11:00	4	11363	0.062	4	11363	0.042	4	11363	0.104	
11:00 - 11:30	4	11363	0.053	4	11363	0.042	4	11363	0.090	
11:30 - 12:00	4	11363	0.062	4	11363	0.057	4	11363	0.121	
12:00 - 12:30	4	11363	0.002	4	11363	0.034	4	11363	0.121	
12:30 - 13:00	4	11363	0.046	4	11363	0.057	4	11363	0.132	
13:00 - 13:30	4	11363	0.000	4	11363	0.037	4	11363	0.123	
13:30 - 14:00	4	11363	0.112	4	11363	0.077	4	11363	0.248	
14:00 - 14:30	4	11363	0.167	4	11363	0.279	4	11363	0.446	
14:30 - 15:00	4	11363	0.107	4	11363	0.279	4	11363	0.239	
15:00 - 15:30	4	11363	0.123	4	11363	0.114	4	11363	0.239	
15:30 - 16:00	4	11363	0.099	4	11363	0.110	4	11363	0.354	
16:00 - 16:30	4	11363	0.044	4	11363	0.233	4	11363	0.334	
16:30 - 17:00	4	11363	0.044	4	11363	0.073	4	11363	0.119	
17:00 - 17:30	4	11363	0.082	4	11363	0.196	4	11363	0.280	
17:30 - 17:30			0.020			0.121				
18:00 - 18:30	4	11363 11363	0.018	4 4	11363 11363	0.090	4 4	11363 11363	0.108 0.130	
18:30 - 19:00	4	11363	0.051	4	11363	0.079	4	11363	0.130	
19:00 - 19:30	4	11303	0.090	4	11303	0.073	4	11303	U. 103	
19:30 - 20:00 20:00 - 20:30	+				+		+	-		
20:30 - 21:00	+				+		-	-		
21:00 - 21:30	+				+					
21:30 - 22:00					-		+			
22:00 - 22:30										
22:30 - 23:00										
23:00 - 23:30										
23:30 - 24:00			2.125			0.0/1			1.007	
Total Rates:			2.125			2.261			4.386	

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

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

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Friday 19/12/14 Industrial Unit Page 30

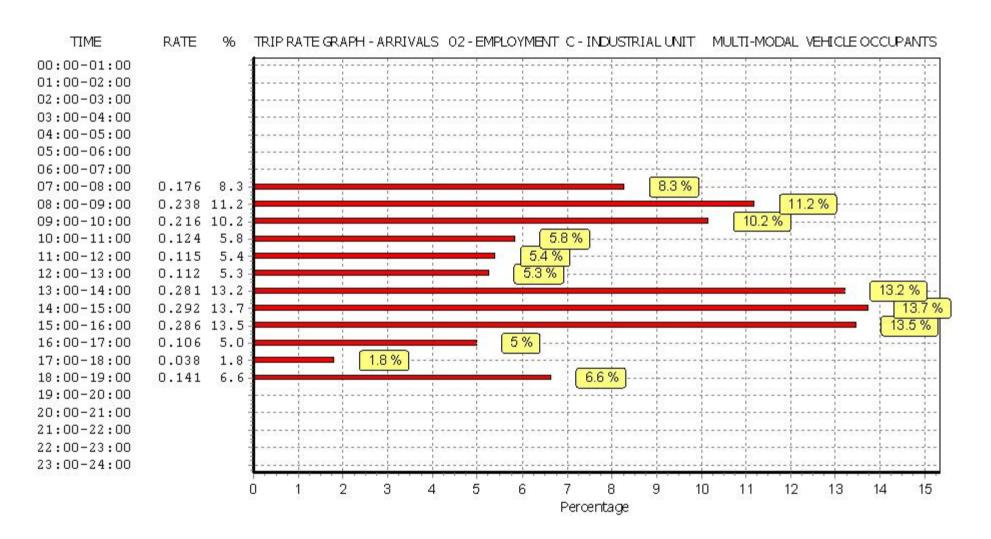
JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

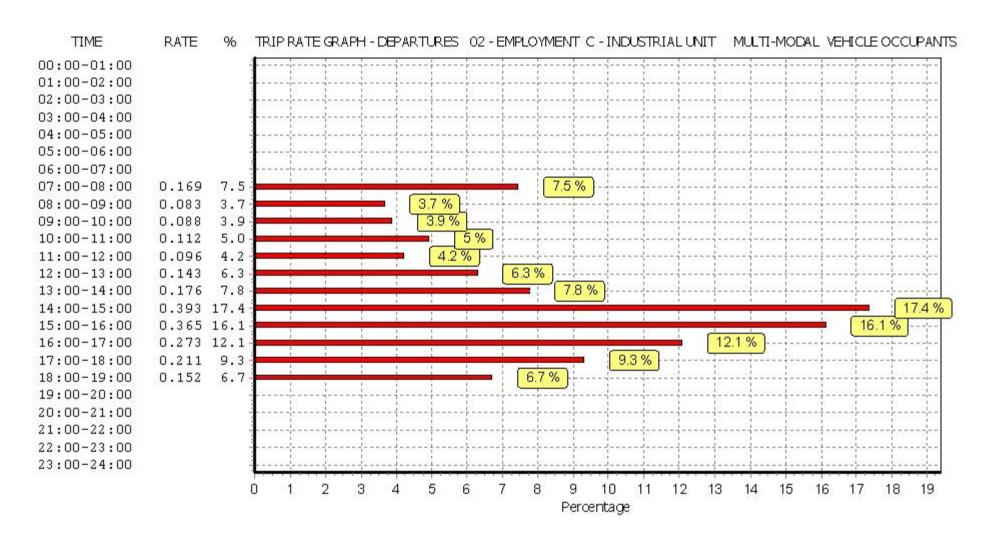
Parameter summary

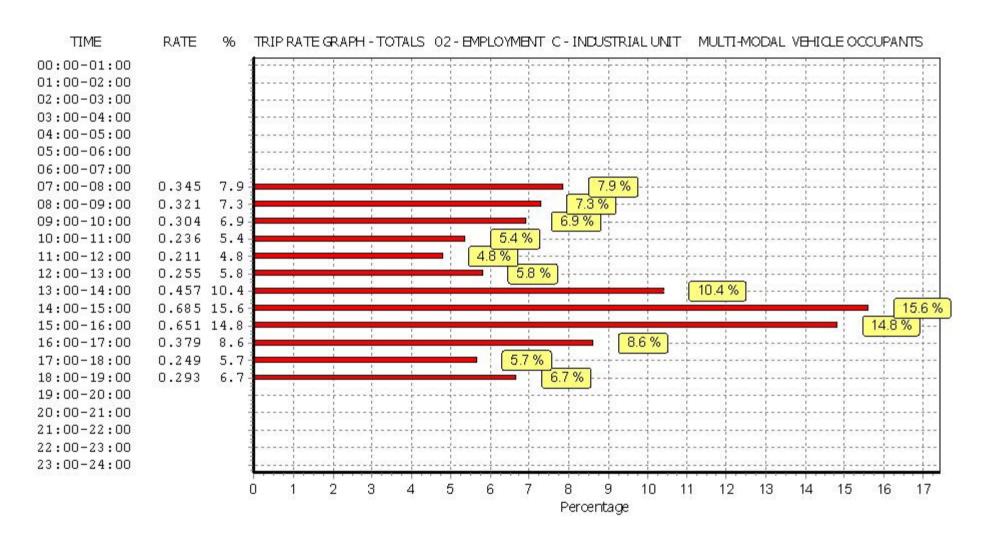
Trip rate parameter range selected: 1880 - 23500 (units: sqm) Survey date date range: 01/01/06 - 22/10/13

Number of weekdays (Monday-Friday):4Number of Saturdays:0Number of Sundays:0Surveys manually removed from selection:1

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.







Licence No: 846406

JMP Consultants Ltd. Bothwell Street Glasgow

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

MULTI-MODAL PEDESTRIANS Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			С	EPARTURES		TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate	
00:00 - 00:30	-			,						
00:30 - 01:00										
01:00 - 01:30										
01:30 - 02:00										
02:00 - 02:30										
02:30 - 03:00										
03:00 - 03:30										
03:30 - 04:00										
04:00 - 04:30										
04:30 - 05:00										
05:00 - 05:30										
05:30 - 06:00										
06:00 - 06:30										
06:30 - 07:00										
07:00 - 07:30	4	11363	0.002	4	11363	0.020	4	11363	0.022	
07:30 - 08:00	4	11363	0.011	4	11363	0.004	4	11363	0.015	
08:00 - 08:30	4	11363	0.011	4	11363	0.002	4	11363	0.013	
08:30 - 09:00	4	11363	0.009	4	11363	0.007	4	11363	0.016	
09:00 - 09:30	4	11363	0.013	4	11363	0.013	4	11363	0.026	
09:30 - 10:00	4	11363	0.009	4	11363	0.011	4	11363	0.020	
10:00 - 10:30	4	11363	0.007	4	11363	0.011	4	11363	0.028	
10:30 - 11:00	4	11363	0.015	4	11363	0.015	4	11363	0.030	
11:00 - 11:30	4	11363	0.004	4	11363	0.013	4	11363	0.030	
11:30 - 12:00	4	11363	0.004	4	11363	0.004	4	11363	0.017	
12:00 - 12:30	4	11363	0.002	4	11363	0.013	4	11363	0.015	
12:30 - 13:00	4	11363	0.002	4	11363	0.007	4	11363	0.016	
13:00 - 13:30	4	11363	0.068	4	11363	0.018	4	11363	0.086	
13:30 - 14:00	4	11363	0.042	4	11363	0.035	4	11363	0.000	
14:00 - 14:30	4	11363	0.009	4	11363	0.033	4	11363	0.097	
14:30 - 15:00	4	11363	0.002	4	11363	0.033	4	11363	0.035	
15:00 - 15:30	4	11363	0.002	4	11363	0.033	4	11363	0.033	
15:30 - 16:00	4	11363	0.002	4	11363	0.055	4	11363	0.057	
16:00 - 16:30	4	11363	0.002	4	11363	0.033	4	11363	0.037	
16:30 - 17:00	4	11363	0.007	4	11363	0.009	4	11363	0.016	
17:00 - 17:30	4	11363	0.007	4	11363	0.007	4	11363	0.015	
17:30 - 17:30	4	11363	0.004	4	11363	0.011	4	11363	0.015	
18:00 - 18:30	4	11363	0.004	4	11363	0.004	4	11363	0.006	
18:30 - 19:00	4	11363	0.002	4	11363	0.004	4	11363	0.008	
19:00 - 19:30	4	11303	0.013	4	11303	0.011	4	11303	0.024	
19:30 - 20:00										
20:00 - 20:30										
20:30 - 21:00							+			
21:00 - 21:30							-			
21:30 - 22:00										
22:00 - 22:30							-			
							+			
22:30 - 23:00										
23:00 - 23:30										
23:30 - 24:00			0.274			0.405			0.747	
Total Rates:			0.261			0.485			0.746	

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

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

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Friday 19/12/14 Industrial Unit Page 35

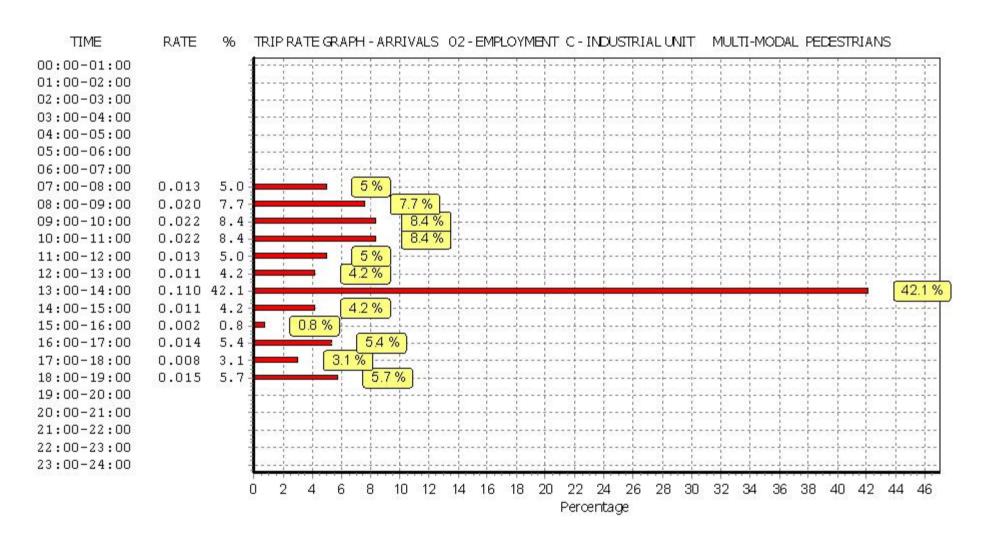
JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

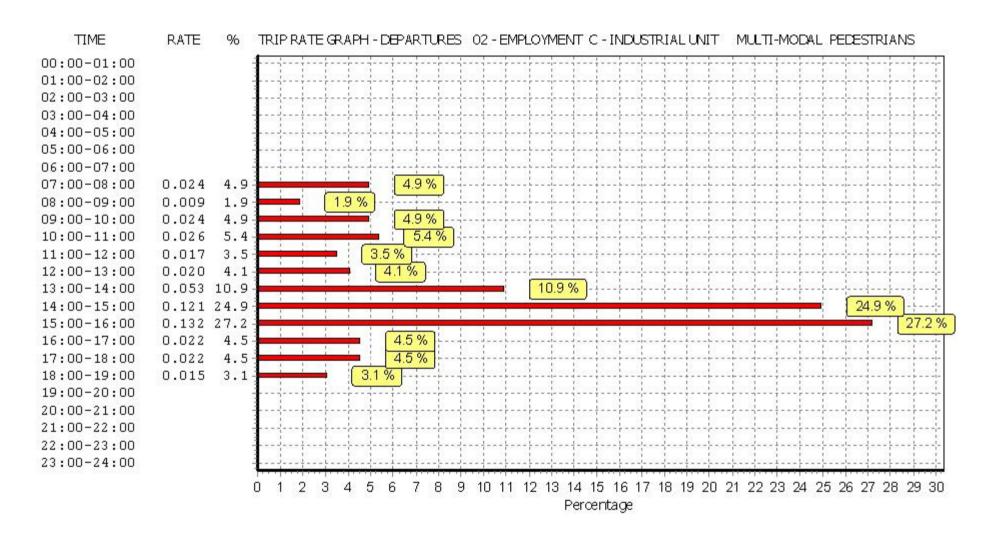
Parameter summary

Trip rate parameter range selected: 1880 - 23500 (units: sqm) Survey date date range: 01/01/06 - 22/10/13

Number of weekdays (Monday-Friday):4Number of Saturdays:0Number of Sundays:0Surveys manually removed from selection:1

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.





JMP Consultants Ltd. Bothwell Street Glasgow

TIME RATE TRIP RATE GRAPH - TOTALS 02 - EMPLOYMENT C - INDUSTRIAL UNIT MULTI-MODAL PEDESTRIANS 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 5% 07:00-08:00 0.037 5.0 0.029 3.9 3.9% 08:00-09:00 6.2 % 09:00-10:00 0.046 6.2 6.4 10:00-11:00 0.048 64% 4% 11:00-12:00 0.030 4.0 4.2 % 12:00-13:00 0.031 4.2 21.8% 13:00-14:00 0.163 21.8 17.7% 14:00-15:00 0.132 17.7 0.134 18.0 18% 15:00-16:00 16:00-17:00 0.036 4.8 4.8% 17:00-18:00 0.030 4.0 4% 4.0 4% 18:00-19:00 0.030 19:00-20:00 20:00-21:00 21:00-22:00 22:00-23:00 23:00-24:00 11 12 13 14 15 16 17 18 19 20 21 22 23 24 5 6 8 10

Percentage

Licence No: 846406

Licence No: 846406

JMP Consultants Ltd. Bothwell Street Glasgow

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT MULTI-MODAL BUS/TRAM PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			[DEPARTURES		TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate	
00:00 - 00:30				•			•			
00:30 - 01:00										
01:00 - 01:30										
01:30 - 02:00										
02:00 - 02:30										
02:30 - 03:00										
03:00 - 03:30										
03:30 - 04:00										
04:00 - 04:30										
04:30 - 05:00										
05:00 - 05:30										
05:30 - 06:00										
06:00 - 06:30										
06:30 - 07:00										
07:00 - 07:30	4	11363	0.024	4	11363	0.000	4	11363	0.024	
07:30 - 08:00	4	11363	0.024	4	11363	0.000	4	11363	0.024	
08:00 - 08:30	4	11363	0.009	4	11363	0.002	4	11363	0.000	
08:30 - 09:00		11363	0.000			0.000			0.008	
	4			4	11363		4	11363		
09:00 - 09:30	4	11363	0.004	4	11363	0.000	4	11363	0.004	
09:30 - 10:00	4	11363	0.000	4	11363	0.000	4	11363	0.000	
10:00 - 10:30	4	11363	0.000	4	11363	0.000	4	11363	0.000	
10:30 - 11:00	4	11363	0.000	4	11363	0.000	4	11363	0.000	
11:00 - 11:30	4	11363	0.004	4	11363	0.000	4	11363	0.004	
11:30 - 12:00	4	11363	0.000	4	11363	0.000	4	11363	0.000	
12:00 - 12:30	4	11363	0.000	4	11363	0.000	4	11363	0.000	
12:30 - 13:00	4	11363	0.002	4	11363	0.002	4	11363	0.004	
13:00 - 13:30	4	11363	0.000	4	11363	0.000	4	11363	0.000	
13:30 - 14:00	4	11363	0.000	4	11363	0.000	4	11363	0.000	
14:00 - 14:30	4	11363	0.007	4	11363	0.042	4	11363	0.049	
14:30 - 15:00	4	11363	0.000	4	11363	0.007	4	11363	0.007	
15:00 - 15:30	4	11363	0.000	4	11363	0.053	4	11363	0.053	
15:30 - 16:00	4	11363	0.000	4	11363	0.009	4	11363	0.009	
16:00 - 16:30	4	11363	0.000	4	11363	0.022	4	11363	0.022	
16:30 - 17:00	4	11363	0.000	4	11363	0.002	4	11363	0.002	
17:00 - 17:30	4	11363	0.004	4	11363	0.004	4	11363	0.008	
17:30 - 18:00	4	11363	0.000	4	11363	0.004	4	11363	0.004	
18:00 - 18:30	4	11363	0.000	4	11363	0.002	4	11363	0.002	
18:30 - 19:00	4	11363	0.000	4	11363	0.000	4	11363	0.000	
19:00 - 19:30										
19:30 - 20:00										
20:00 - 20:30										
20:30 - 21:00										
21:00 - 21:30										
21:30 - 22:00										
22:00 - 22:30										
22:30 - 23:00										
23:00 - 23:30										
23:30 - 24:00										
Total Rates:			0.058			0.153		<u> </u>	0.211	

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

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

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Friday 19/12/14 Industrial Unit Page 40

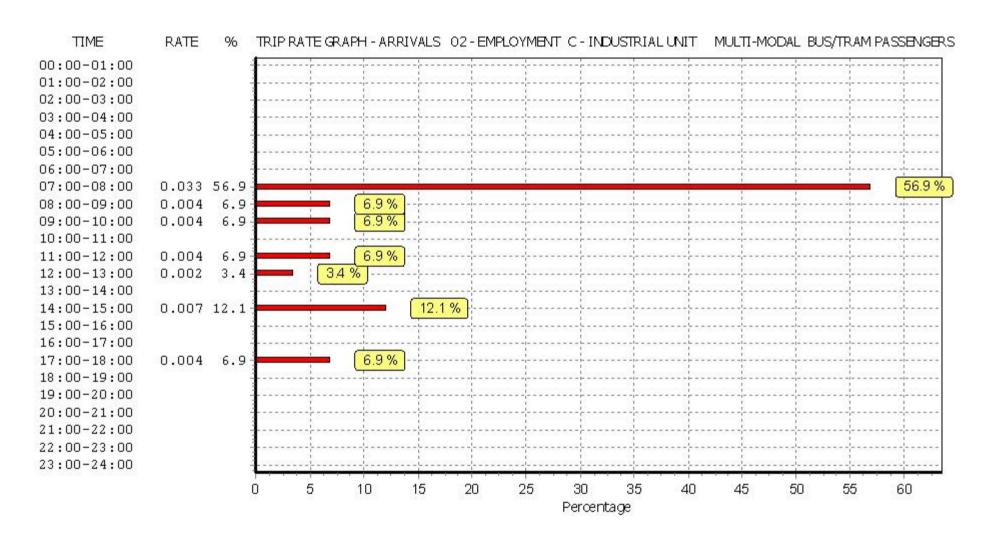
JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

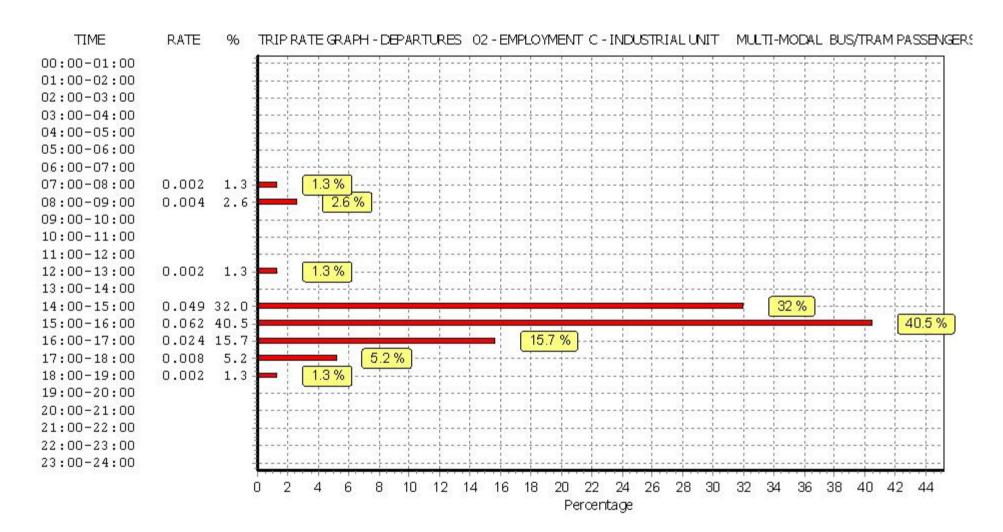
Parameter summary

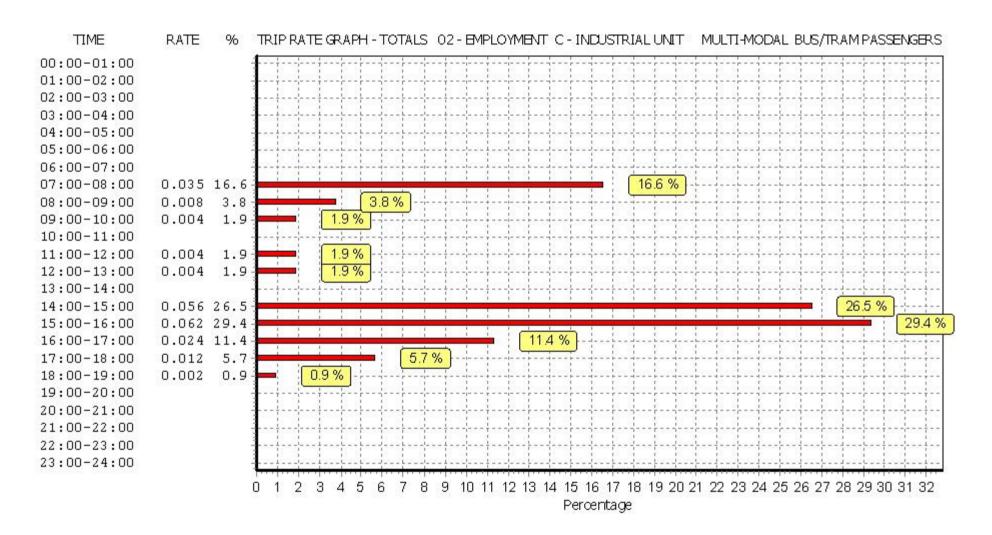
Trip rate parameter range selected: 1880 - 23500 (units: sqm) Survey date date range: 01/01/06 - 22/10/13

Number of weekdays (Monday-Friday):4Number of Saturdays:0Number of Sundays:0Surveys manually removed from selection:1

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.







Licence No: 846406

JMP Consultants Ltd. Bothwell S

Bothwell Street C

Glasgow

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT MULTI-MODAL TOTAL RAIL PASSENGERS Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS		[DEPARTURES		TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 00:30				,			,		
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
		11242	0.000	A	11242	0.000	1	11242	0.000
07:00 - 07:30 07:30 - 08:00	4	11363 11363	0.000	4	11363 11363	0.000	4 4	11363 11363	0.000
08:00 - 08:30	4	11363	0.002	4	11363	0.000	4	11363	0.002
08:30 - 09:00	4	11363	0.000	4	11363	0.000	4	11363	0.000
09:00 - 09:30	4	11363	0.000	4	11363	0.000	4	11363	0.000
09:30 - 10:00	4	11363	0.000	4	11363	0.000	4 4	11363	0.000
10:00 - 10:30	4	11363	0.000	4	11363	0.000	4	11363	0.000
10:30 - 11:00	4	11363	0.000	4	11363	0.000	4	11363	0.000
11:00 - 11:30	4	11363	0.000	4	11363	0.000	4	11363	0.000
11:30 - 12:00	4	11363	0.000	4	11363	0.000	4	11363	0.000
12:00 - 12:30	4		0.000	4	11363	0.000	4 4	11363	0.000
12:30 - 12:30	4	11363 11363	0.000	4	11363	0.000	4	11363	0.000
13:00 - 13:30	4	11363	0.000	4	11363	0.000	4	11363	0.000
13:30 - 14:00	4	11363	0.000	4	11363	0.000	4	11363	0.000
			0.000		11363				0.000
14:00 - 14:30	4	11363		4		0.000	4	11363	
14:30 - 15:00	4	11363	0.000	4	11363	0.000	4	11363	0.000
15:00 - 15:30	4	11363	0.000	4	11363	0.000	4	11363	0.000
15:30 - 16:00	4	11363	0.000	4	11363	0.000	4	11363	0.000
16:00 - 16:30	4	11363	0.000	4	11363	0.000	4	11363	0.000
16:30 - 17:00	4	11363	0.000	4	11363	0.000	4	11363	0.000
17:00 - 17:30	4	11363	0.000	4	11363	0.002	4	11363	0.002
17:30 - 18:00	4	11363	0.000	4	11363	0.000	4	11363	0.000
18:00 - 18:30	4	11363	0.000	4	11363	0.000	4	11363	0.000
18:30 - 19:00	4	11363	0.000	4	11363	0.000	4	11363	0.000
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30							-		
22:30 - 23:00 23:00 - 23:30									
23:30 - 24:00 Total Rates:			0.002			0.003			0.004
Total Rates:			0.002			0.002			0.004

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

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

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Friday 19/12/14 Industrial Unit Page 45

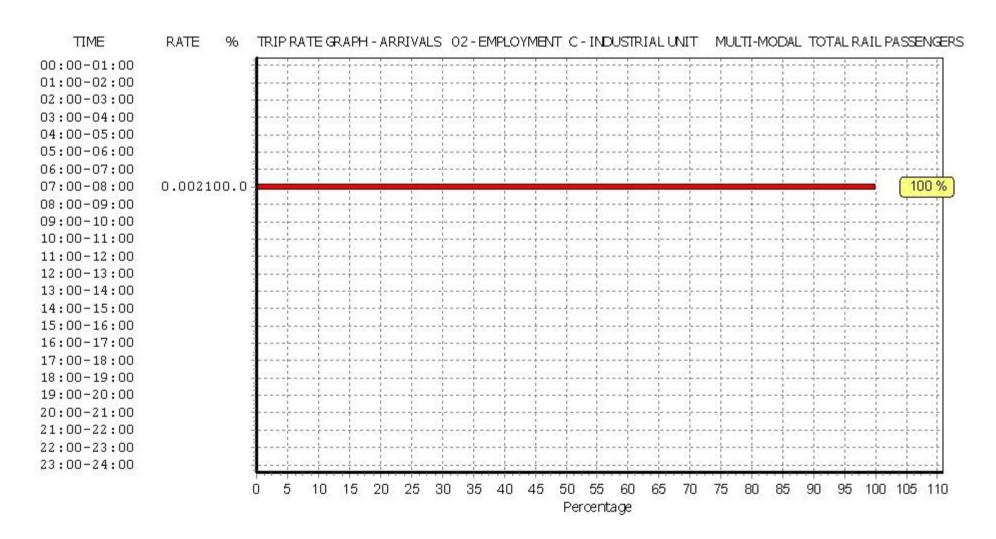
JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

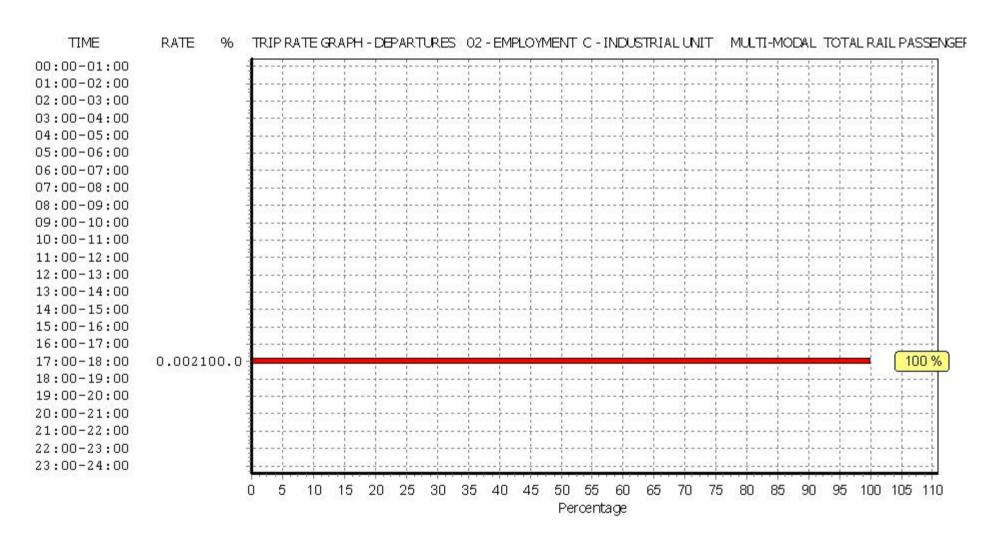
Parameter summary

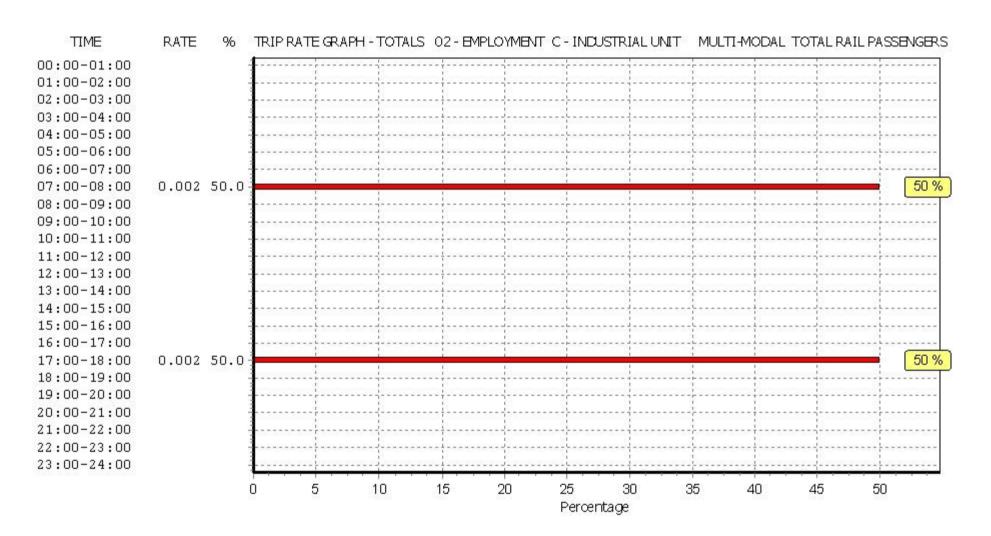
Trip rate parameter range selected: 1880 - 23500 (units: sqm) Survey date date range: 01/01/06 - 22/10/13

Number of weekdays (Monday-Friday):4Number of Saturdays:0Number of Sundays:0Surveys manually removed from selection:1

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.







Licence No: 846406

JMP Consultants Ltd. Bothwell Street

Glasgow

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT MULTI-MODAL COACH PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS				EPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 00:30	,			,					
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	4	11363	0.000	4	11363	0.000	4	11363	0.000
07:30 - 08:00	4	11363	0.000	4	11363	0.000	4	11363	0.000
08:00 - 08:30	4	11363	0.000	4	11363	0.000	4	11363	0.000
08:30 - 09:00	4	11363	0.000	4	11363	0.000	4	11363	0.000
09:00 - 09:30	4	11363	0.000	4	11363	0.000	4	11363	0.000
09:30 - 10:00	4	11363	0.000	4	11363	0.000	4	11363	0.000
10:00 - 10:30	4	11363	0.000	4	11363	0.000	4	11363	0.000
10:30 - 11:00	4	11363	0.000	4	11363	0.000	4	11363	0.000
11:00 - 11:30	4	11363	0.000	4	11363	0.000	4	11363	0.000
11:30 - 12:00	4	11363	0.000	4	11363	0.000	4	11363	0.000
12:00 - 12:30	4	11363	0.000	4	11363	0.000	4	11363	0.000
12:30 - 13:00	4	11363	0.000	4	11363	0.000	4	11363	0.000
13:00 - 13:30	4	11363	0.000	4	11363	0.000	4	11363	0.000
13:30 - 14:00	4	11363	0.000	4	11363	0.000	4	11363	0.000
14:00 - 14:30	4	11363	0.000	4	11363	0.000	4	11363	0.000
14:30 - 15:00	4	11363	0.000	4	11363	0.000	4	11363	0.000
15:00 - 15:30	4	11363	0.000	4	11363	0.000	4	11363	0.000
15:30 - 16:00	4	11363	0.000	4	11363	0.000	4	11363	0.000
16:00 - 16:30	4	11363	0.000	4	11363	0.000	4	11363	0.000
16:30 - 17:00	4	11363	0.000	4	11363	0.000	4	11363	0.000
17:00 - 17:30	4	11363	0.000	4	11363	0.000	4	11363	0.000
17:30 - 18:00	4	11363	0.000	4	11363	0.000	4	11363	0.000
18:00 - 18:30	4	11363	0.000	4	11363	0.000	4	11363	0.000
18:30 - 19:00	4	11363	0.000	4	11363	0.000	4	11363	0.000
19:00 - 19:30							•		
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.000			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.

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Friday 19/12/14 Industrial Unit Page 50

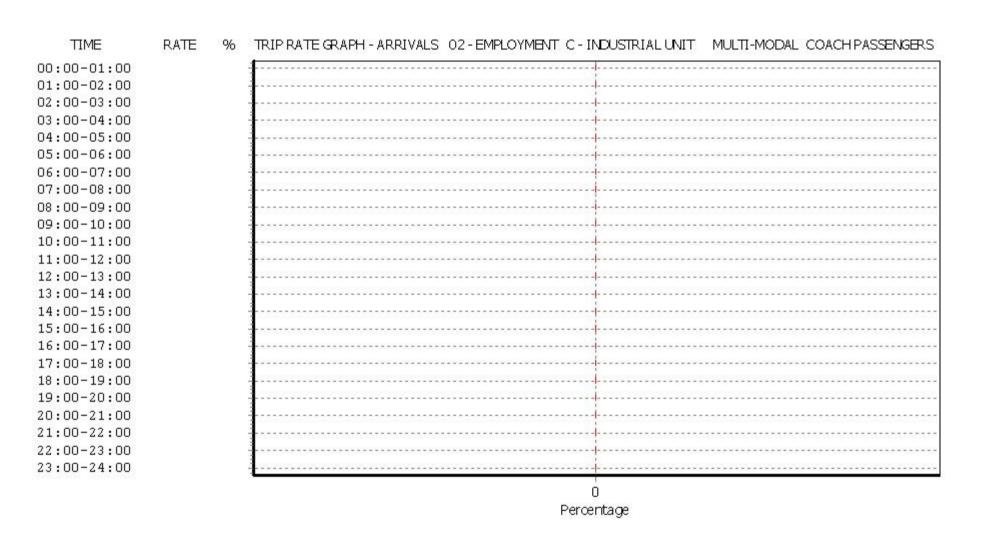
JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

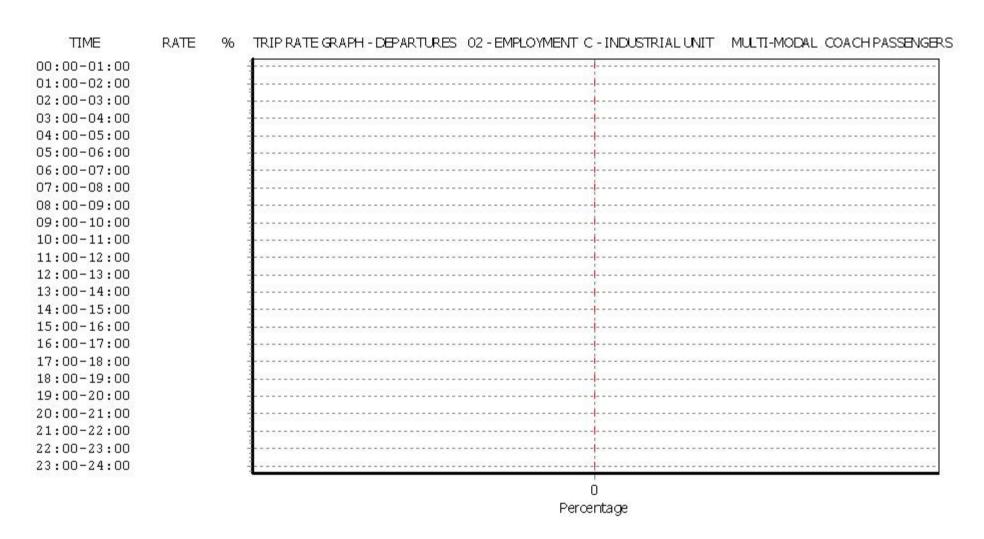
Parameter summary

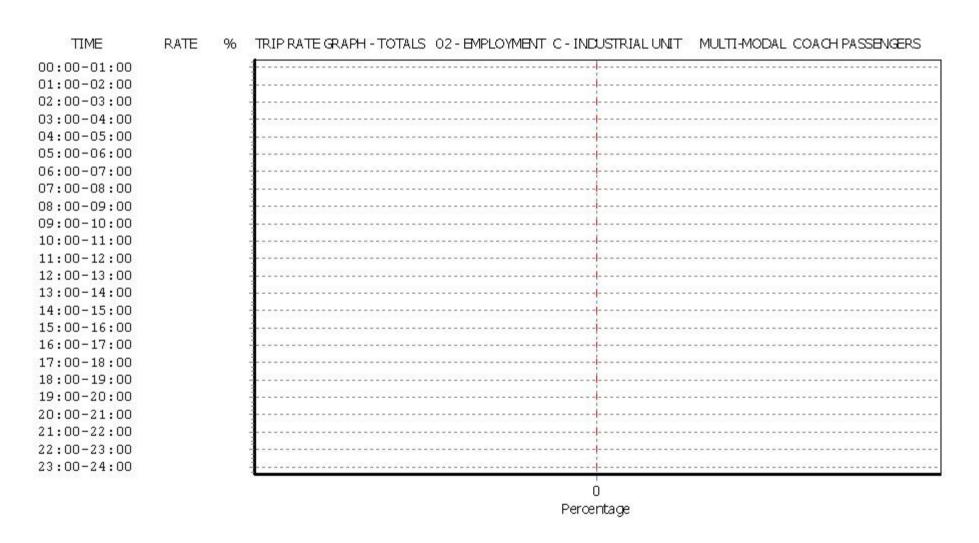
Trip rate parameter range selected: 1880 - 23500 (units: sqm) Survey date date range: 01/01/06 - 22/10/13

Number of weekdays (Monday-Friday): 4
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 1

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.







Licence No: 846406

JMP Consultants Ltd. Bothwell Street Glasgow

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS			EPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 00:30	•								
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	4	11363	0.024	4	11363	0.000	4	11363	0.024
07:30 - 08:00	4	11363	0.011	4	11363	0.002	4	11363	0.013
08:00 - 08:30	4	11363	0.000	4	11363	0.000	4	11363	0.000
08:30 - 09:00	4	11363	0.004	4	11363	0.004	4	11363	0.008
09:00 - 09:30	4	11363	0.004	4	11363	0.000	4	11363	0.004
09:30 - 10:00	4	11363	0.000	4	11363	0.000	4	11363	0.000
10:00 - 10:30	4	11363	0.000	4	11363	0.000	4	11363	0.000
10:30 - 11:00	4	11363	0.000	4	11363	0.000	4	11363	0.000
11:00 - 11:30	4	11363	0.004	4	11363	0.000	4	11363	0.004
11:30 - 12:00	4	11363	0.000	4	11363	0.000	4	11363	0.000
12:00 - 12:30	4	11363	0.000	4	11363	0.000	4	11363	0.000
12:30 - 13:00	4	11363	0.002	4	11363	0.002	4	11363	0.004
13:00 - 13:30	4	11363	0.000	4	11363	0.000	4	11363	0.000
13:30 - 14:00	4	11363	0.000	4	11363	0.000	4	11363	0.000
14:00 - 14:30	4	11363	0.007	4	11363	0.042	4	11363	0.049
14:30 - 15:00	4	11363	0.000	4	11363	0.007	4	11363	0.007
15:00 - 15:30	4	11363	0.000	4	11363	0.053	4	11363	0.053
15:30 - 16:00	4	11363	0.000	4	11363	0.009	4	11363	0.009
16:00 - 16:30	4	11363	0.000	4	11363	0.022	4	11363	0.022
16:30 - 17:00	4	11363	0.000	4	11363	0.002	4	11363	0.002
17:00 - 17:30	4	11363	0.004	4	11363	0.002	4	11363	0.002
17:30 - 17:30	4	11363	0.000	4	11363	0.007	4	11363	0.004
18:00 - 18:30	4	11363	0.000	4	11363	0.002	4	11363	0.004
18:30 - 19:00	4	11363	0.000	4	11363	0.002	4	11363	0.002
19:00 - 19:30		11303	0.000	4	11303	0.000		11303	0.000
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.060			0.156			0.216
Total Nates.			0.000			0.150			0.210

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

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

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Friday 19/12/14 Industrial Unit Page 55

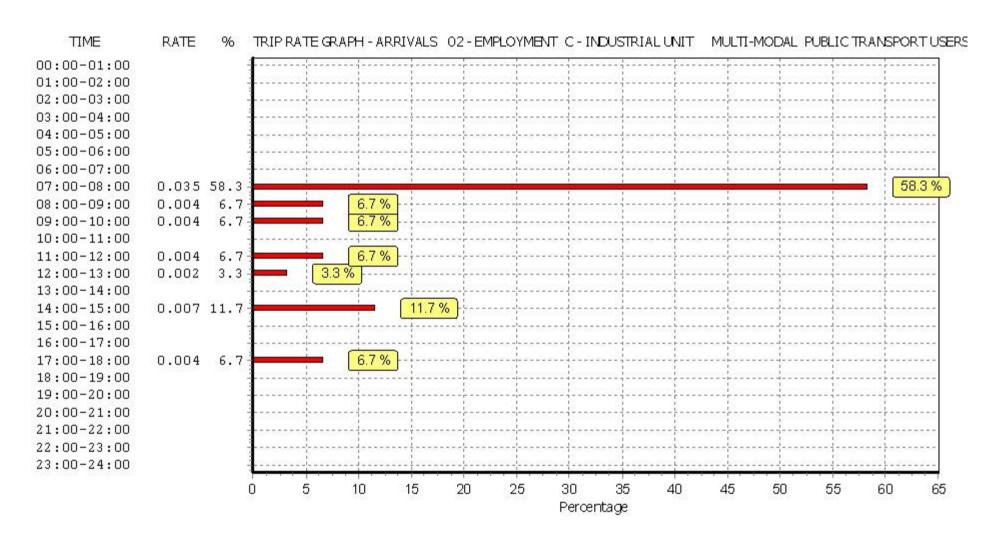
JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

Parameter summary

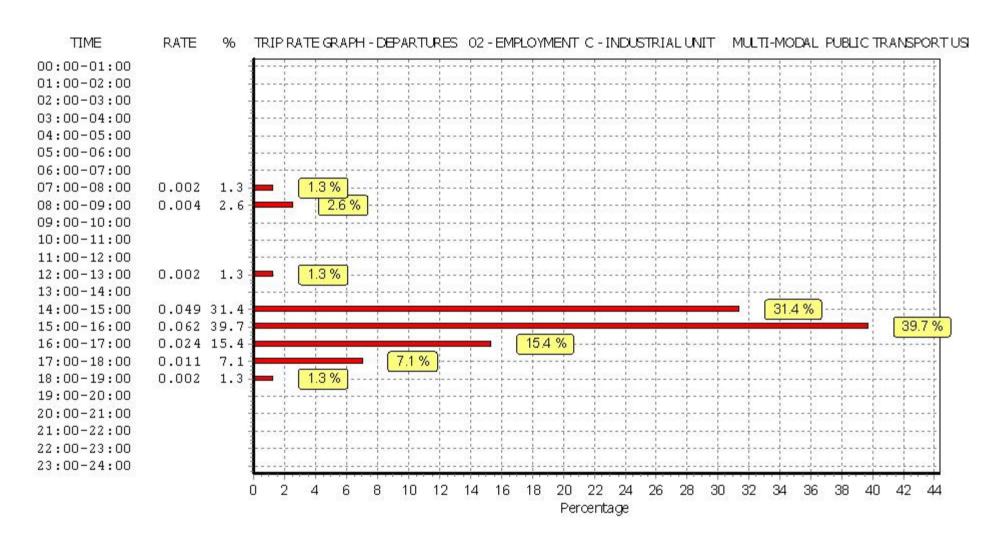
Trip rate parameter range selected: 1880 - 23500 (units: sqm) Survey date date range: 01/01/06 - 22/10/13

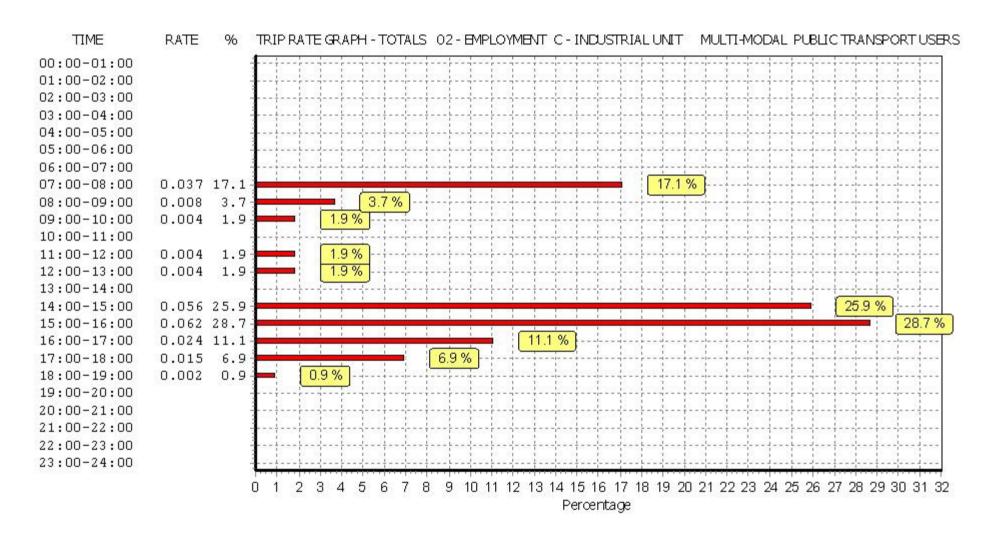
Number of weekdays (Monday-Friday):4Number of Saturdays:0Number of Sundays:0Surveys manually removed from selection:1

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.



Licence No: 846406





Licence No: 846406

JMP Consultants Ltd. Bothwell Street Glasgow

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

MULTI-MODAL TOTAL PEOPLE Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 00:30	,			,			,		
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	4	11363	0.103	4	11363	0.161	4	11363	0.264
07:30 - 08:00	4	11363	0.103	4	11363	0.101	4	11363	0.204
08:00 - 08:30	4	11363	0.132	4	11363	0.040	4	11363	0.172
08:30 - 09:00	4	11363	0.130	4	11363	0.042	4	11363	0.192
09:00 - 09:30	4	11363	0.123	4	11363	0.062	4	11363	0.180
09:30 - 10:00	4	11363	0.136	4	11363	0.062	4	11363	0.220
10:00 - 10:30	4	11363	0.084	4	11363	0.053	4	11363	0.137
10:30 - 11:00		11363	0.088	4	11363	0.057	4	11363	
	4	11363	0.077		11363	0.057			0.134
11:00 - 11:30	4		0.062	4			4	11363	
11:30 - 12:00	4	11363		4	11363	0.064	4	11363	0.134
12:00 - 12:30	4	11363	0.048	4	11363	0.103	4	11363	0.151
12:30 - 13:00	4	11363	0.077	4	11363	0.066	4	11363	0.143
13:00 - 13:30	4	11363	0.189	4	11363	0.121	4	11363	0.310
13:30 - 14:00	4	11363	0.218	4	11363	0.114	4	11363	0.332
14:00 - 14:30	4	11363	0.187	4	11363	0.433	4	11363	0.620
14:30 - 15:00	4	11363	0.128	4	11363	0.156	4	11363	0.284
15:00 - 15:30	4	11363	0.187	4	11363	0.244	4	11363	0.431
15:30 - 16:00	4	11363	0.101	4	11363	0.321	4	11363	0.422
16:00 - 16:30	4	11363	0.051	4	11363	0.110	4	11363	0.161
16:30 - 17:00	4	11363	0.070	4	11363	0.216	4	11363	0.286
17:00 - 17:30	4	11363	0.029	4	11363	0.139	4	11363	0.168
17:30 - 18:00	4	11363	0.022	4	11363	0.106	4	11363	0.128
18:00 - 18:30	4	11363	0.053	4	11363	0.090	4	11363	0.143
18:30 - 19:00	4	11363	0.110	4	11363	0.088	4	11363	0.198
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			2.497			2.980			5.477

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

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

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Friday 19/12/14 Industrial Unit Page 60

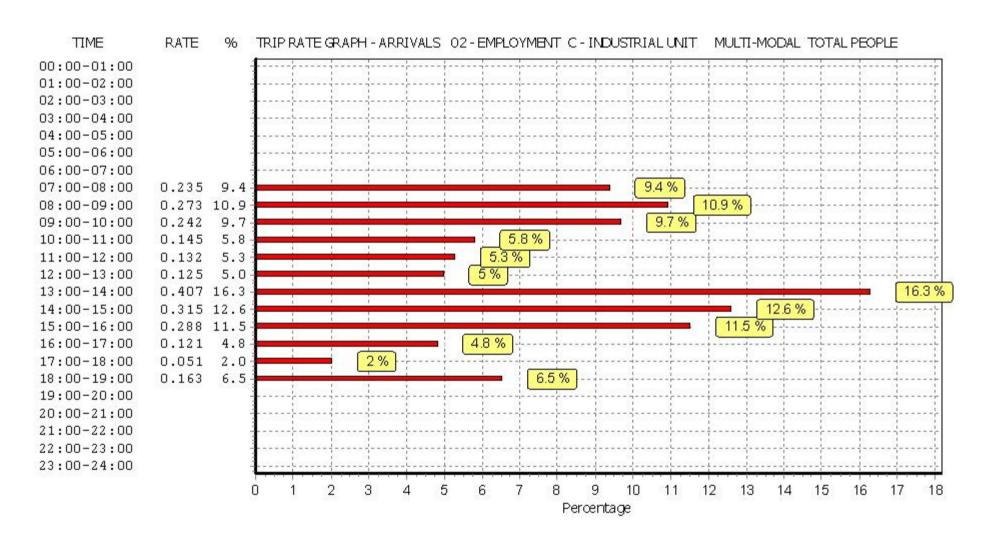
JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

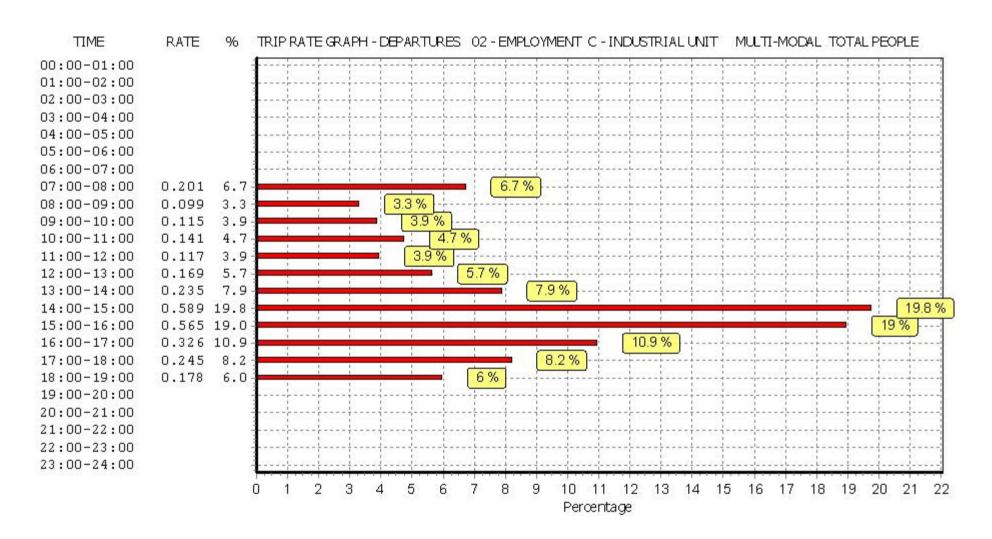
Parameter summary

Trip rate parameter range selected: 1880 - 23500 (units: sqm) Survey date date range: 01/01/06 - 22/10/13

Number of weekdays (Monday-Friday):4Number of Saturdays:0Number of Sundays:0Surveys manually removed from selection:1

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





TIME RATE TRIP RATE GRAPH - TOTALS 02 - EMPLOYMENT C - INDUSTRIAL UNIT MULTI-MODAL TOTAL PEOPLE 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 8% 07:00-08:00 0.436 8.0 0.372 6.8 6.8 % 08:00-09:00 6.5 % 09:00-10:00 0.357 6.5 5.2 % 10:00-11:00 0.286 5.2 11:00-12:00 0.249 4.5 4.5 % 0.294 5.4 % 12:00-13:00 5.4 13:00-14:00 0.642 11.7 0.904 16.5 16.5 % 14:00-15:00 0.853 15.6 15:00-16:00 8.2 % 16:00-17:00 0.447 8.2 5.4 % 17:00-18:00 0.296 5.4 6.2 % 18:00-19:00 0.341 6.2 19:00-20:00 20:00-21:00 21:00-22:00 22:00-23:00 23:00-24:00 10 15 11 12 13 14 16 17 18 Percentage

Licence No: 846406

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Friday 19/12/14 Factory Shop Page 1

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL Category : P - FACTORY SHOP

WM WEST MIDLANDS

VEHIČLES

Selected regions and areas:

06 WEST MIDLANDS

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: Gross Floor Area Actual Range: 750 to 750 (units: sqm) Range Selected by User: 92 to 750 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/06 to 22/10/10

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:

Friday 1 days

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

Selected survey types:

Manual count 1 days
Directional ATC Count 0 days

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

Selected Locations:

Town Centre 1

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

Selected Location Sub Categories:

Commercial Zone 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:

A1 1 days

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

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Friday 19/12/14 Factory Shop Page 2

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

Filtering Stage 3 selection (Cont.):

Population within 1 mile:

25,001 to 50,000 1 days

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

Population within 5 miles:

50,001 to 75,000 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 1 days

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

Petrol filling station:

Included in the survey count 0 days Excluded from count or no filling station 1 days

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

Travel Plan:

No 1 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.

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Friday 19/12/14 Factory Shop Page 3

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

LIST OF SITES relevant to selection parameters

1 WM-01-P-01 FACTORY SHOP WEST MIDLANDS

33 LONG LANE

HALESOWEN Town Centre Commercial Zone

Total Gross Floor Area: 750 sqm

Survey date: FRIDAY 22/10/10 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.

Licence No: 846406

JMP Consultants Ltd.

Bothwell Street

Glasgow

TRIP RATE for Land Use 01 - RETAIL/P - FACTORY SHOP **VEHICLES**

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES	ò		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00	1	750	0.133	1	750	0.667	1	750	0.800
09:00 - 10:00	1	750	0.400	1	750	0.533	1	750	0.933
10:00 - 11:00	1	750	0.533	1	750	0.400	1	750	0.933
11:00 - 12:00	1	750	0.400	1	750	0.400	1	750	0.800
12:00 - 13:00	1	750	0.667	1	750	0.533	1	750	1.200
13:00 - 14:00	1	750	0.400	1	750	0.533	1	750	0.933
14:00 - 15:00	1	750	0.400	1	750	0.400	1	750	0.800
15:00 - 16:00	1	750	0.800	1	750	0.667	1	750	1.467
16:00 - 17:00	1	750	0.267	1	750	0.267	1	750	0.534
17:00 - 18:00	1	750	0.000	1	750	0.267	1	750	0.267
18:00 - 19:00									
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.000			4.667			8.667

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.

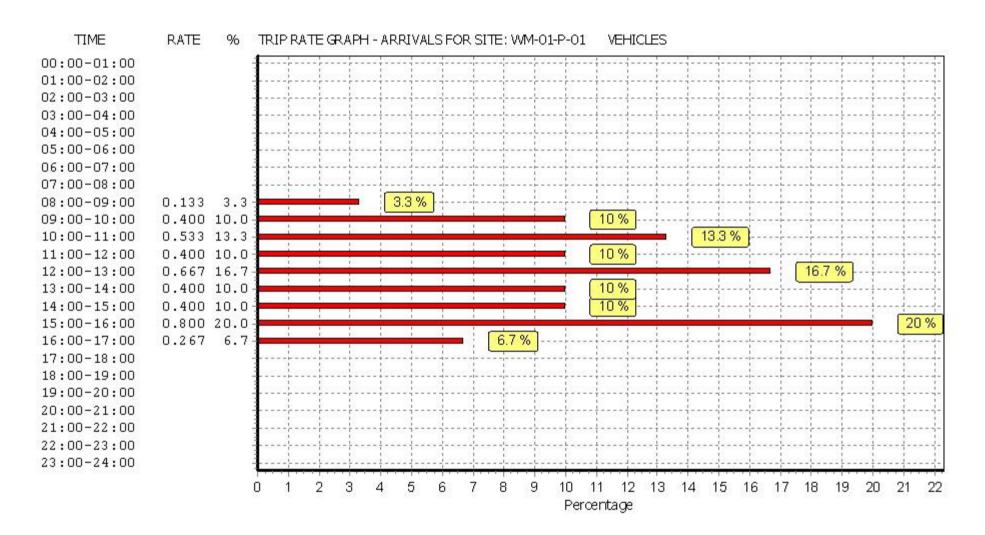
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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

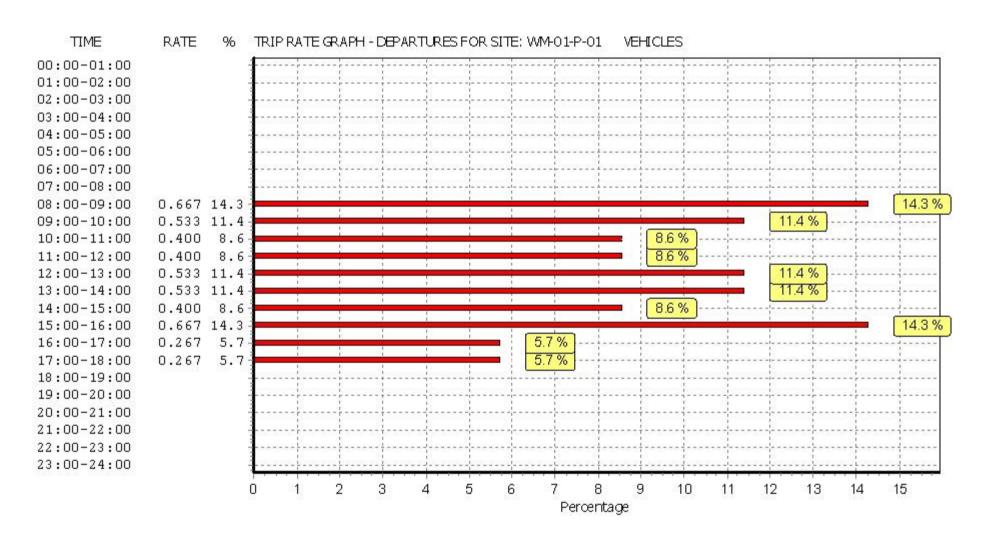
Trip rate parameter range selected: 750 - 750 (units: sqm) Survey date date range: 01/01/06 - 22/10/10

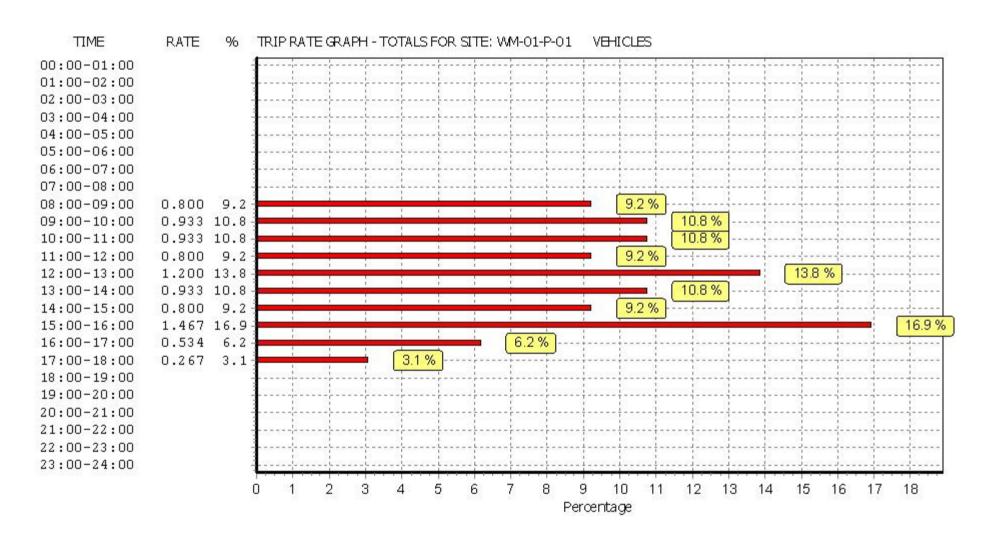
Number of weekdays (Monday-Friday): Number of Saturdays: 0 Number of Sundays: 0 Surveys manually removed from selection: 0

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.



Licence No: 846406





Licence No: 846406

JMP Consultants Ltd. Bothwell Street Glasgow

TRIP RATE for Land Use 01 - RETAIL/P - FACTORY SHOP

TAXIS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES	ò	TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00	1	750	0.000	1	750	0.000	1	750	0.000
09:00 - 10:00	1	750	0.000	1	750	0.000	1	750	0.000
10:00 - 11:00	1	750	0.000	1	750	0.000	1	750	0.000
11:00 - 12:00	1	750	0.000	1	750	0.000	1	750	0.000
12:00 - 13:00	1	750	0.000	1	750	0.000	1	750	0.000
13:00 - 14:00	1	750	0.000	1	750	0.000	1	750	0.000
14:00 - 15:00	1	750	0.000	1	750	0.000	1	750	0.000
15:00 - 16:00	1	750	0.000	1	750	0.000	1	750	0.000
16:00 - 17:00	1	750	0.000	1	750	0.000	1	750	0.000
17:00 - 18:00	1	750	0.000	1	750	0.000	1	750	0.000
18:00 - 19:00									
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.

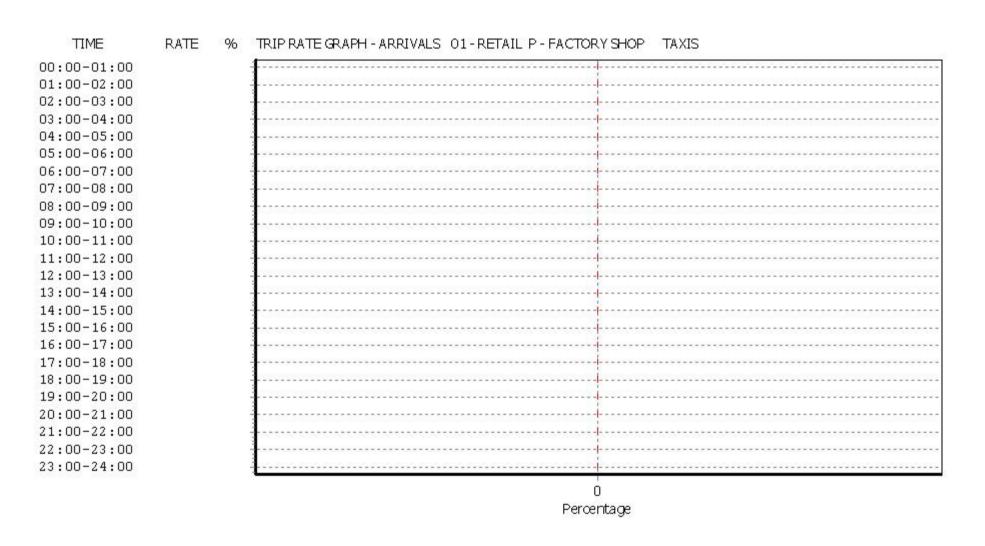
Parameter summary

Trip rate parameter range selected: 750 - 750 (units: sqm) Survey date date range: 01/01/06 - 22/10/10

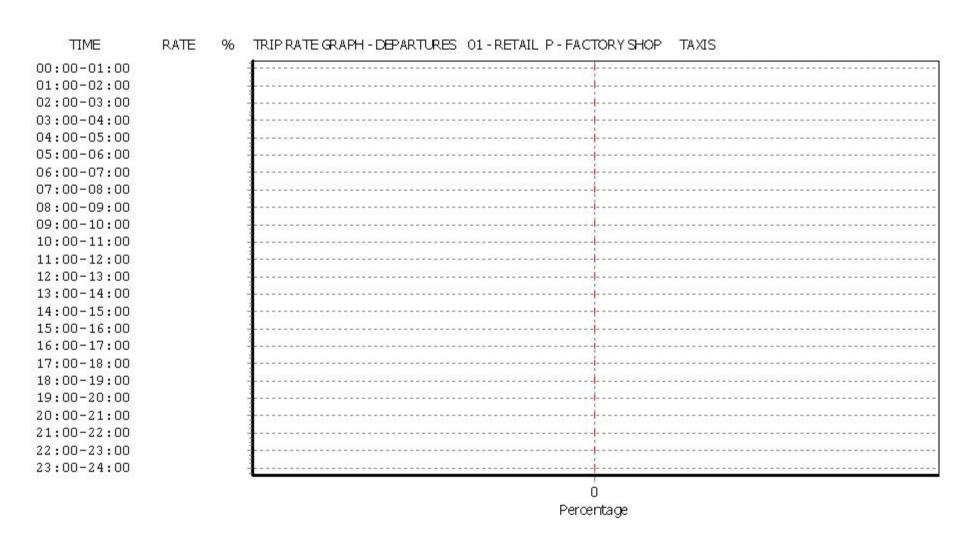
Number of weekdays (Monday-Friday): 1
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0

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.

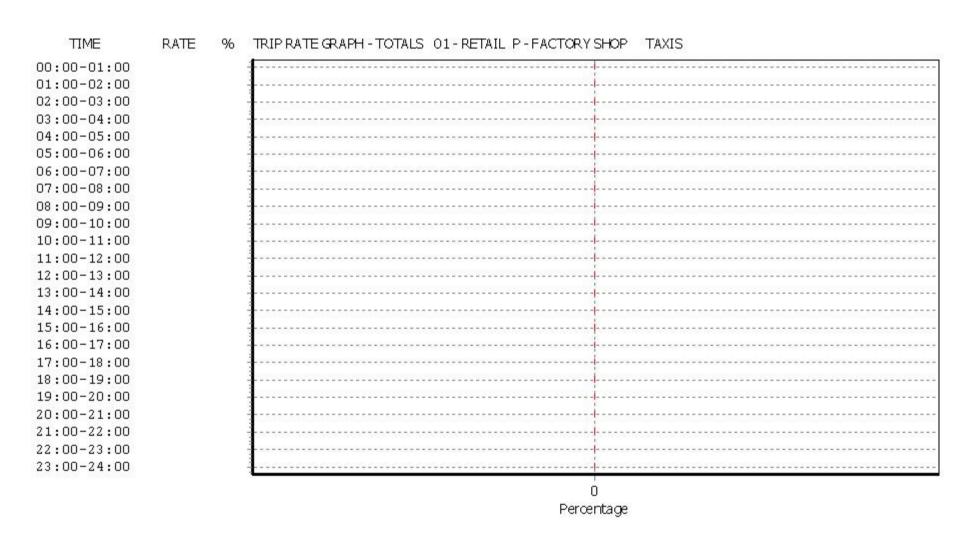
Licence No: 846406



Licence No: 846406



Licence No: 846406



TRIP RATE for Land Use 01 - RETAIL/P - FACTORY SHOP

OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate	
00:00 - 01:00										
01:00 - 02:00										
02:00 - 03:00										
03:00 - 04:00										
04:00 - 05:00										
05:00 - 06:00										
06:00 - 07:00										
07:00 - 08:00										
08:00 - 09:00	1	750	0.000	1	750	0.000	1	750	0.000	
09:00 - 10:00	1	750	0.000	1	750	0.000	1	750	0.000	
10:00 - 11:00	1	750	0.000	1	750	0.000	1	750	0.000	
11:00 - 12:00	1	750	0.000	1	750	0.000	1	750	0.000	
12:00 - 13:00	1	750	0.000	1	750	0.000	1	750	0.000	
13:00 - 14:00	1	750	0.000	1	750	0.000	1	750	0.000	
14:00 - 15:00	1	750	0.000	1	750	0.000	1	750	0.000	
15:00 - 16:00	1	750	0.000	1	750	0.000	1	750	0.000	
16:00 - 17:00	1	750	0.000	1	750	0.000	1	750	0.000	
17:00 - 18:00	1	750	0.000	1	750	0.000	1	750	0.000	
18:00 - 19:00										
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.

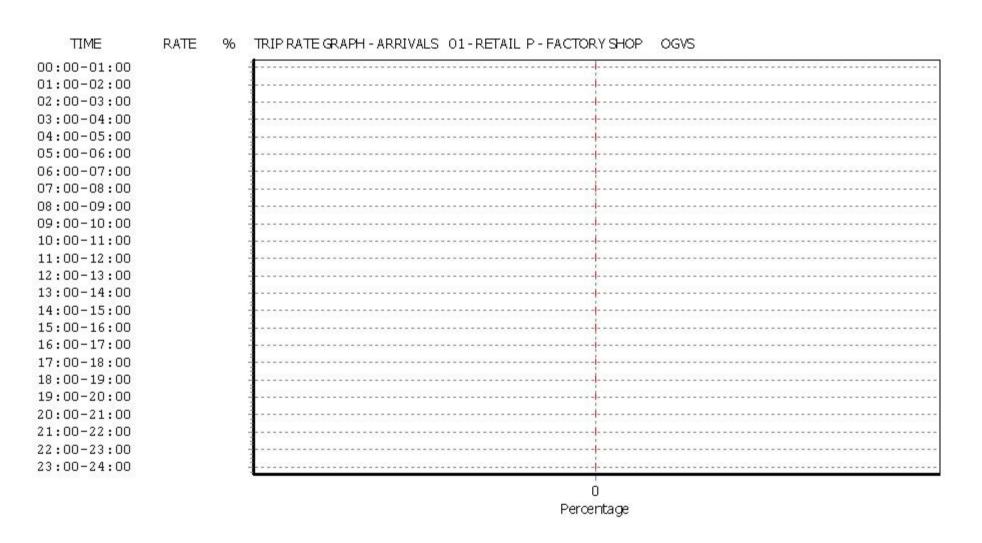
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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

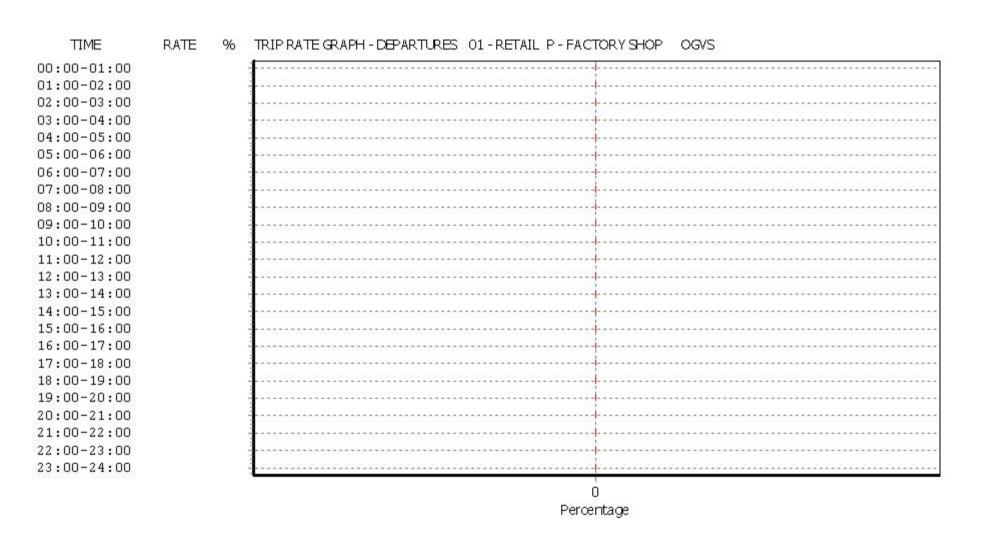
Parameter summary

Trip rate parameter range selected: 750 - 750 (units: sqm) Survey date date range: 01/01/06 - 22/10/10

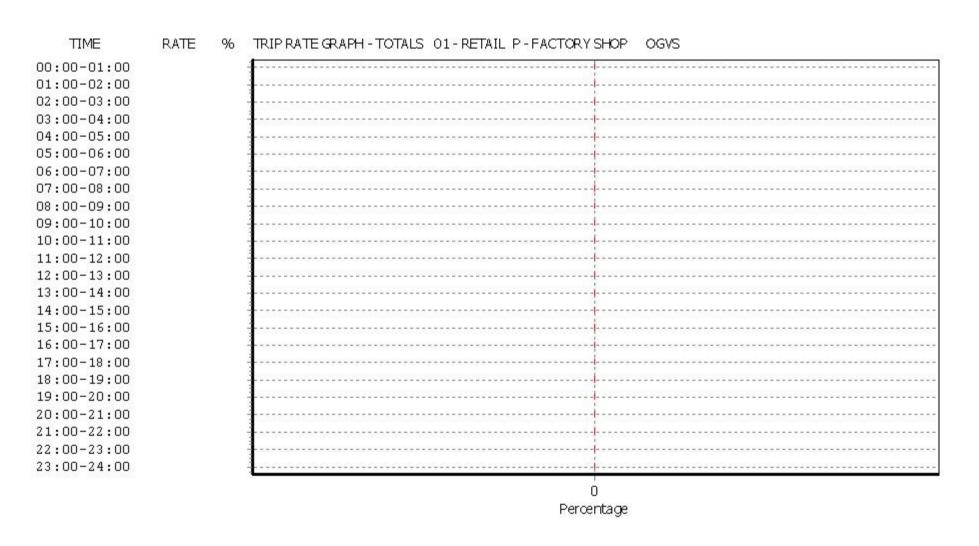
Number of weekdays (Monday-Friday): 1
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0

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.





Licence No: 846406



TRIP RATE for Land Use 01 - RETAIL/P - FACTORY SHOP

PSVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			[DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip	
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate	
00:00 - 01:00										
01:00 - 02:00										
02:00 - 03:00										
03:00 - 04:00										
04:00 - 05:00										
05:00 - 06:00										
06:00 - 07:00										
07:00 - 08:00										
08:00 - 09:00	1	750	0.000	1	750	0.000	1	750	0.000	
09:00 - 10:00	1	750	0.000	1	750	0.000	1	750	0.000	
10:00 - 11:00	1	750	0.000	1	750	0.000	1	750	0.000	
11:00 - 12:00	1	750	0.000	1	750	0.000	1	750	0.000	
12:00 - 13:00	1	750	0.000	1	750	0.000	1	750	0.000	
13:00 - 14:00	1	750	0.000	1	750	0.000	1	750	0.000	
14:00 - 15:00	1	750	0.000	1	750	0.000	1	750	0.000	
15:00 - 16:00	1	750	0.000	1	750	0.000	1	750	0.000	
16:00 - 17:00	1	750	0.000	1	750	0.000	1	750	0.000	
17:00 - 18:00	1	750	0.000	1	750	0.000	1	750	0.000	
18:00 - 19:00										
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.

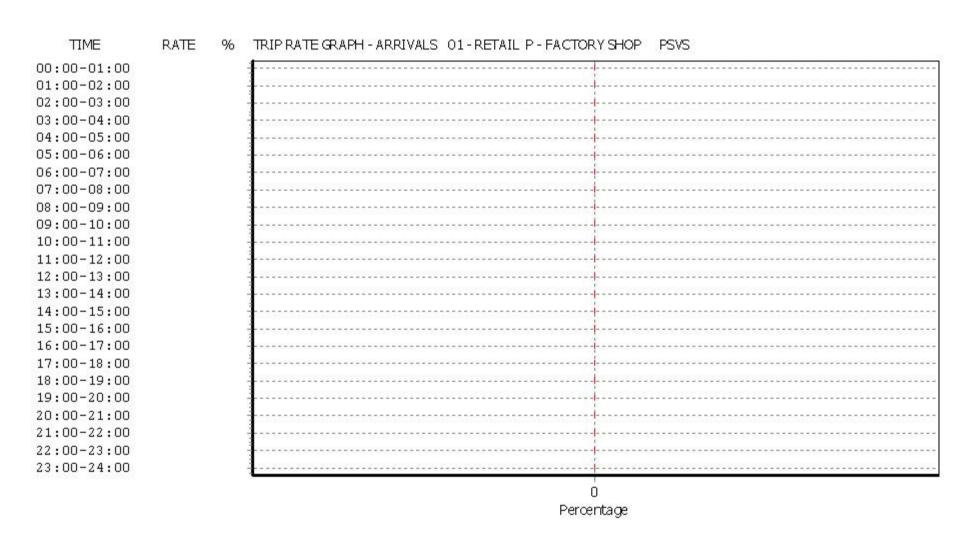
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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

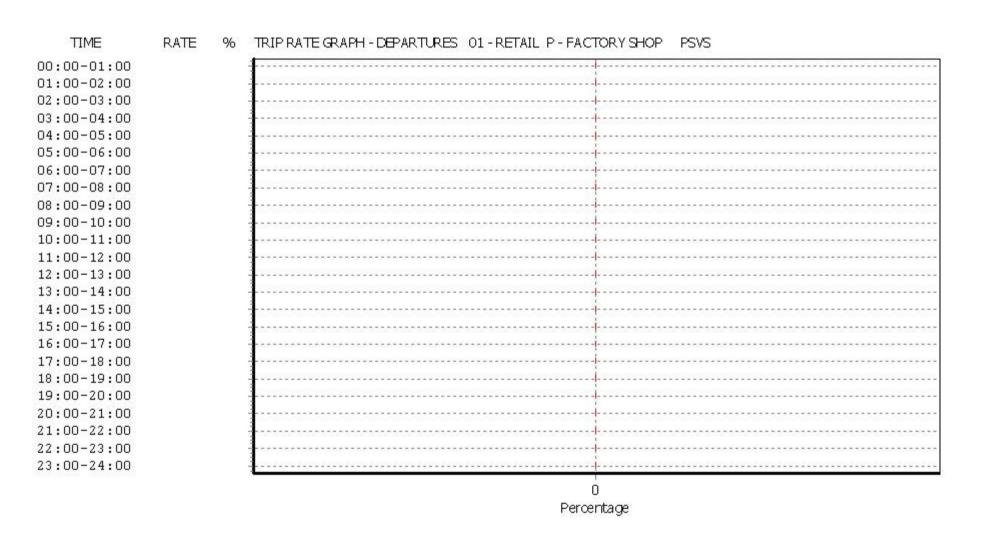
Parameter summary

Trip rate parameter range selected: 750 - 750 (units: sqm) Survey date date range: 01/01/06 - 22/10/10

Number of weekdays (Monday-Friday): 1
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.





JMP Consultants Ltd. Bothwell Street Glasgow

TIME RATE TRIP RATE GRAPH - TOTALS 01 - RETAIL P - FACTORY SHOP **PSVS** 00:00-01:00 01:00-02:00 02:00-03:00 03:00-04:00 04:00-05:00 05:00-06:00 06:00-07:00 07:00-08:00 08:00-09:00 09:00-10:00 10:00-11:00 11:00-12:00 12:00-13:00 13:00-14:00 14:00-15:00 15:00-16:00 16:00-17:00 17:00-18:00 18:00-19:00 19:00-20:00 20:00-21:00 21:00-22:00 22:00-23:00 23:00-24:00

Percentage

Licence No: 846406

TRIP RATE for Land Use 01 - RETAIL/P - FACTORY SHOP

CYCLISTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00	1	750	0.000	1	750	0.000	1	750	0.000
09:00 - 10:00	1	750	0.000	1	750	0.000	1	750	0.000
10:00 - 11:00	1	750	0.000	1	750	0.000	1	750	0.000
11:00 - 12:00	1	750	0.000	1	750	0.000	1	750	0.000
12:00 - 13:00	1	750	0.000	1	750	0.000	1	750	0.000
13:00 - 14:00	1	750	0.000	1	750	0.000	1	750	0.000
14:00 - 15:00	1	750	0.000	1	750	0.000	1	750	0.000
15:00 - 16:00	1	750	0.000	1	750	0.000	1	750	0.000
16:00 - 17:00	1	750	0.000	1	750	0.000	1	750	0.000
17:00 - 18:00	1	750	0.000	1	750	0.000	1	750	0.000
18:00 - 19:00									
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.

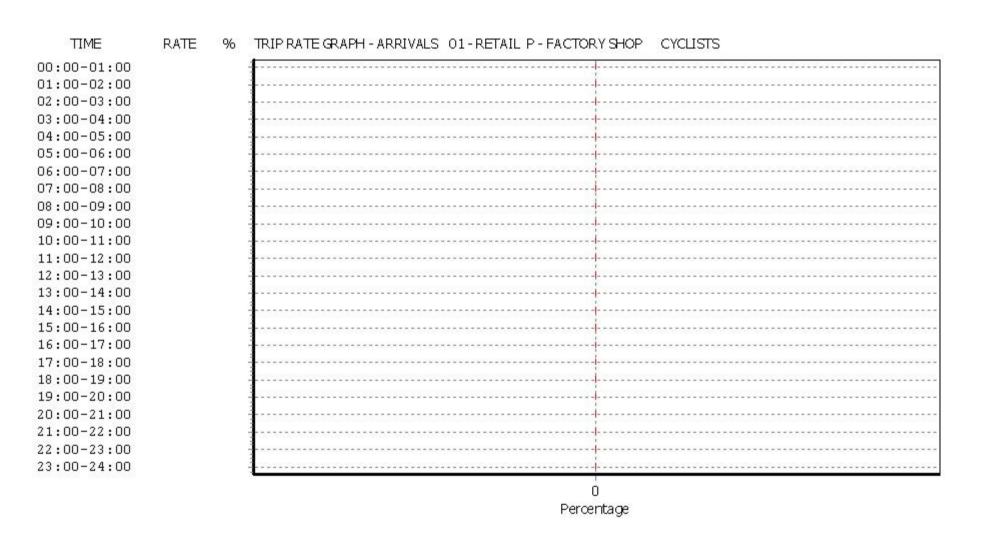
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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: 750 - 750 (units: sqm) Survey date date range: 01/01/06 - 22/10/10

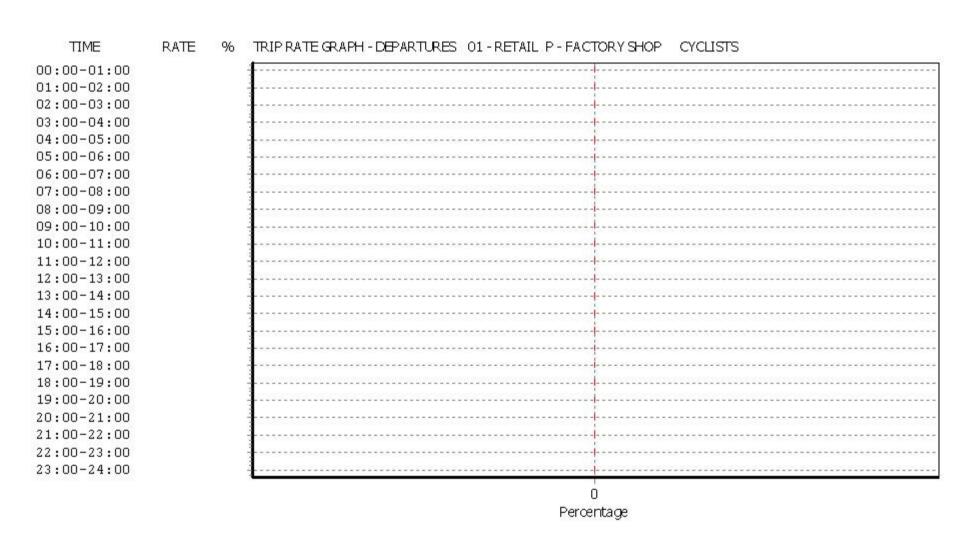
Number of weekdays (Monday-Friday): 1
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0

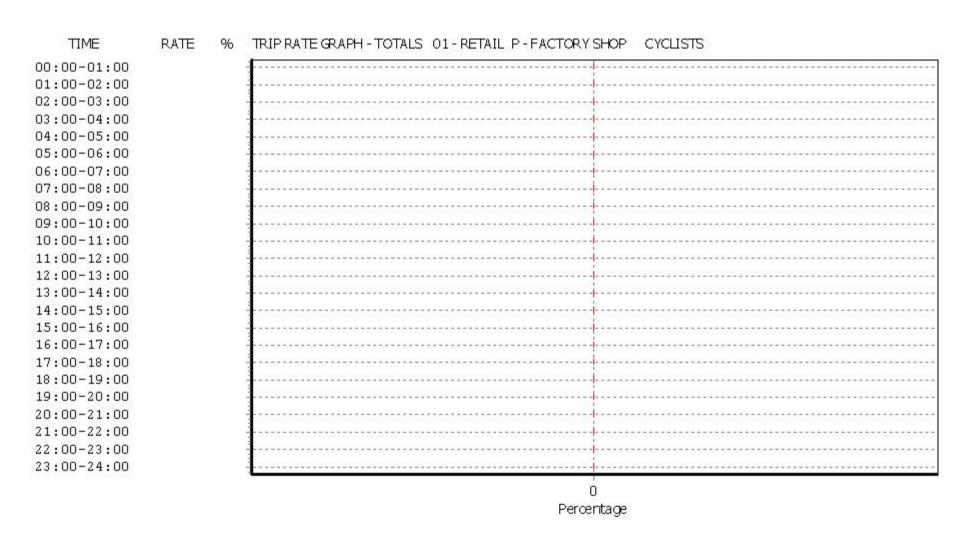
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected 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.



JMP Consultants Ltd. Bothwell Street Glasgow

Licence No: 846406





JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT

Category : G - PARCEL DISTRIBUTION CENTRES

MULTI-MODAL VEHICLES

Selected regions and areas:

04 EAST ANGLIA

NF NORFOLK 1 days

14 LEINSTER

WT WESTMEATH 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: Gross floor area

Actual Range: 1600 to 6482 (units: sqm) Range Selected by User: 1600 to 22679 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/06 to 30/11/12

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:

Thursday 1 days Friday 1 days

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

Selected survey types:

Manual count 2 days
Directional ATC Count 0 days

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

Selected Locations:

Edge of Town Centre 1
Edge of Town 1

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

Selected Location Sub Categories:

Industrial Zone 1
Commercial Zone 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.

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

Filtering Stage 3 selection:

Use Class:

B8 2 days

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

Population within 1 mile:

1,001 to 5,000 1 days 25,001 to 50,000 1 days

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

Population within 5 miles:

5,001 to 25,000 1 days 125,001 to 250,000 1 days

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

Car ownership within 5 miles:

 0.5 or Less
 1 days

 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 2 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.

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

LIST OF SITES relevant to selection parameters

1 NF-02-G-01 PARCELFORCE NORFOLK

BARKER STREET

NORWICH

Edge of Town Centre Commercial Zone

Total Gross floor area: 1600 sqm

Survey date: THURSDAY 25/10/12 Survey Type: MANUAL

2 WT-02-G-01 DISTRIBUTION CENTRE WESTMEATH

DUBLIN ROAD

ATHLONE Edge of Town Industrial Zone

Total Gross floor area: 6482 sqm

Survey date: FRIDAY 30/11/12 Survey Type: MANUAL

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

TRIP RATE for Land Use 02 - EMPLOYMENT/G - PARCEL DISTRIBUTION CENTRES

MULTI-MODAL VEHICLES Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS				DEPARTURES		TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 00:30				-					
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	6482	0.015	1	6482	0.123	1	6482	0.138
05:30 - 06:00	1	6482	0.031	1	6482	0.031	1	6482	0.062
06:00 - 06:30	2	4041	0.136	2	4041	0.062	2	4041	0.198
06:30 - 07:00	2	4041	0.198	2	4041	0.087	2	4041	0.285
07:00 - 07:30	2	4041	0.173	2	4041	0.148	2	4041	0.321
07:30 - 08:00	2	4041	0.210	2	4041	0.309	2	4041	0.519
08:00 - 08:30	2	4041	0.136	2	4041	0.136	2	4041	0.272
08:30 - 09:00	2	4041	0.135	2	4041	0.074	2	4041	0.309
09:00 - 09:30	2	4041	0.233	2	4041	0.074	2	4041	0.433
09:30 - 10:00	2	4041	0.322	2	4041	0.099	2	4041	0.433
10:00 - 10:30	2	4041	0.148	2	4041	0.037	2	4041	0.247
10:30 - 11:00	2	4041	0.049	2	4041	0.025	2	4041	0.074
11:00 - 11:30	2	4041	0.074	2	4041	0.023	2	4041	0.074
11:30 - 12:00	2	4041	0.074	2	4041	0.049	2	4041	0.086
12:00 - 12:30	2	4041	0.037	2	4041	0.047	2	4041	0.247
12:30 - 13:00	2	4041	0.130	2	4041	0.111	2	4041	0.334
13:00 - 13:30	2	4041	0.049	2	4041	0.203	2	4041	0.334
13:30 - 14:00	2	4041	0.148	2	4041	0.148	2	4041	0.260
14:00 - 14:30	2	4041	0.173	2	4041	0.007	2	4041	0.260
14:30 - 15:00	2	4041	0.101	2	4041	0.049	2	4041	0.200
15:00 - 15:30	2	4041	0.148	2	4041	0.049	2	4041	0.197
15:30 - 16:00	2	4041	0.111	2	4041	0.067	2	4041	0.198
16:00 - 16:30	2	4041	0.148	2	4041	0.002	2	4041	0.260
16:30 - 17:00	2	4041	0.186	2	4041	0.077	2	4041	0.421
17:00 - 17:30	2	4041	0.180	2	4041	0.233	2	4041	0.421
17:30 - 17:30			0.247		4041	0.359	2		0.606
18:00 - 18:30	2 2	4041 4041	0.161	2	4041	0.396	2	4041 4041	0.557
18:30 - 19:00	2	4041	0.087	2	4041	0.198	2	4041	0.285
19:00 - 19:30									
	2	4041 4041	0.173 0.421	2	4041 4041	0.074	2	4041	0.247
19:30 - 20:00								4041	0.508
20:00 - 20:30 20:30 - 21:00	2	4041	0.049	2	4041	0.012	2	4041	0.061
	2	4041		2	4041	0.062	2	4041	0.149
21:00 - 21:30	1	6482	0.123	1	6482	0.046	1 1	6482	0.169
21:30 - 22:00	1	6482	0.031	1	6482	0.062		6482	0.093
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00			4 707			4.007			0.004
Total Rates:			4.737			4.097			8.834

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.

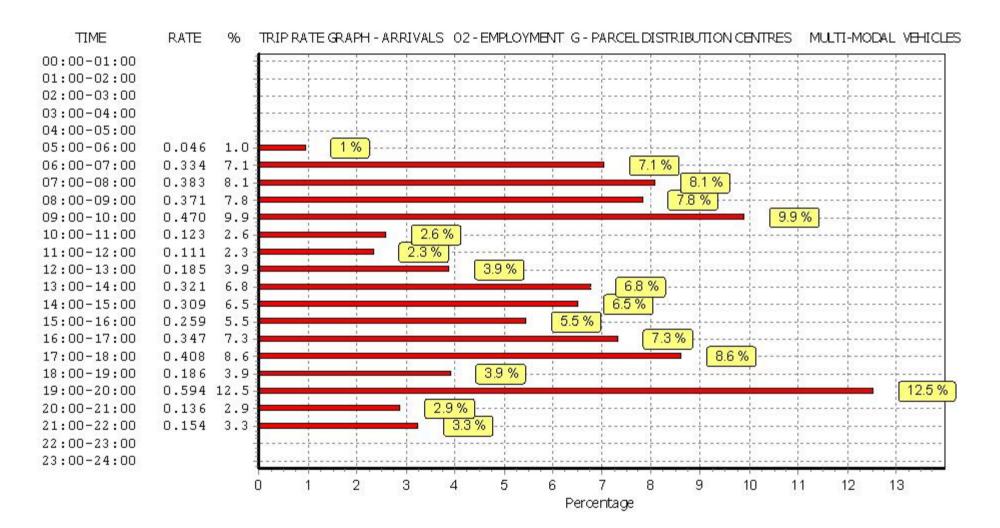
JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

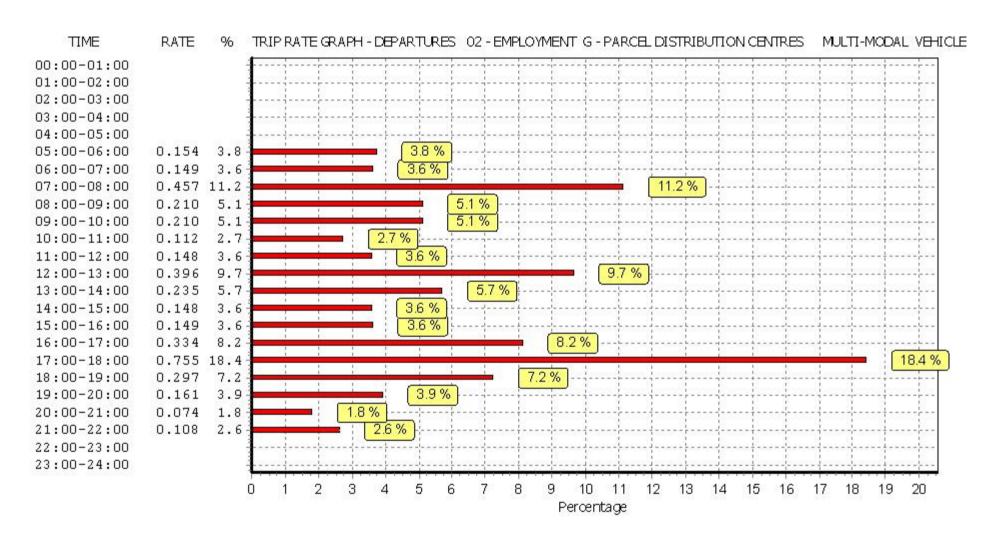
Parameter summary

Trip rate parameter range selected: 1600 - 6482 (units: sqm) Survey date date range: 01/01/06 - 30/11/12

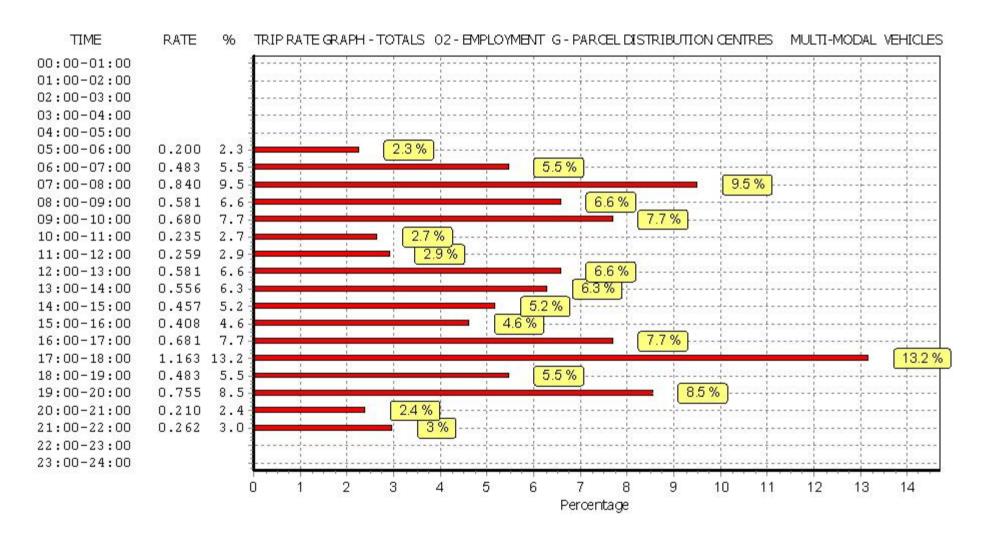
Number of weekdays (Monday-Friday):2Number of Saturdays:0Number of Sundays:0Surveys manually removed from selection:0

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.





sgow Licence No: 846406



TRIP RATE for Land Use 02 - EMPLOYMENT/G - PARCEL DISTRIBUTION CENTRES

MULTI-MODAL TAXIS
Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS				DEPARTURES		TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 00:30	,			-			1		
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	6482	0.000	1	6482	0.000	1	6482	0.000
05:30 - 06:00	1	6482	0.000	1	6482	0.000	1	6482	0.000
06:00 - 06:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
06:30 - 07:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
07:00 - 07:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
07:30 - 08:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
08:00 - 08:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
08:30 - 09:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
09:00 - 09:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
09:30 - 10:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
10:00 - 10:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
10:30 - 11:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
11:00 - 11:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
11:30 - 12:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
12:00 - 12:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
12:30 - 13:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
13:00 - 13:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
13:30 - 14:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
14:00 - 14:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
14:30 - 15:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
15:00 - 15:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
15:30 - 16:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
16:00 - 16:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
16:30 - 17:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
17:00 - 17:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
17:30 - 17:30		4041	0.000		4041	0.000	2	4041	0.000
18:00 - 18:30	2 2	4041	0.000	2	4041	0.000	2	4041	0.000
18:30 - 19:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
19:00 - 19:30									
	2	4041	0.000	2	4041 4041	0.000	2	4041	0.000
19:30 - 20:00 20:00 - 20:30		4041	0.000					4041	
	2	4041		2	4041	0.000	2	4041	0.000
20:30 - 21:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
21:00 - 21:30	1	6482	0.000	1	6482		1	6482	0.000
21:30 - 22:00	1	6482	0.000	1	6482	0.000	I	6482	0.000
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00			0.000			0.000			0.000
Total Rates:			0.000			0.000			0.000

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

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

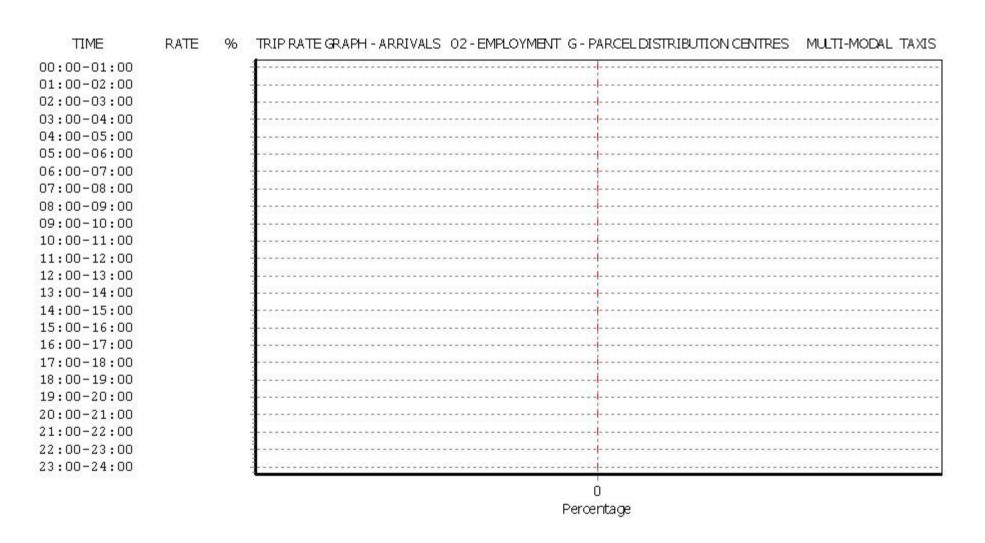
JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

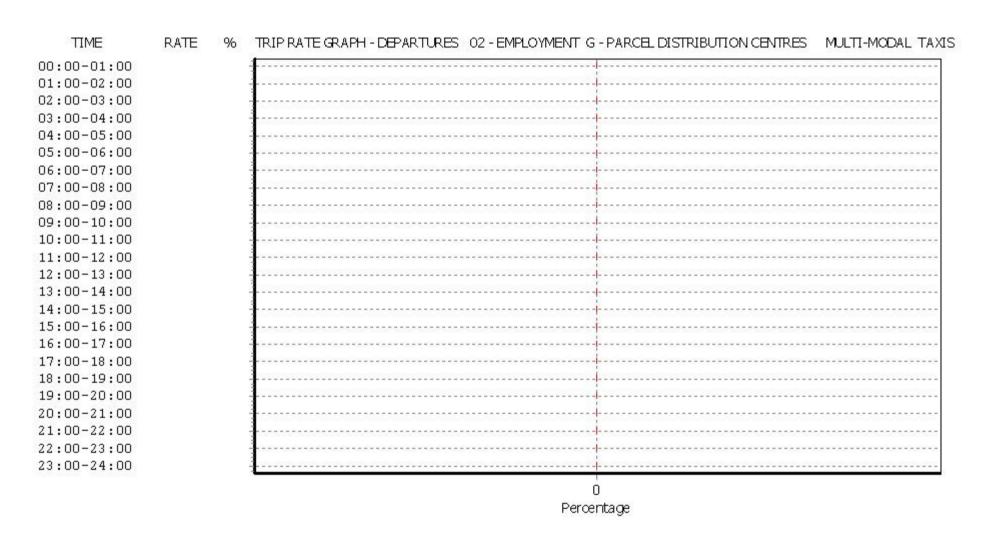
Parameter summary

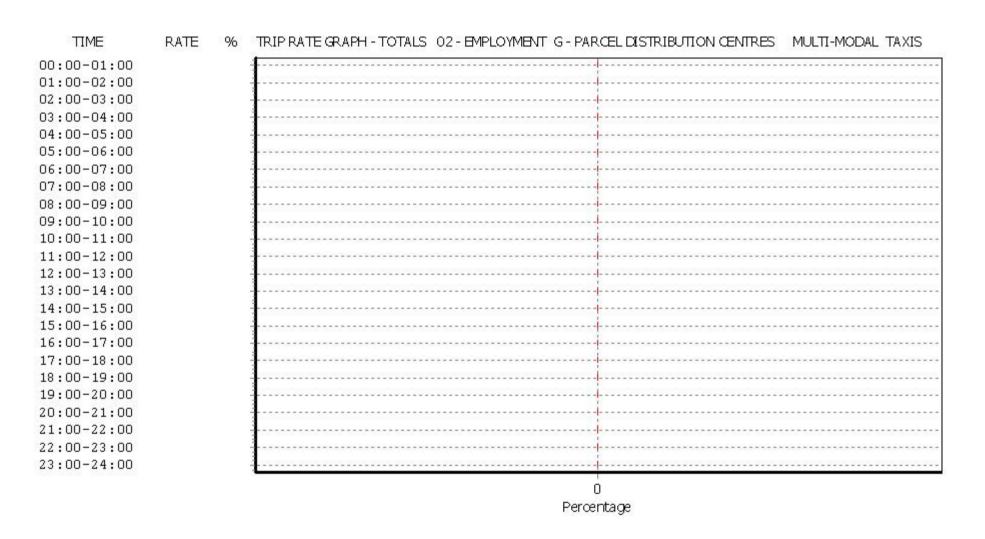
Trip rate parameter range selected: 1600 - 6482 (units: sqm) Survey date date range: 01/01/06 - 30/11/12

Number of weekdays (Monday-Friday):2Number of Saturdays:0Number of Sundays:0Surveys 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.







TRIP RATE for Land Use 02 - EMPLOYMENT/G - PARCEL DISTRIBUTION CENTRES

MULTI-MODAL OGVS Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			[DEPARTURES	5	TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 00:30							•		
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	6482	0.000	1	6482	0.031	1	6482	0.031
05:30 - 06:00	1	6482	0.000	1	6482	0.000	1	6482	0.000
06:00 - 06:30	2	4041	0.012	2	4041	0.012	2	4041	0.024
06:30 - 07:00	2	4041	0.025	2	4041	0.025	2	4041	0.050
07:00 - 07:30	2	4041	0.012	2	4041	0.025	2	4041	0.037
07:30 - 08:00	2	4041	0.012	2	4041	0.012	2	4041	0.024
08:00 - 08:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
08:30 - 09:00	2	4041	0.012	2	4041	0.000	2	4041	0.012
09:00 - 09:30	2	4041	0.012	2	4041	0.025	2	4041	0.037
09:30 - 10:00	2	4041	0.025	2	4041	0.012	2	4041	0.037
10:00 - 10:30	2	4041	0.012	2	4041	0.012	2	4041	0.024
10:30 - 11:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
11:00 - 11:30	2	4041	0.012	2	4041	0.025	2	4041	0.037
11:30 - 12:00	2	4041	0.000	2	4041	0.012	2	4041	0.012
12:00 - 12:30	2	4041	0.012	2	4041	0.000	2	4041	0.012
12:30 - 13:00	2	4041	0.012	2	4041	0.012	2	4041	0.012
13:00 - 13:30	2	4041	0.012	2	4041	0.012	2	4041	0.024
13:30 - 14:00	2	4041	0.025	2	4041	0.000	2	4041	0.037
14:00 - 14:30	2	4041	0.023	2	4041	0.000	2	4041	0.023
14:30 - 15:00	2	4041	0.000	2	4041	0.012	2	4041	0.024
15:00 - 15:30	2	4041	0.000	2	4041	0.025	2	4041	0.025
15:30 - 16:00	2	4041	0.025	2	4041	0.023	2	4041	0.023
16:00 - 16:30	2	4041	0.023	2	4041	0.000	2	4041	0.037
16:30 - 17:00	2	4041	0.012	2	4041	0.025	2	4041	0.012
17:00 - 17:30	2	4041	0.000	2	4041	0.023	2	4041	0.037
17:30 - 17:30	2	4041	0.000	2	4041	0.012	2	4041	0.012
18:00 - 18:30	2	4041	0.012	2	4041	0.000	2	4041	0.012
18:30 - 19:00	2	4041	0.000	2	4041	0.012	2	4041	0.012
19:00 - 19:30	2	4041	0.012	2	4041	0.000	2	4041	0.024
19:30 - 20:00	2	4041	0.037	2	4041	0.000	2	4041	0.037
20:00 - 20:30	2	4041	0.037	2	4041	0.037	2	4041	0.024
20:30 - 21:00	2	4041	0.012	2	4041	0.012	2	4041	0.024
21:00 - 21:30	1	6482	0.047	1	6482	0.023	1	6482	0.074
21:30 - 22:00	1	6482	0.002	1	6482	0.000	1	6482	0.002
22:00 - 22:30		0402	0.013		0402	0.013	- '	0402	0.030
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.505			0.439			0.944
TULAI RALES.			0.505			0.439			0.944

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.

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

Parameter summary

Trip rate parameter range selected: 1600 - 6482 (units: sqm) Survey date date range: 01/01/06 - 30/11/12

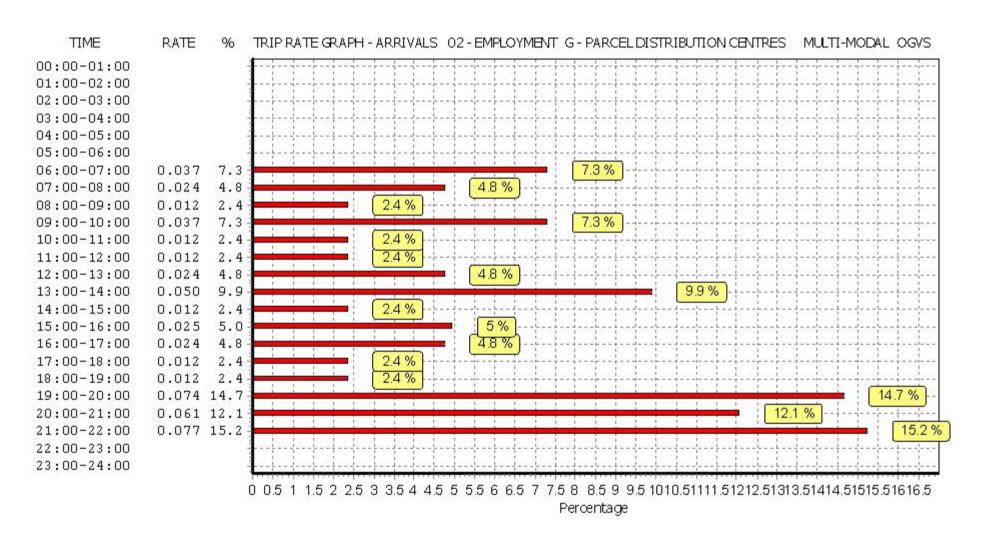
Number of weekdays (Monday-Friday):2Number of Saturdays:0Number of Sundays:0Surveys manually removed from selection:0

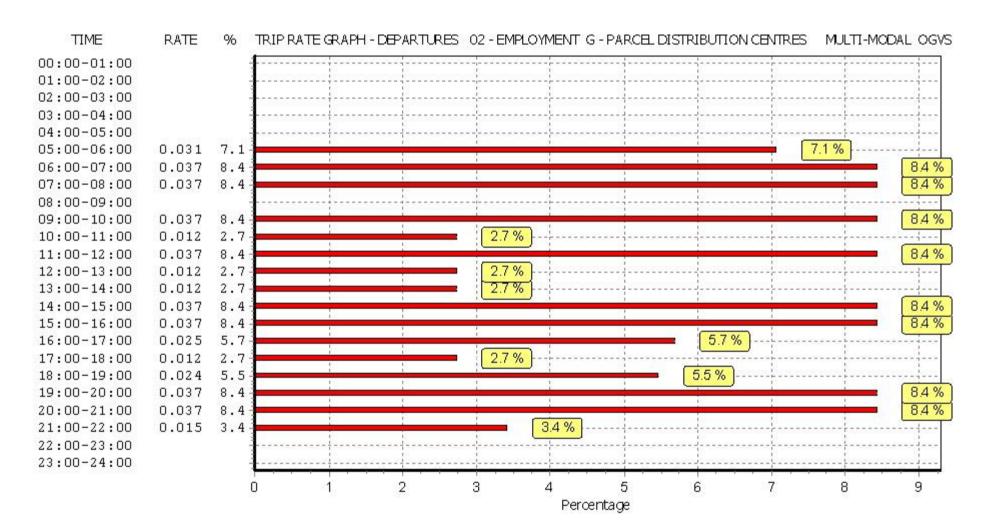
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected 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.

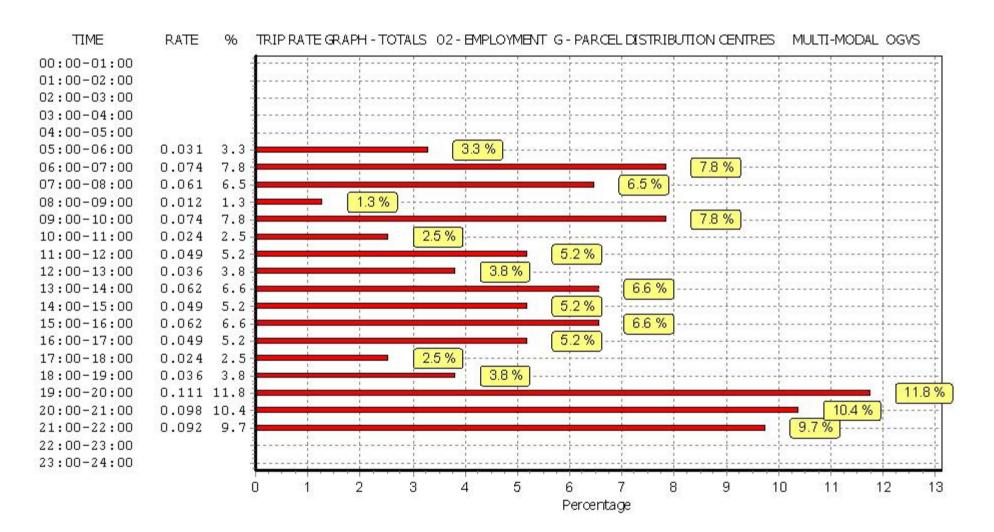
JMP Consultants Ltd. Bothwell Street Glasgow

Distribution Centre

Licence No: 846406







TRIP RATE for Land Use 02 - EMPLOYMENT/G - PARCEL DISTRIBUTION CENTRES

MULTI-MODAL PSVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS				DEPARTURES		TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 00:30	,			-			1		
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	6482	0.000	1	6482	0.000	1	6482	0.000
05:30 - 06:00	1	6482	0.000	1	6482	0.000	1	6482	0.000
06:00 - 06:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
06:30 - 07:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
07:00 - 07:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
07:30 - 08:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
08:00 - 08:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
08:30 - 09:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
09:00 - 09:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
09:30 - 10:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
10:00 - 10:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
10:30 - 11:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
11:00 - 11:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
11:30 - 12:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
12:00 - 12:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
12:30 - 13:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
13:00 - 13:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
13:30 - 14:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
14:00 - 14:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
14:30 - 15:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
15:00 - 15:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
15:30 - 16:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
16:00 - 16:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
16:30 - 17:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
17:00 - 17:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
17:30 - 17:30		4041	0.000		4041	0.000	2	4041	0.000
18:00 - 18:30	2 2	4041	0.000	2	4041	0.000	2	4041	0.000
18:30 - 19:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
19:00 - 19:30									
	2	4041	0.000	2	4041 4041	0.000	2	4041	0.000
19:30 - 20:00 20:00 - 20:30		4041	0.000					4041	
	2	4041		2	4041	0.000	2	4041	0.000
20:30 - 21:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
21:00 - 21:30	1	6482	0.000	1	6482		1	6482	0.000
21:30 - 22:00	1	6482	0.000	1	6482	0.000	I	6482	0.000
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00			0.000			0.000			0.000
Total Rates:			0.000			0.000			0.000

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

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

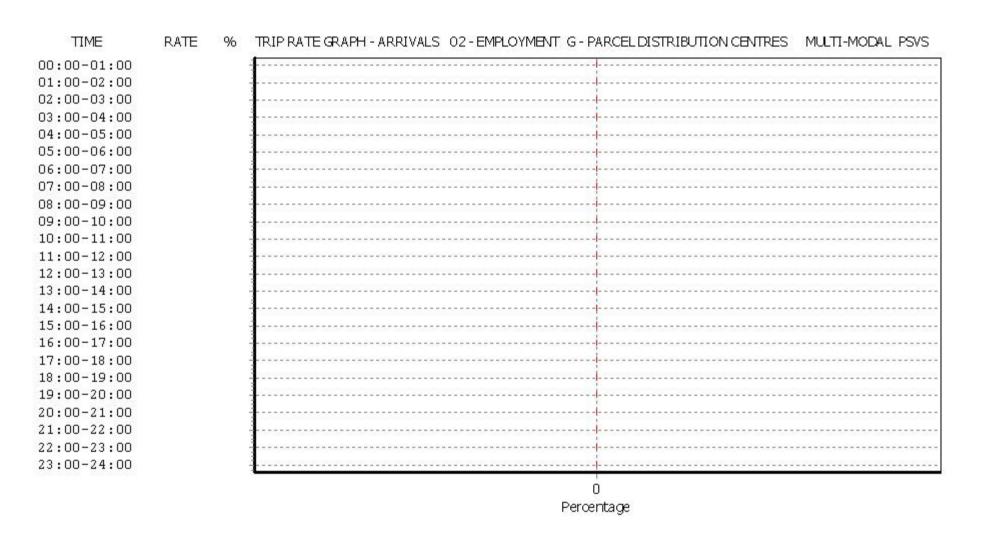
JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

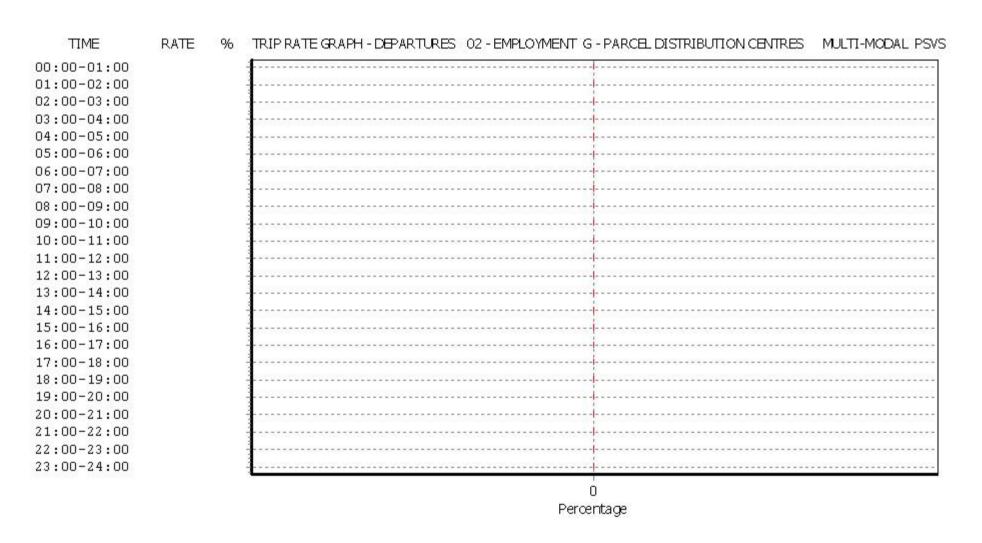
Parameter summary

Trip rate parameter range selected: 1600 - 6482 (units: sqm) Survey date date range: 01/01/06 - 30/11/12

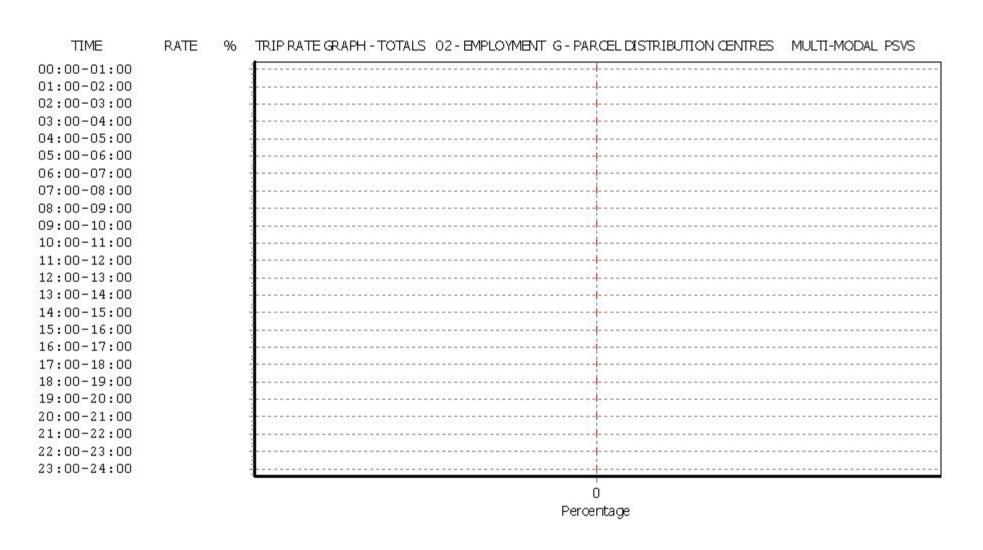
Number of weekdays (Monday-Friday):2Number of Saturdays:0Number of Sundays:0Surveys manually removed from selection:0

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.





Licence No: 846406



TRIP RATE for Land Use 02 - EMPLOYMENT/G - PARCEL DISTRIBUTION CENTRES

MULTI-MODAL CYCLISTS
Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			[DEPARTURES		TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 00:30	-			-			,		
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	6482	0.000	1	6482	0.000	1	6482	0.000
05:30 - 06:00	1	6482	0.000	1	6482	0.000	1	6482	0.000
06:00 - 06:30	2	4041	0.025	2	4041	0.000	2	4041	0.025
06:30 - 07:00	2	4041	0.037	2	4041	0.000	2	4041	0.037
07:00 - 07:30	2	4041	0.000	2	4041	0.012	2	4041	0.012
07:30 - 08:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
08:00 - 08:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
08:30 - 09:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
09:00 - 09:30	2	4041	0.012	2	4041	0.000	2	4041	0.012
09:30 - 10:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
10:00 - 10:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
10:30 - 11:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
11:00 - 11:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
11:30 - 12:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
12:00 - 12:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
12:30 - 13:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
13:00 - 13:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
13:30 - 14:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
14:00 - 14:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
14:30 - 15:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
15:00 - 15:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
15:30 - 16:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
16:00 - 16:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
16:30 - 17:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
17:00 - 17:30	2	4041	0.000	2	4041	0.037	2	4041	0.037
17:30 - 18:00	2	4041	0.000	2	4041	0.012	2	4041	0.012
18:00 - 18:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
18:30 - 19:00	2	4041	0.000	2	4041	0.012	2	4041	0.012
19:00 - 19:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
19:30 - 20:00	2	4041	0.012	2	4041	0.000	2	4041	0.012
20:00 - 20:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
20:30 - 21:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
21:00 - 21:30	1	6482	0.000	1	6482	0.000	1	6482	0.000
21:30 - 22:00	1	6482	0.000	1	6482	0.000	1	6482	0.000
22:00 - 22:30	1	6482	0.000	1	6482	0.000	1	6482	0.000
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.086			0.073			0.159

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.

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

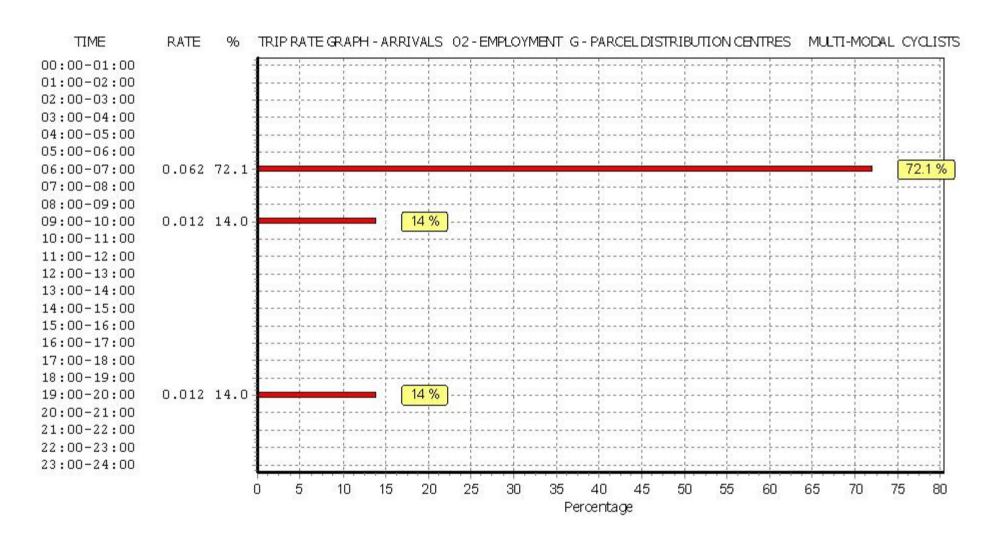
Parameter summary

Trip rate parameter range selected: 1600 - 6482 (units: sqm) Survey date date range: 01/01/06 - 30/11/12

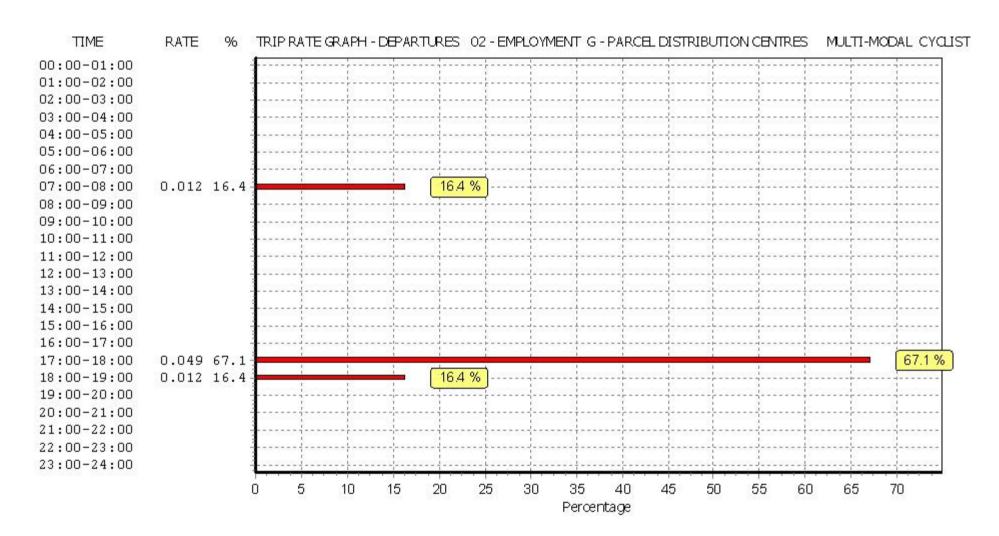
Number of weekdays (Monday-Friday):2Number of Saturdays:0Number of Sundays:0Surveys manually removed from selection:0

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.

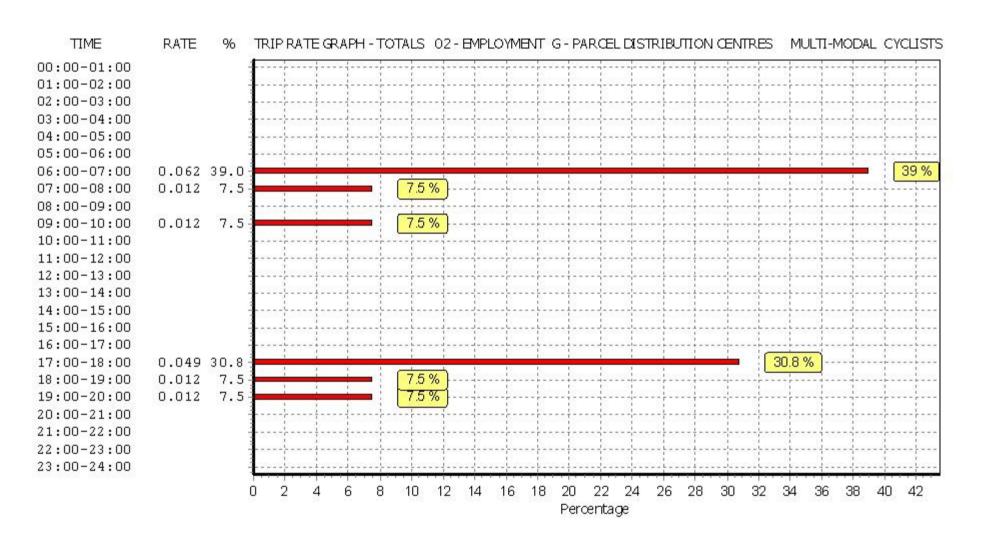
Licence No: 846406



Licence No: 846406



Licence No: 846406



TRIP RATE for Land Use 02 - EMPLOYMENT/G - PARCEL DISTRIBUTION CENTRES MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			[DEPARTURES		TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 00:30	-						•		
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	6482	0.015	1	6482	0.123	1	6482	0.138
05:30 - 06:00	1	6482	0.031	1	6482	0.031	1	6482	0.062
06:00 - 06:30	2	4041	0.136	2	4041	0.074	2	4041	0.210
06:30 - 07:00	2	4041	0.210	2	4041	0.087	2	4041	0.297
07:00 - 07:30	2	4041	0.173	2	4041	0.148	2	4041	0.321
07:30 - 08:00	2	4041	0.223	2	4041	0.322	2	4041	0.545
08:00 - 08:30	2	4041	0.136	2	4041	0.136	2	4041	0.272
08:30 - 09:00	2	4041	0.247	2	4041	0.087	2	4041	0.334
09:00 - 09:30	2	4041	0.346	2	4041	0.124	2	4041	0.470
09:30 - 10:00	2	4041	0.186	2	4041	0.124	2	4041	0.310
10:00 - 10:30	2	4041	0.087	2	4041	0.087	2	4041	0.174
10:30 - 11:00	2	4041	0.049	2	4041	0.025	2	4041	0.074
11:00 - 11:30	2	4041	0.074	2	4041	0.099	2	4041	0.173
11:30 - 12:00	2	4041	0.037	2	4041	0.049	2	4041	0.086
12:00 - 12:30	2	4041	0.148	2	4041	0.111	2	4041	0.259
12:30 - 13:00	2	4041	0.049	2	4041	0.359	2	4041	0.408
13:00 - 13:30	2	4041	0.161	2	4041	0.161	2	4041	0.322
13:30 - 14:00	2	4041	0.210	2	4041	0.099	2	4041	0.309
14:00 - 14:30	2	4041	0.161	2	4041	0.111	2	4041	0.272
14:30 - 15:00	2	4041	0.173	2	4041	0.049	2	4041	0.222
15:00 - 15:30	2	4041	0.124	2	4041	0.099	2	4041	0.223
15:30 - 16:00	2	4041	0.173	2	4041	0.074	2	4041	0.247
16:00 - 16:30	2	4041	0.161	2	4041	0.111	2	4041	0.272
16:30 - 17:00	2	4041	0.198	2	4041	0.235	2	4041	0.433
17:00 - 17:30	2	4041	0.247	2	4041	0.396	2	4041	0.643
17:30 - 18:00	2	4041	0.186	2	4041	0.421	2	4041	0.607
18:00 - 18:30	2	4041	0.099	2	4041	0.235	2	4041	0.334
18:30 - 19:00	2	4041	0.077	2	4041	0.233	2	4041	0.198
19:00 - 19:30	2	4041	0.173	2	4041	0.074	2	4041	0.247
19:30 - 20:00	2	4041	0.495	2	4041	0.074	2	4041	0.582
20:00 - 20:30	2	4041	0.443	2	4041	0.012	2	4041	0.061
20:30 - 21:00	2	4041	0.047	2	4041	0.012	2	4041	0.149
21:00 - 21:30	1	6482	0.123	1	6482	0.046	1	6482	0.147
21:30 - 22:00	1	6482	0.031	1	6482	0.040	1	6482	0.093
22:00 - 22:30	<u>'</u>	0402	0.031	1	0402	0.002	I	0402	0.073
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			5.097			4.419			9.516
i Otal Nates.			3.077			7.417			7.010

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.

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Wednesday 17/12/14 Distribution Centre Page 30

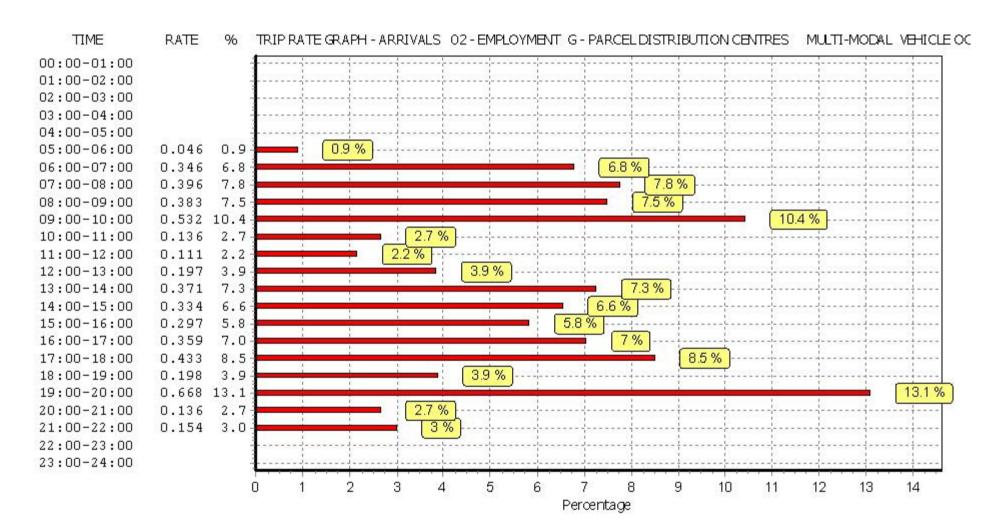
JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

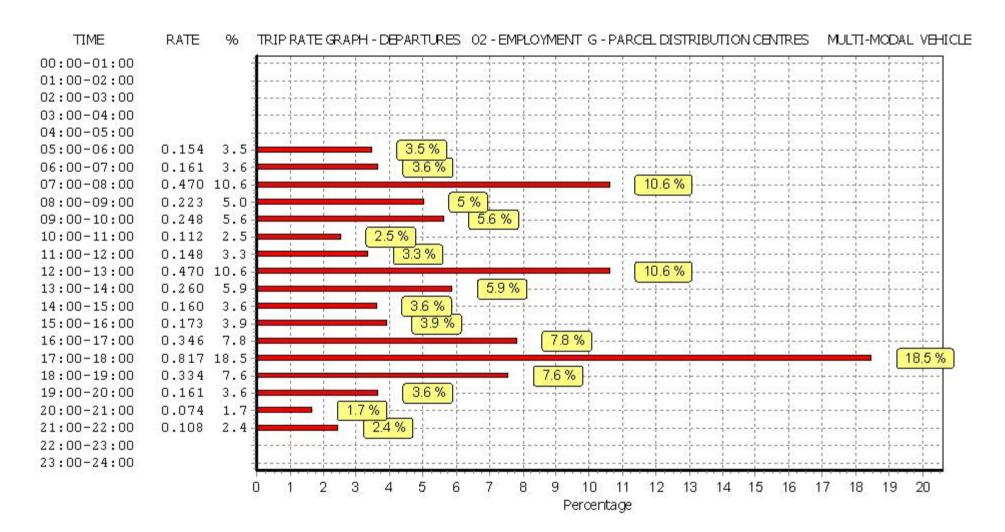
Parameter summary

Trip rate parameter range selected: 1600 - 6482 (units: sqm) Survey date date range: 01/01/06 - 30/11/12

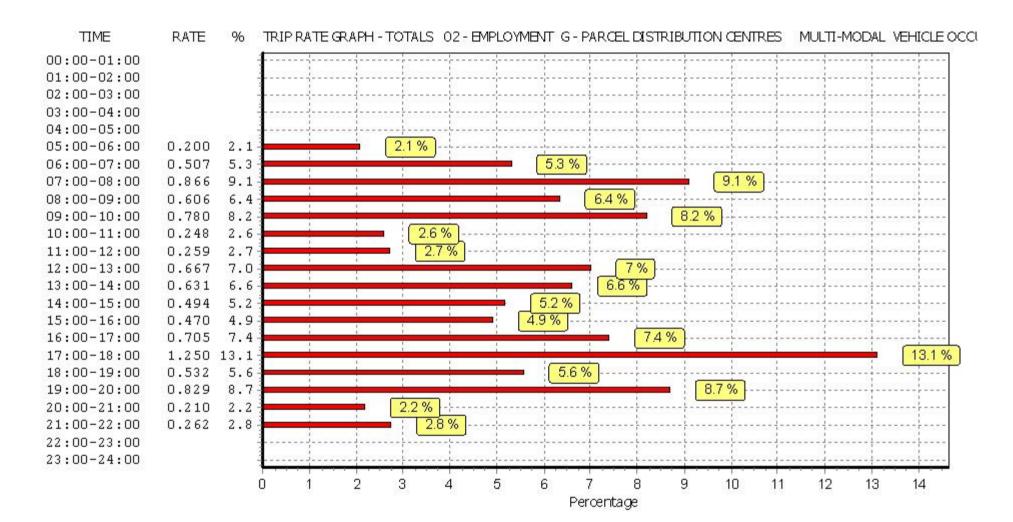
Number of weekdays (Monday-Friday):2Number of Saturdays:0Number of Sundays:0Surveys manually removed from selection:0

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.





Licence No: 846406



JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

TRIP RATE for Land Use 02 - EMPLOYMENT/G - PARCEL DISTRIBUTION CENTRES

MULTI-MODAL PEDESTRIANS Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 00:30	,			,			,		
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	6482	0.000	1	6482	0.000	1	6482	0.000
05:30 - 06:00	1	6482	0.000	1	6482	0.000	1	6482	0.000
06:00 - 06:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
06:30 - 07:00	2	4041	0.000	2	4041	0.012	2	4041	0.000
07:00 - 07:30	2	4041	0.012	2	4041	0.012	2	4041	0.012
07:30 - 08:00	2	4041	0.012	2	4041	0.000	2	4041	0.024
08:00 - 08:30	2	4041	0.012	2	4041	0.000	2	4041	0.012
08:30 - 09:00	2	4041	0.023	2	4041	0.000	2	4041	0.037
09:00 - 09:30	2	4041	0.037	2	4041	0.000	2	4041	0.037
09:30 - 10:00	2	4041	0.012	2	4041	0.000	2	4041	0.000
10:00 - 10:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
10:30 - 11:00	2	4041	0.000	2	4041	0.012	2	4041	0.012
11:00 - 11:30	2	4041	0.000	2	4041	0.012	2	4041	0.012
11:30 - 11:30	2	4041	0.000	2	4041	0.012	2	4041	
			0.012		4041	0.000			0.012
12:00 - 12:30	2	4041		2			2	4041	0.025
12:30 - 13:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
13:00 - 13:30	2	4041	0.000	2	4041	0.012	2	4041	0.012
13:30 - 14:00	2	4041	0.012	2	4041	0.000	2	4041	0.012
14:00 - 14:30	2	4041	0.025	2	4041	0.000	2	4041	0.025
14:30 - 15:00	2	4041	0.012	2	4041	0.012	2	4041	0.024
15:00 - 15:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
15:30 - 16:00	2	4041	0.012	2	4041	0.012	2	4041	0.024
16:00 - 16:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
16:30 - 17:00	2	4041	0.012	2	4041	0.037	2	4041	0.049
17:00 - 17:30	2	4041	0.000	2	4041	0.025	2	4041	0.025
17:30 - 18:00	2	4041	0.000	2	4041	0.012	2	4041	0.012
18:00 - 18:30	2	4041	0.025	2	4041	0.025	2	4041	0.050
18:30 - 19:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
19:00 - 19:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
19:30 - 20:00	2	4041	0.000	2	4041	0.012	2	4041	0.012
20:00 - 20:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
20:30 - 21:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
21:00 - 21:30	1	6482	0.000	1	6482	0.000	1	6482	0.000
21:30 - 22:00	1	6482	0.000	1	6482	0.000	1	6482	0.000
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.208			0.244			0.452

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

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

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Wednesday 17/12/14 Distribution Centre Page 35

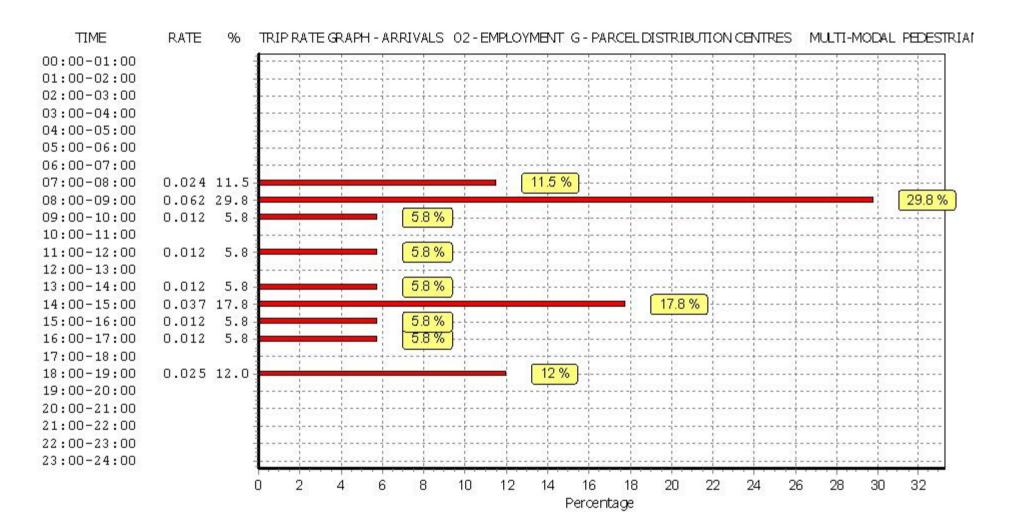
JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

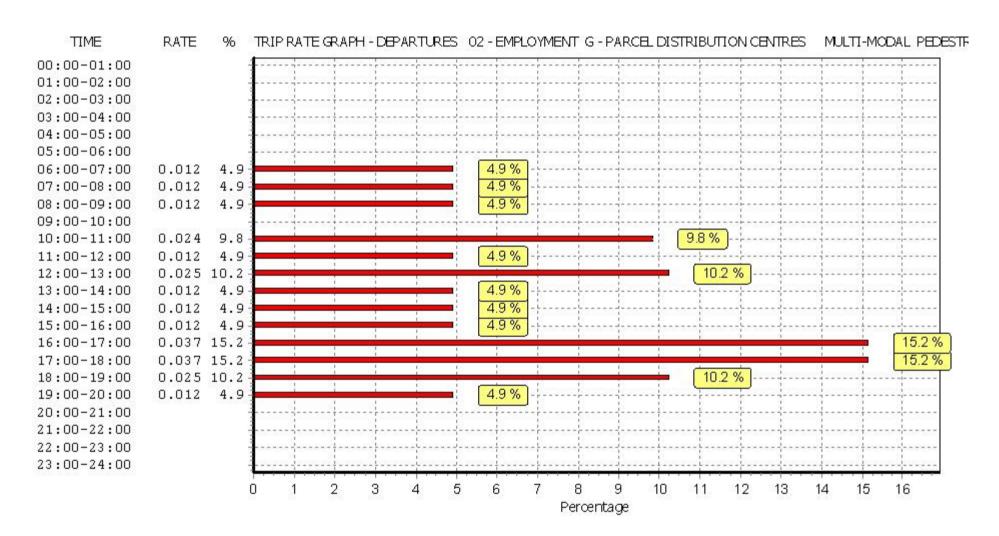
Parameter summary

Trip rate parameter range selected: 1600 - 6482 (units: sqm) Survey date date range: 01/01/06 - 30/11/12

Number of weekdays (Monday-Friday):2Number of Saturdays:0Number of Sundays:0Surveys 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.

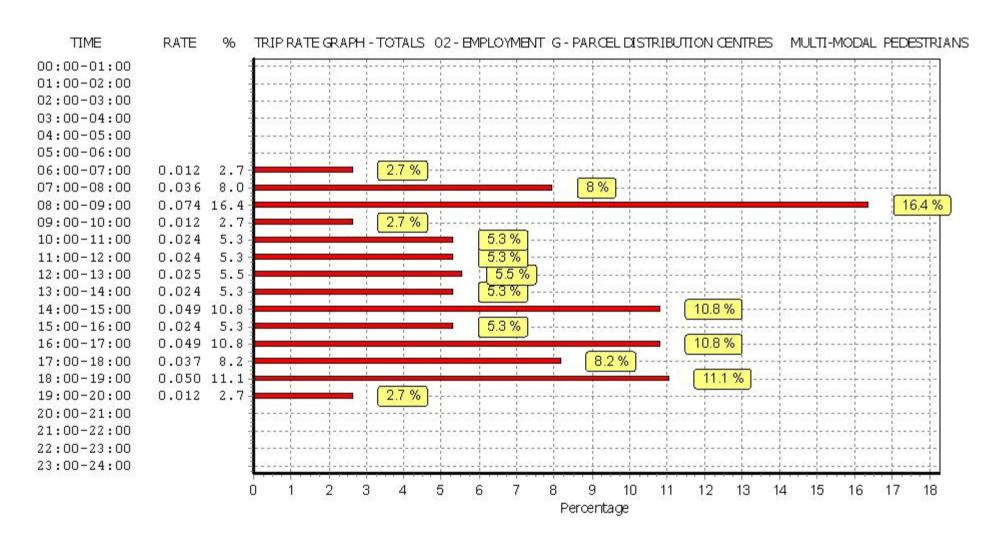




JMP Consultants Ltd. Bothwell Street Glasgow

Distribution Centre

Licence No: 846406



JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

TRIP RATE for Land Use 02 - EMPLOYMENT/G - PARCEL DISTRIBUTION CENTRES MULTI-MODAL BUS/TRAM PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 00:30	,			,			,		
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	6482	0.000	1	6482	0.000	1	6482	0.000
05:30 - 06:00	1	6482	0.000	1	6482	0.000	1	6482	0.000
06:00 - 06:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
06:30 - 07:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
07:00 - 07:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
07:30 - 08:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
08:00 - 08:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
08:30 - 09:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
09:00 - 09:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
09:30 - 10:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
10:00 - 10:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
10:30 - 11:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
11:00 - 11:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
11:30 - 12:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
12:00 - 12:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
12:30 - 13:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
13:00 - 13:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
13:30 - 14:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
14:00 - 14:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
14:30 - 15:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
15:00 - 15:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
15:30 - 16:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
16:00 - 16:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
16:30 - 17:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
17:00 - 17:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
17:30 - 18:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
18:00 - 18:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
18:30 - 19:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
19:00 - 19:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
19:30 - 20:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
20:00 - 20:30	2	4041	0.000		4041	0.000		4041	0.000
20:30 - 20:30	2	4041	0.000	2	4041	0.000	2 2	4041	0.000
21:00 - 21:30	1	6482	0.000	1	6482	0.000	1	6482	0.000
21:30 - 21:30	1	6482	0.000	1	6482	0.000	1	6482	0.000
22:00 - 22:30	I	0482	0.000	I	0482	0.000	I	0482	0.000
					+			+	
22:30 - 23:00									
23:00 - 23:30 23:30 - 24:00									
			0.000			0.000			0.000
Total Rates:			0.000			0.000			0.000

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

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

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Wednesday 17/12/14 Distribution Centre Page 40

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

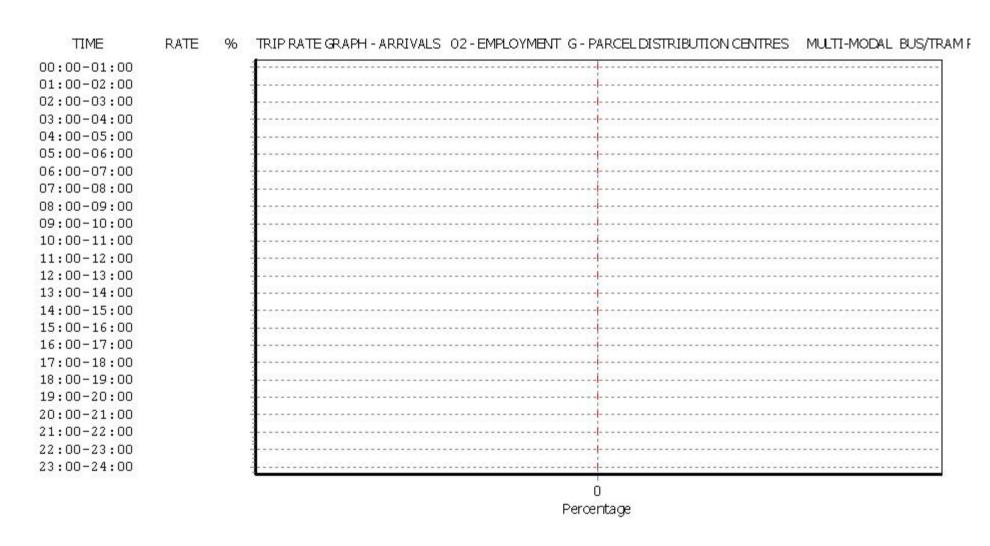
Parameter summary

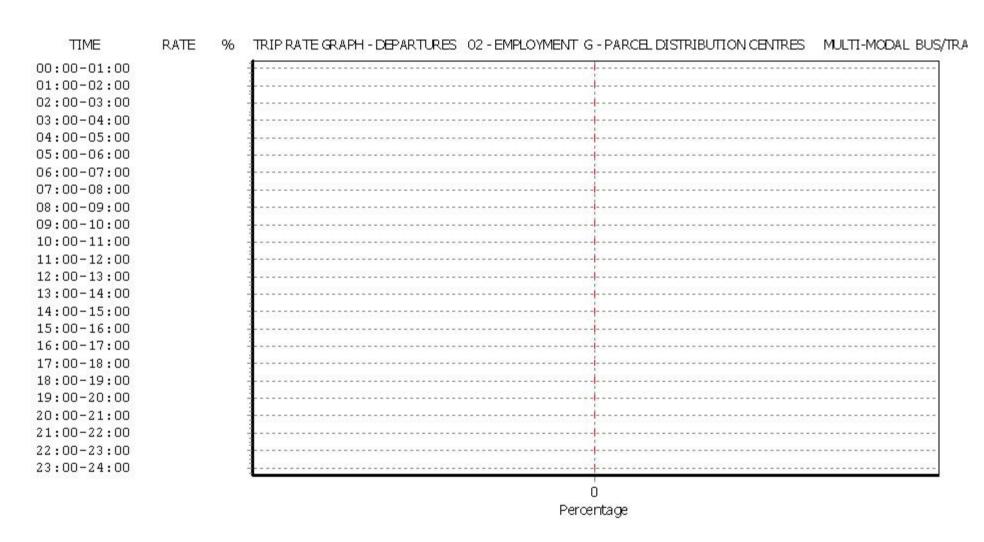
Trip rate parameter range selected: 1600 - 6482 (units: sqm) Survey date date range: 01/01/06 - 30/11/12

Number of weekdays (Monday-Friday):2Number of Saturdays:0Number of Sundays:0Surveys 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.

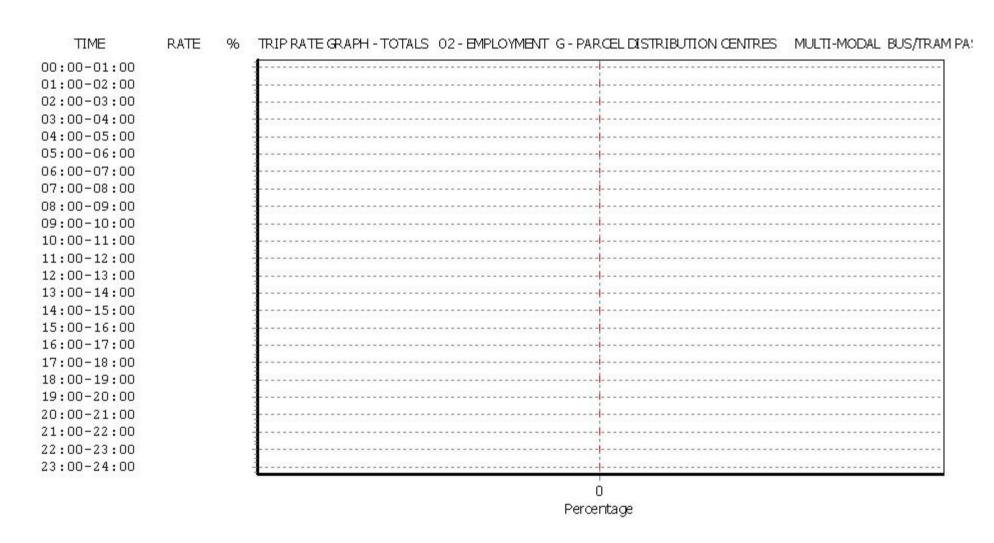
Licence No: 846406





Distribution Centre

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406



JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

TRIP RATE for Land Use 02 - EMPLOYMENT/G - PARCEL DISTRIBUTION CENTRES MULTI-MODAL TOTAL RAIL PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS		[DEPARTURES		TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 00:30	_			-			-		
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	6482	0.000	1	6482	0.000	1	6482	0.000
05:30 - 06:00	1	6482	0.000	1	6482	0.000	1	6482	0.000
06:00 - 06:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
06:30 - 07:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
07:00 - 07:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
07:30 - 08:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
08:00 - 08:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
08:30 - 09:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
09:00 - 09:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
09:30 - 10:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
10:00 - 10:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
10:30 - 11:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
11:00 - 11:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
11:30 - 12:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
12:00 - 12:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
12:30 - 13:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
13:00 - 13:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
13:30 - 14:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
14:00 - 14:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
14:30 - 15:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
15:00 - 15:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
15:30 - 16:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
16:00 - 16:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
16:30 - 17:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
17:00 - 17:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
17:30 - 18:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
18:00 - 18:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
18:30 - 19:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
19:00 - 19:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
19:30 - 20:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
20:00 - 20:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
20:30 - 21:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
21:00 - 21:30	1	6482	0.000	1	6482	0.000	1	6482	0.000
21:30 - 22:00	1	6482	0.000	1	6482	0.000	1	6482	0.000
22:00 - 22:30	'	0402	0.000	1	0402	0.000	- 1	0402	0.000
22:30 - 23:00									
23:00 - 23:30			+						
23:30 - 24:00			-						
Total Rates:			0.000			0.000			0.000
TULAI RALES.			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.

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Wednesday 17/12/14 Distribution Centre Page 45

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

Parameter summary

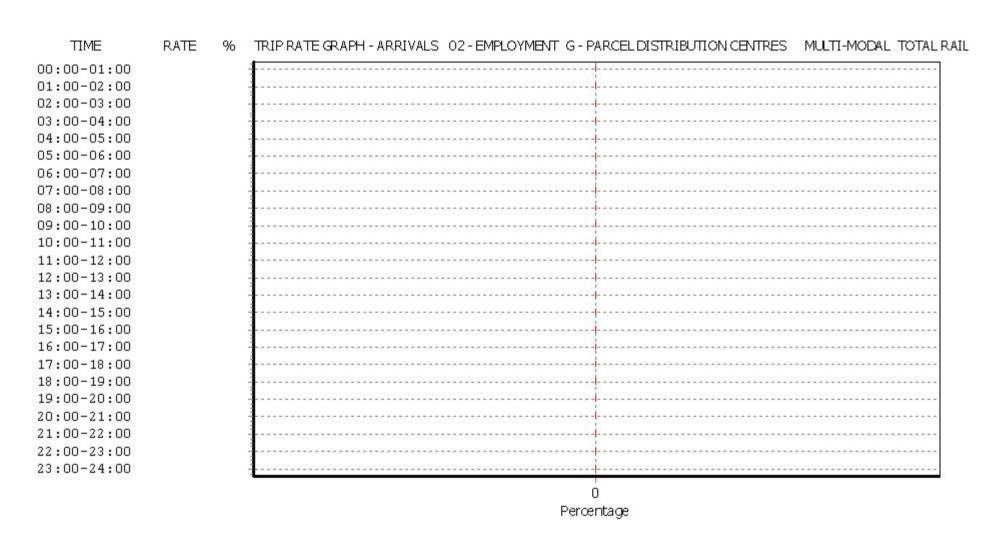
Trip rate parameter range selected: 1600 - 6482 (units: sqm) Survey date date range: 01/01/06 - 30/11/12

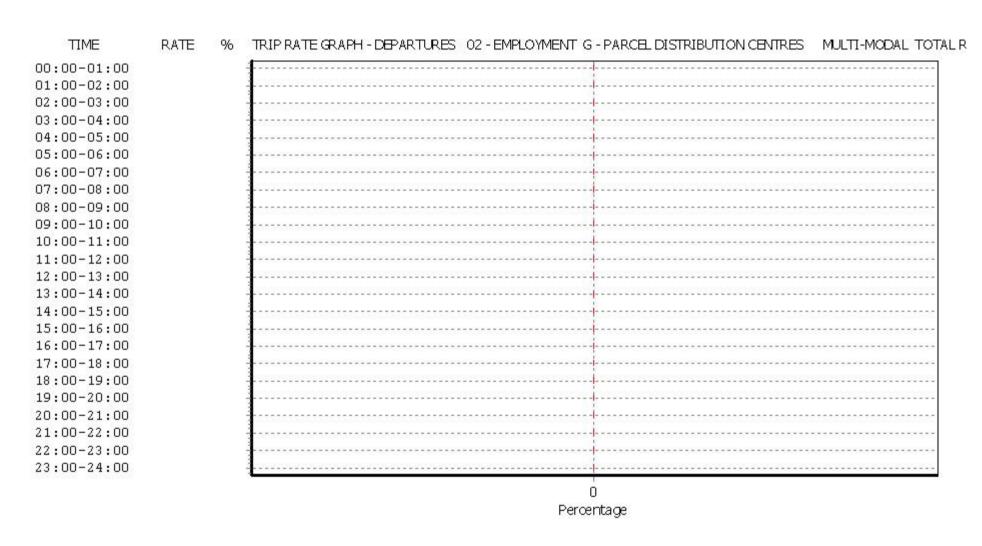
Number of weekdays (Monday-Friday):2Number of Saturdays:0Number of Sundays:0Surveys manually removed from selection:0

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.

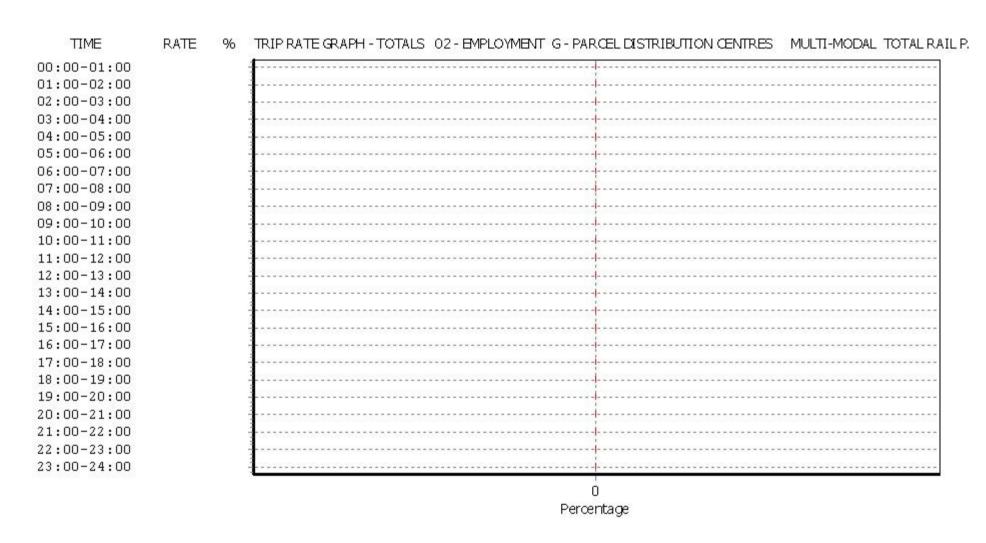
JMP Consultants Ltd. Bothwell Street Glasgow

Licence No: 846406





JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406



JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

TRIP RATE for Land Use 02 - EMPLOYMENT/G - PARCEL DISTRIBUTION CENTRES MULTI-MODAL COACH PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS		[DEPARTURES		TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 00:30	_			-			-		
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	6482	0.000	1	6482	0.000	1	6482	0.000
05:30 - 06:00	1	6482	0.000	1	6482	0.000	1	6482	0.000
06:00 - 06:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
06:30 - 07:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
07:00 - 07:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
07:30 - 08:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
08:00 - 08:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
08:30 - 09:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
09:00 - 09:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
09:30 - 10:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
10:00 - 10:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
10:30 - 11:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
11:00 - 11:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
11:30 - 12:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
12:00 - 12:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
12:30 - 13:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
13:00 - 13:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
13:30 - 14:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
14:00 - 14:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
14:30 - 15:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
15:00 - 15:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
15:30 - 16:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
16:00 - 16:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
16:30 - 17:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
17:00 - 17:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
17:30 - 18:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
18:00 - 18:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
18:30 - 19:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
19:00 - 19:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
19:30 - 20:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
20:00 - 20:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
20:30 - 21:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
21:00 - 21:30	1	6482	0.000	1	6482	0.000	1	6482	0.000
21:30 - 22:00	1	6482	0.000	1	6482	0.000	1	6482	0.000
22:00 - 22:30	'	0402	0.000	1	0402	0.000	- 1	0402	0.000
22:30 - 23:00									
23:00 - 23:30			+						
23:30 - 24:00									
Total Rates:			0.000			0.000			0.000
TULAI RALES.			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.

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Wednesday 17/12/14 Distribution Centre Page 50

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

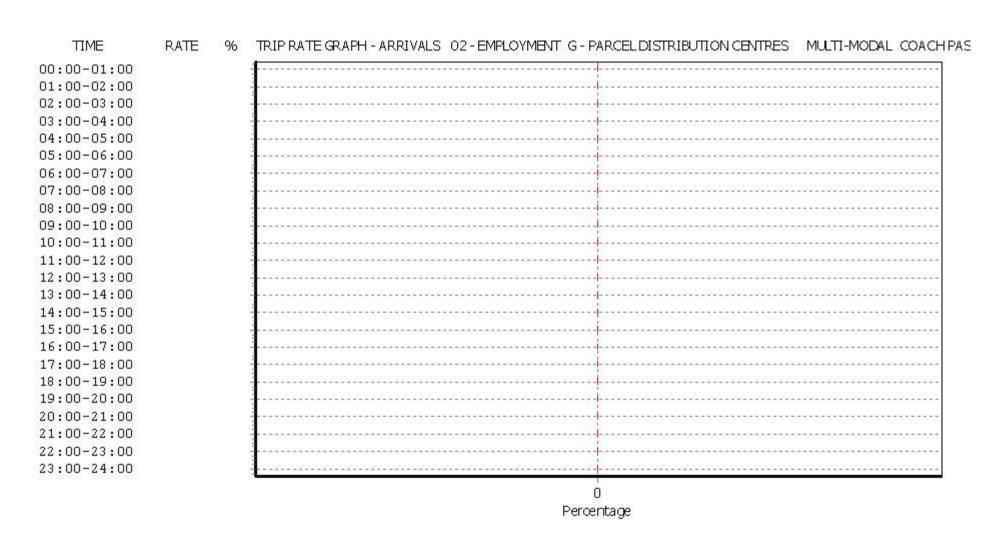
Parameter summary

Trip rate parameter range selected: 1600 - 6482 (units: sqm) Survey date date range: 01/01/06 - 30/11/12

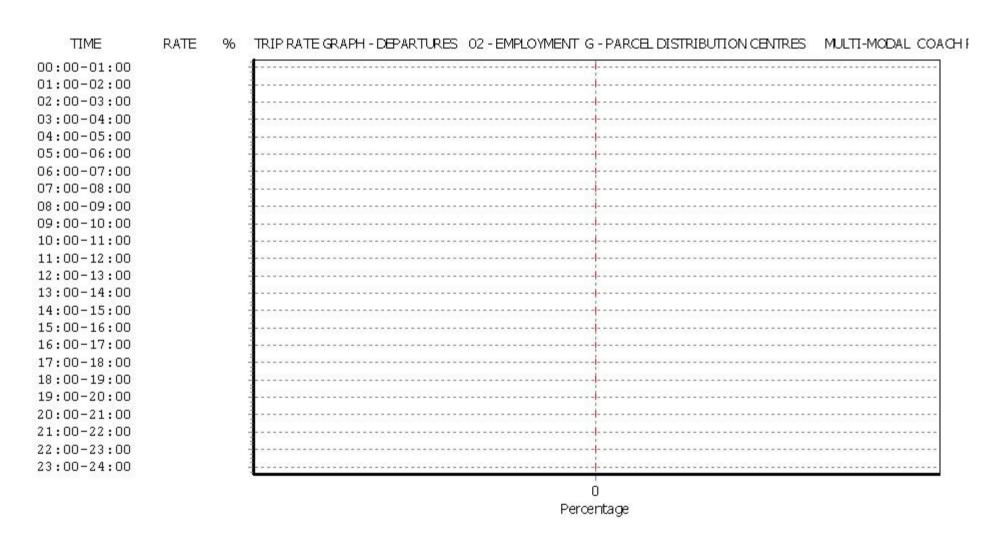
Number of weekdays (Monday-Friday):2Number of Saturdays:0Number of Sundays:0Surveys manually removed from selection:0

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.

Licence No: 846406

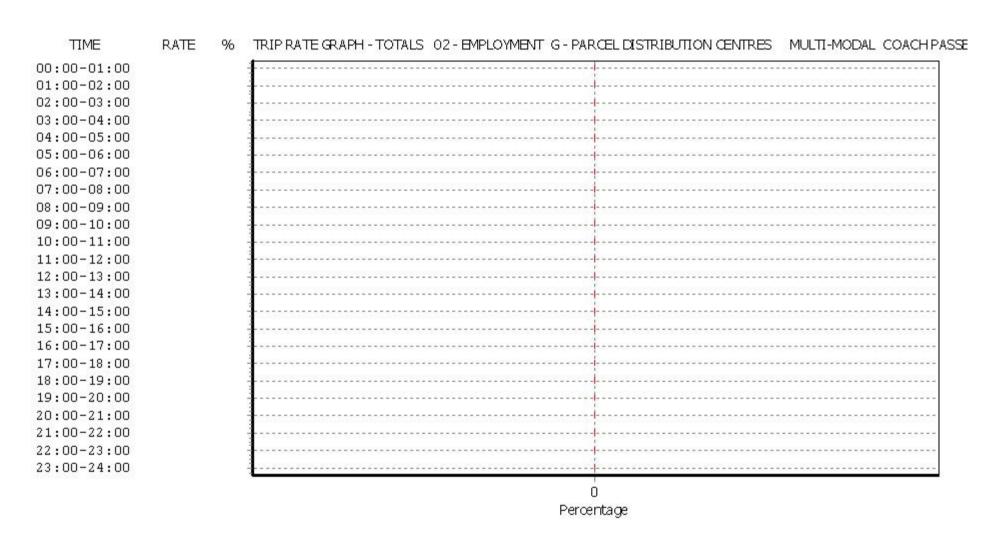


JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406



Distribution Centre

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406



Licence No: 846406

JMP Consultants Ltd. Bothwell Street Glasgow

TRIP RATE for Land Use 02 - EMPLOYMENT/G - PARCEL DISTRIBUTION CENTRES MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS			DEPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 00:30				,			1		
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	6482	0.000	1	6482	0.000	1	6482	0.000
05:30 - 06:00	1	6482	0.000	1	6482	0.000	1	6482	0.000
06:00 - 06:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
06:30 - 07:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
07:00 - 07:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
07:30 - 08:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
08:00 - 08:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
08:30 - 09:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
09:00 - 09:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
09:30 - 10:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
10:00 - 10:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
10:30 - 11:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
11:00 - 11:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
11:30 - 12:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
12:00 - 12:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
12:30 - 13:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
13:00 - 13:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
13:30 - 14:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
14:00 - 14:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
14:30 - 15:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
15:00 - 15:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
15:30 - 16:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
16:00 - 16:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
16:30 - 17:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
17:00 - 17:30	2	4041	0.000	2	4041	0.000	2	4041	0.000
17:30 - 17:30		4041	0.000		4041	0.000	2	4041	0.000
18:00 - 18:30	2 2	4041	0.000	2	4041	0.000	2	4041	0.000
18:30 - 19:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
19:00 - 19:30									
	2 2	4041	0.000	2	4041 4041	0.000	2	4041	0.000
19:30 - 20:00 20:00 - 20:30		4041	0.000					4041	
	2	4041		2	4041	0.000	2	4041	0.000
20:30 - 21:00	2	4041	0.000	2	4041	0.000	2	4041	0.000
21:00 - 21:30	1	6482	0.000	1	6482		1	6482	0.000
21:30 - 22:00	1	6482	0.000	1	6482	0.000	I	6482	0.000
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00			0.000			0.000			0.000
Total Rates:			0.000			0.000			0.000

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

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

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Wednesday 17/12/14 Distribution Centre Page 55

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

Parameter summary

Trip rate parameter range selected: 1600 - 6482 (units: sqm) Survey date date range: 01/01/06 - 30/11/12

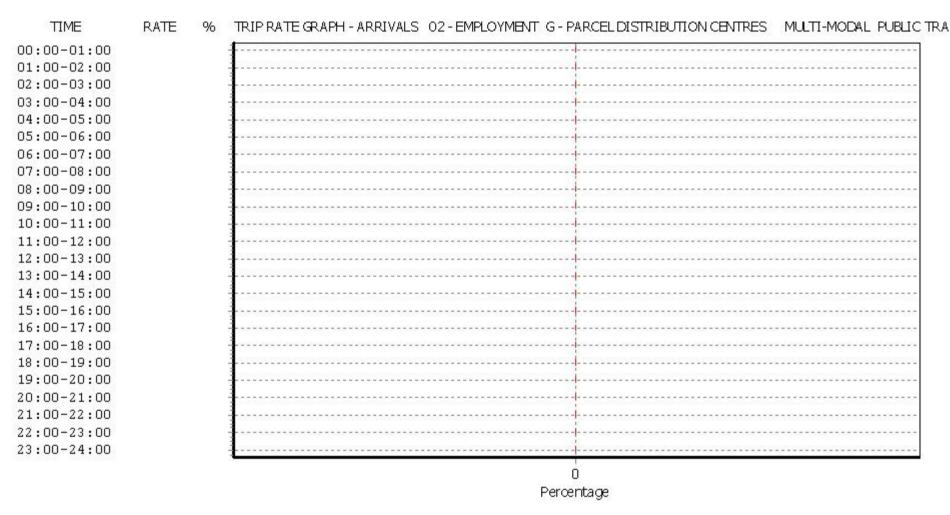
Number of weekdays (Monday-Friday):2Number of Saturdays:0Number of Sundays:0Surveys manually removed from selection:0

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.

Distribution Centre

JMP Consultants Ltd. Bothwell Street Glasgow

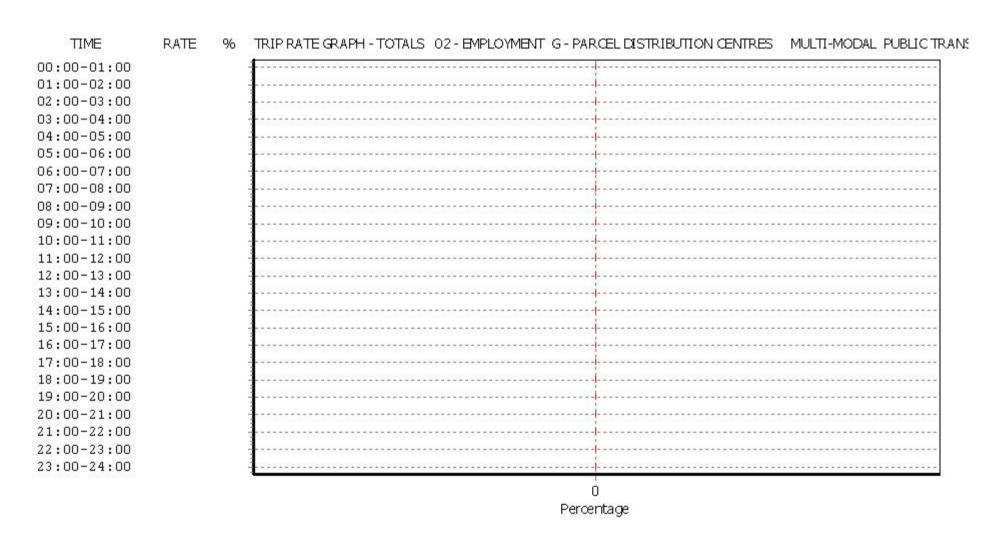
Licence No: 846406



TIME RATE TRIP RATE GRAPH - DEPARTURES 02 - EMPLOYMENT G - PARCEL DISTRIBUTION CENTRES MULTI-MODAL PUBLIC 1 00:00-01:00 01:00-02:00 02:00-03:00 03:00-04:00 04:00-05:00 05:00-06:00 06:00-07:00 07:00-08:00 08:00-09:00 09:00-10:00 10:00-11:00 11:00-12:00 12:00-13:00 13:00-14:00 14:00-15:00 15:00-16:00 16:00-17:00 17:00-18:00 18:00-19:00 19:00-20:00 20:00-21:00 21:00-22:00 22:00-23:00 23:00-24:00 0 Percentage

Licence No: 846406

ell Street Glasgow Licence No: 846406



JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

TRIP RATE for Land Use 02 - $\ensuremath{\mathsf{EMPLOYMENT/G}}$ - $\ensuremath{\mathsf{PARCEL}}$ DISTRIBUTION CENTRES

MULTI-MODAL TOTAL PEOPLE Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS		[DEPARTURES		TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 00:30	_			-			•		
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	6482	0.015	1	6482	0.123	1	6482	0.138
05:30 - 06:00	1	6482	0.031	1	6482	0.031	1	6482	0.062
06:00 - 06:30	2	4041	0.161	2	4041	0.074	2	4041	0.235
06:30 - 07:00	2	4041	0.247	2	4041	0.099	2	4041	0.233
07:00 - 07:30	2	4041	0.186	2	4041	0.077	2	4041	0.359
07:30 - 08:00	2	4041	0.235	2	4041	0.322	2	4041	0.557
08:00 - 08:30	2	4041	0.161	2	4041	0.148	2	4041	0.309
08:30 - 09:00	2	4041	0.285	2	4041	0.087	2	4041	0.372
09:00 - 09:30	2	4041	0.203	2	4041	0.124	2	4041	0.495
09:30 - 10:00	2	4041	0.186	2	4041	0.124	2	4041	0.473
10:00 - 10:30	2	4041	0.087	2	4041	0.099	2	4041	0.310
10:30 - 11:00	2	4041	0.049	2	4041	0.077	2	4041	0.086
11:00 - 11:30	2	4041	0.074	2	4041	0.037	2	4041	0.185
11:30 - 12:00	2	4041	0.074	2	4041	0.111	2	4041	0.103
12:00 - 12:30	2	4041	0.049	2	4041	0.047	2	4041	0.284
12:30 - 13:00	2	4041	0.148	2	4041	0.130	2	4041	0.408
13:00 - 13:30	2	4041	0.161	2	4041	0.337	2	4041	0.400
13:30 - 14:00	2	4041	0.101	2	4041	0.173	2	4041	0.322
14:00 - 14:30	2	4041	0.223	2	4041	0.077	2	4041	0.322
14:30 - 15:00	2	4041	0.186	2	4041	0.062	2	4041	0.248
15:00 - 15:30	2	4041	0.186	2	4041	0.002	2	4041	0.248
15:30 - 16:00	2	4041	0.124	2	4041	0.099	2	4041	0.223
16:00 - 16:30	2	4041	0.161	2	4041	0.007	2	4041	0.273
16:30 - 17:00	2	4041	0.101	2	4041	0.111	2	4041	0.482
17:00 - 17:30	2	4041	0.210	2	4041	0.272	2	4041	0.462
17:30 - 17:30	2	4041	0.247	2	4041	0.436	2	4041	0.703
18:00 - 18:30	2	4041	0.100	2	4041	0.443	2	4041	0.384
18:30 - 19:00	2	4041	0.124	2	4041	0.200	2	4041	0.384
19:00 - 19:30	2	4041	0.099	2	4041	0.111	2	4041	0.210
19:30 - 20:00	2	4041	0.173	2	4041	0.074	2	4041	0.606
20:00 - 20:30	2	4041	0.049	2	4041	0.099	2	4041	0.061
20:30 - 21:00	2	4041	0.049	2	4041	0.012	2	4041	0.061
21:00 - 21:30	1	6482	0.087	1	6482	0.002	1	6482	0.149
21:30 - 22:00	1	6482	0.123	1	6482	0.040	1	6482	0.109
22:00 - 22:30	1	6482	0.000	1	6482	0.002	1	6482	0.000
22:30 - 23:00		0402	0.000		0402	0.000	- '	0402	0.000
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			5.397			4.739			10.136
TULAI RALES.			0.397			4.739			10.130

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

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

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Wednesday 17/12/14 Distribution Centre Page 60

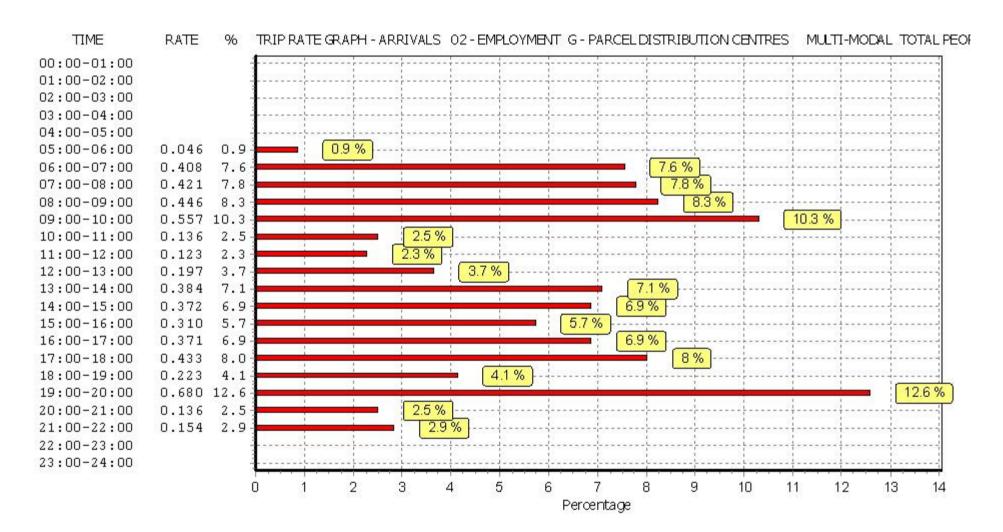
JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

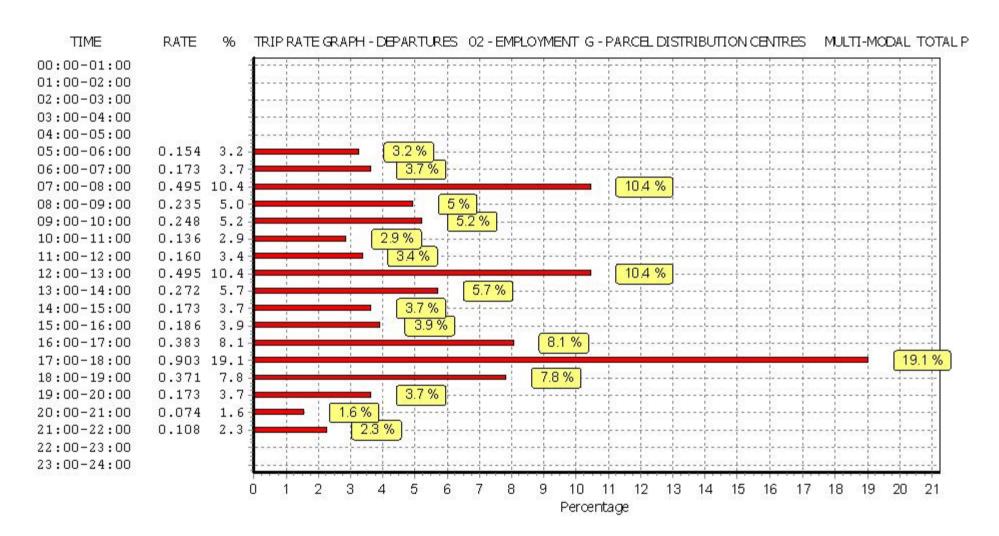
Parameter summary

Trip rate parameter range selected: 1600 - 6482 (units: sqm) Survey date date range: 01/01/06 - 30/11/12

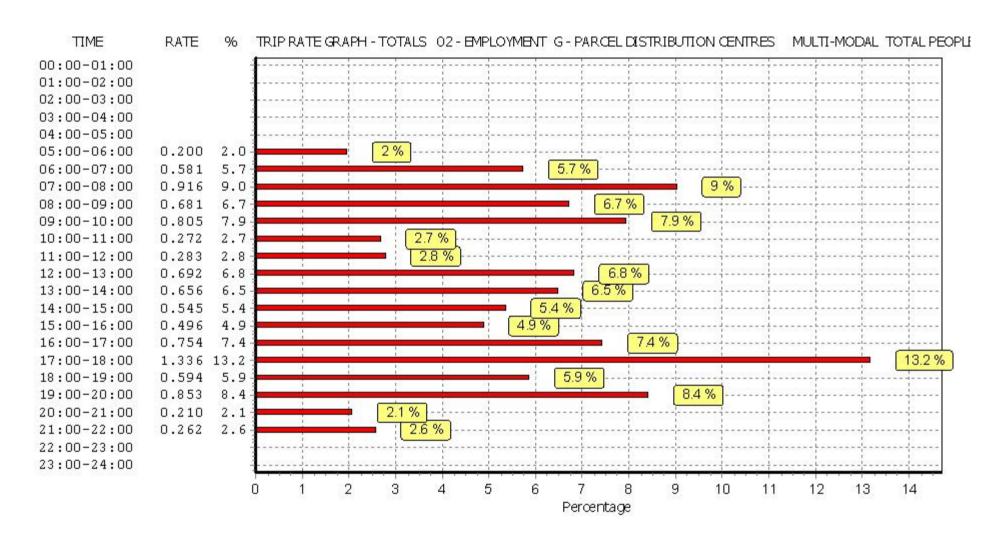
Number of weekdays (Monday-Friday):2Number of Saturdays:0Number of Sundays:0Surveys manually removed from selection:0

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.





Licence No: 846406



TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Friday 19/12/14 Builders Merchant Page 1

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL

Category : L - BUILDER'S MERCHANTS

VEHIĆLES

Selected regions and areas:

02 SOUTH EAST

KC KENT 1 days

05 EAST MIDLANDS

LN LINCOLNSHIRE 2 days

06 WEST MIDLANDS

WM WEST MIDLANDS 1 days
WO WORCESTERSHIRE 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: Gross floor area

Actual Range: 1051 to 6275 (units: sqm) Range Selected by User: 600 to 9974 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/06 to 11/06/13

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:

Monday 3 days Tuesday 1 days Wednesday 1 days

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

Selected survey types:

Manual count 5 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.

<u>Selected Locations:</u>

Edge of Town Centre 2
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:

Industrial Zone 2
Commercial Zone 1
Residential Zone 1
Built-Up Zone 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.

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Friday 19/12/14 Builders Merchant Page 2

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

Filtering Stage 3 selection:

Use Class:

A1 5 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	1 days
15,001 to 20,000	3 days
25,001 to 50,000	1 days

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

Population within 5 miles:

25,001 to 50,000	1 days
50,001 to 75,000	2 days
100,001 to 125,000	1 days
500,001 or More	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	3 days

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

Petrol filling station:

Included in the survey count	0 days
Excluded from count or no filling station	5 days

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

Travel Plan:

No 5 days

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

TRICS 7.1.3 091214 B17.00 (C) 2015 JMP Consultants Ltd on behalf of the TRICS Consortium Friday 19/12/14 Builders Merchant Page 3

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406

LIST OF SITES relevant to selection parameters

1 KC-01-L-01 TRAVIS PERKINS KENT

ENTERPRISE WAY WESTWOOD MARGATE Edge of Town Industrial Zone

Total Gross floor area: 6275 sqm

Survey date: MONDAY 07/12/09 Survey Type: MANUAL

2 LN-01-L-01 JEWSON LINCOLNSHIRE

WHARF ROAD

GRANTHAM

Edge of Town Centre

Built-Up Zone

Total Gross floor area: 6020 sqm

Survey date: MONDAY 15/11/10 Survey Type: MANUAL

3 LN-01-L-02 JACKSON BUILDING CENTRE LINCOLNSHIRE

SOUTH PARADE

GRANTHAM

Edge of Town Centre Commercial Zone

Total Gross floor area: 1051 sqm

Survey date: TUESDAY 11/06/13 Survey Type: MANUAL WM-01-L-02 SELCO WEST MI DLANDS

CHARLOTTE ROAD

STIRCHLEY BIRMINGHAM

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Gross floor area: 5600 sqm

Survey date: WEDNESDAY 19/10/11 Survey Type: MANUAL WO-01-L-02 JEWSON WORCESTERSHIRE

NAVIGATION ROAD

WORCESTER Edge of Town Industrial Zone

Total Gross floor area: 5000 sqm

Survey date: MONDAY 15/06/09 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.

Licence No: 846406

JMP Consultants Ltd. Bothwell Street Glasgow

TRIP RATE for Land Use 01 - RETAIL/L - BUILDER'S MERCHANTS

VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			[DEPARTURES	ò	TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	5600	0.000	1	5600	0.000	1	5600	0.000
06:00 - 07:00	3	4224	0.237	3	4224	0.016	3	4224	0.253
07:00 - 08:00	5	4789	0.464	5	4789	0.305	5	4789	0.769
08:00 - 09:00	5	4789	0.773	5	4789	0.597	5	4789	1.370
09:00 - 10:00	5	4789	0.727	5	4789	0.748	5	4789	1.475
10:00 - 11:00	5	4789	0.722	5	4789	0.664	5	4789	1.386
11:00 - 12:00	5	4789	0.727	5	4789	0.656	5	4789	1.383
12:00 - 13:00	5	4789	0.593	5	4789	0.668	5	4789	1.261
13:00 - 14:00	5	4789	0.585	5	4789	0.677	5	4789	1.262
14:00 - 15:00	5	4789	0.547	5	4789	0.564	5	4789	1.111
15:00 - 16:00	5	4789	0.476	5	4789	0.489	5	4789	0.965
16:00 - 17:00	5	4789	0.338	5	4789	0.505	5	4789	0.843
17:00 - 18:00	5	4789	0.109	5	4789	0.255	5	4789	0.364
18:00 - 19:00	2	5300	0.245	2	5300	0.255	2	5300	0.500
19:00 - 20:00	1	5600	0.214	1	5600	0.357	1	5600	0.571
20:00 - 21:00	1	5600	0.000	1	5600	0.036	1	5600	0.036
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00	<u> </u>								·
Total Rates:			6.757			6.792			13.549

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: 1051 - 6275 (units: sqm) Survey date date range: 01/01/06 - 11/06/13

Number of weekdays (Monday-Friday): 5
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0

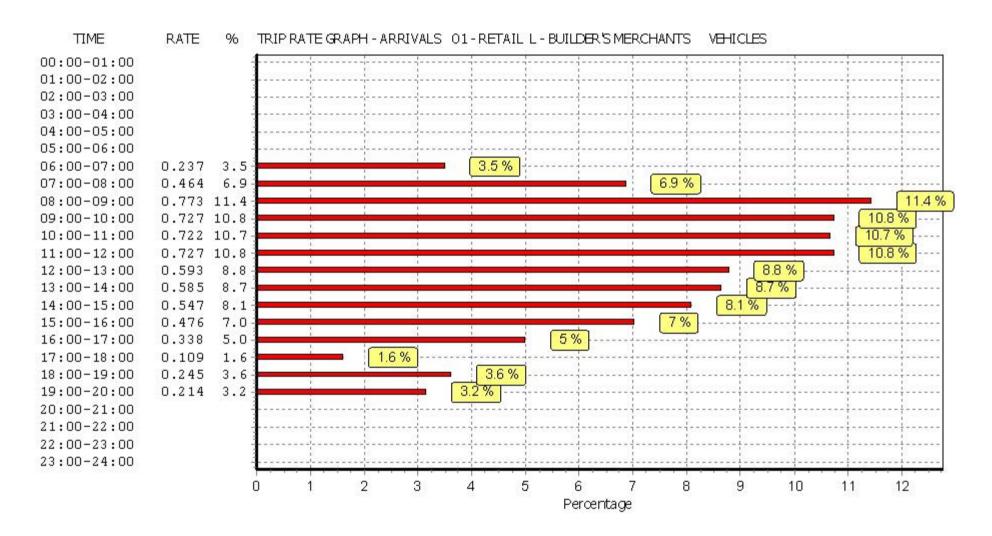
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected 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.

Builders Merchant JMP Consultants Ltd.

Bothwell Street

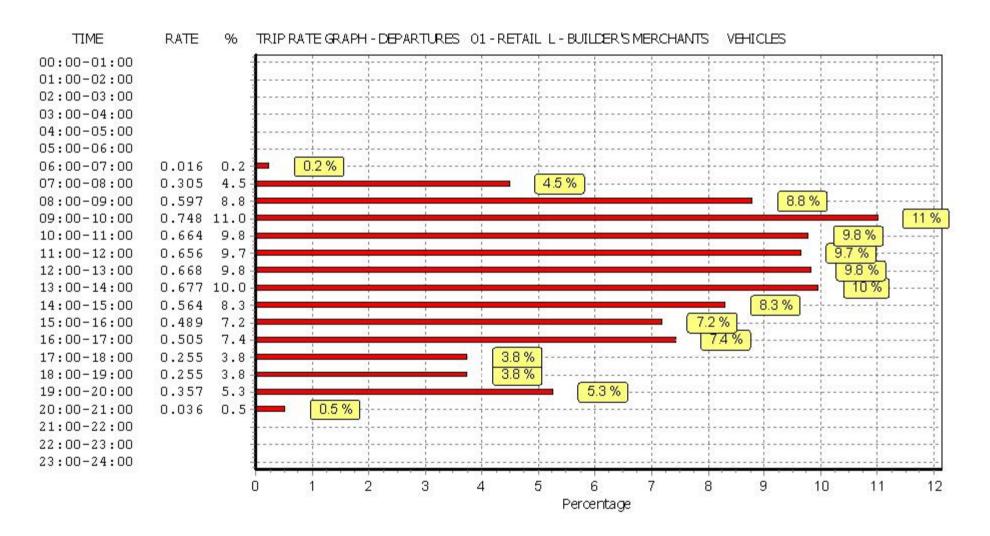
Glasgow

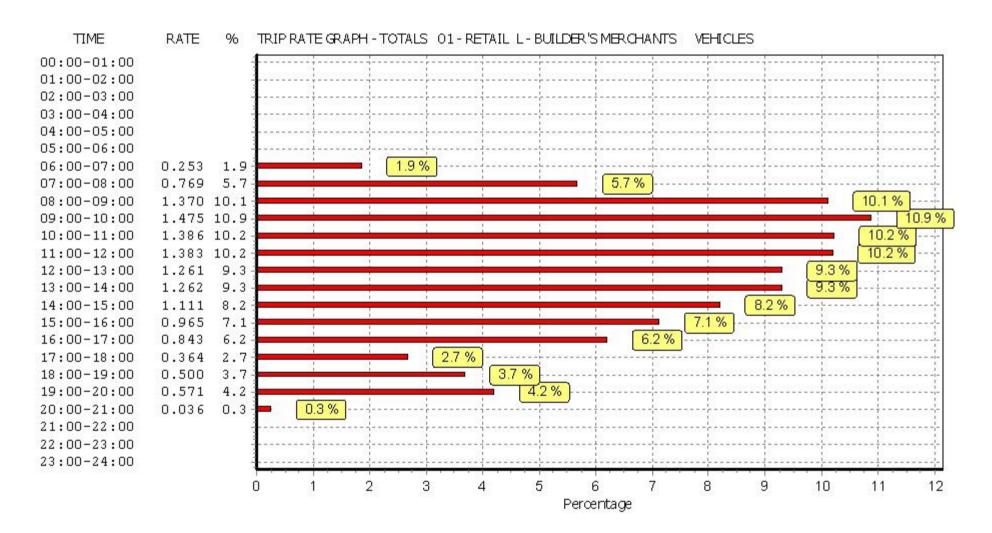
Licence No: 846406



Builders Merchant JMP Consultants Ltd. **Bothwell Street** Glasgow

Licence No: 846406





TRIP RATE for Land Use 01 - RETAIL/L - BUILDER'S MERCHANTS TAXIS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS		[DEPARTURES		TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	5600	0.000	1	5600	0.000	1	5600	0.000
06:00 - 07:00	3	4224	0.000	3	4224	0.000	3	4224	0.000
07:00 - 08:00	5	4789	0.000	5	4789	0.000	5	4789	0.000
08:00 - 09:00	5	4789	0.000	5	4789	0.000	5	4789	0.000
09:00 - 10:00	5	4789	0.000	5	4789	0.000	5	4789	0.000
10:00 - 11:00	5	4789	0.004	5	4789	0.004	5	4789	0.008
11:00 - 12:00	5	4789	0.000	5	4789	0.000	5	4789	0.000
12:00 - 13:00	5	4789	0.000	5	4789	0.000	5	4789	0.000
13:00 - 14:00	5	4789	0.000	5	4789	0.000	5	4789	0.000
14:00 - 15:00	5	4789	0.000	5	4789	0.000	5	4789	0.000
15:00 - 16:00	5	4789	0.000	5	4789	0.000	5	4789	0.000
16:00 - 17:00	5	4789	0.000	5	4789	0.000	5	4789	0.000
17:00 - 18:00	5	4789	0.000	5	4789	0.000	5	4789	0.000
18:00 - 19:00	2	5300	0.000	2	5300	0.000	2	5300	0.000
19:00 - 20:00	1	5600	0.000	1	5600	0.000	1	5600	0.000
20:00 - 21:00	1	5600	0.000	1	5600	0.000	1	5600	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.004			0.004			0.008

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

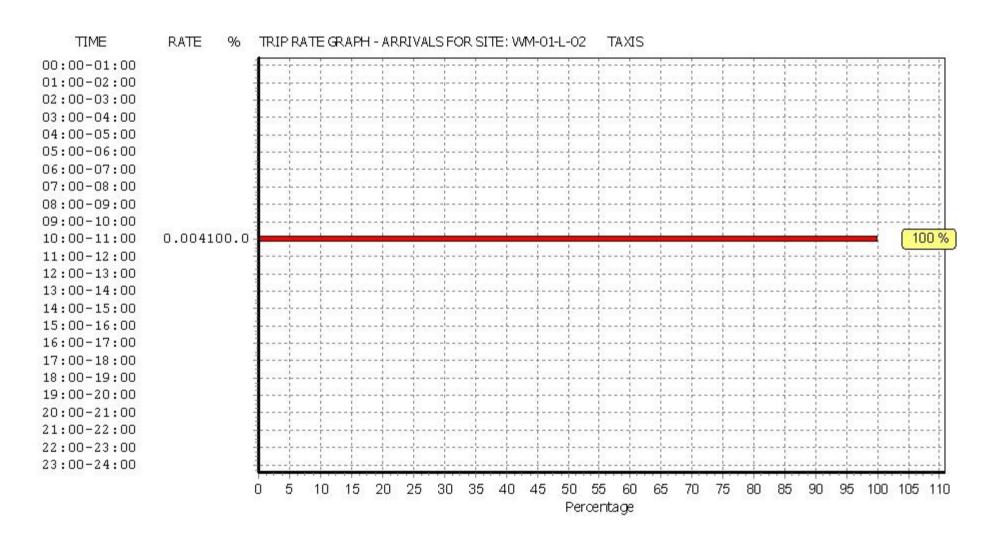
Trip rate parameter range selected: 1051 - 6275 (units: sqm) Survey date date range: 01/01/06 - 11/06/13

Number of weekdays (Monday-Friday): 5
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.

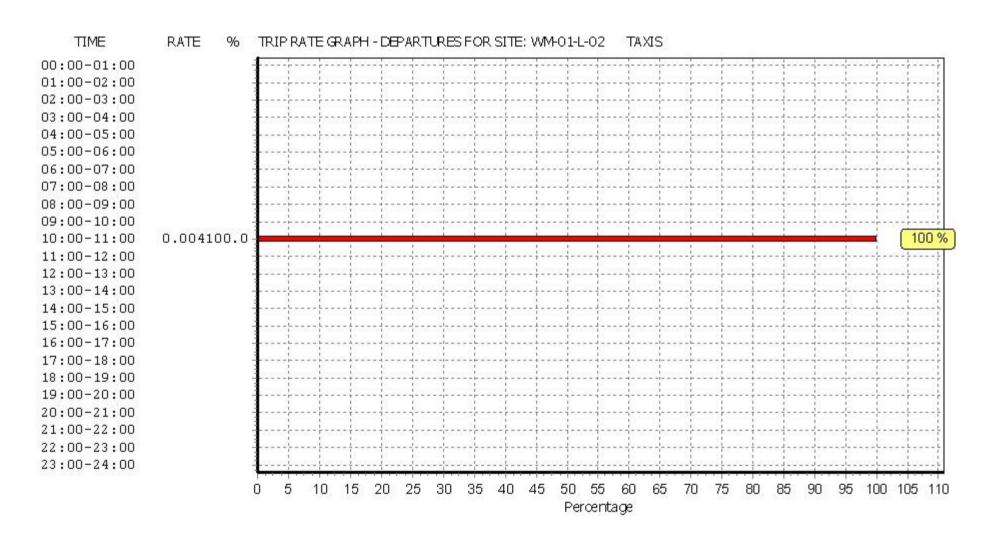
JMP Consultants Ltd. Bothwell Street Glasgow

Licence No: 846406



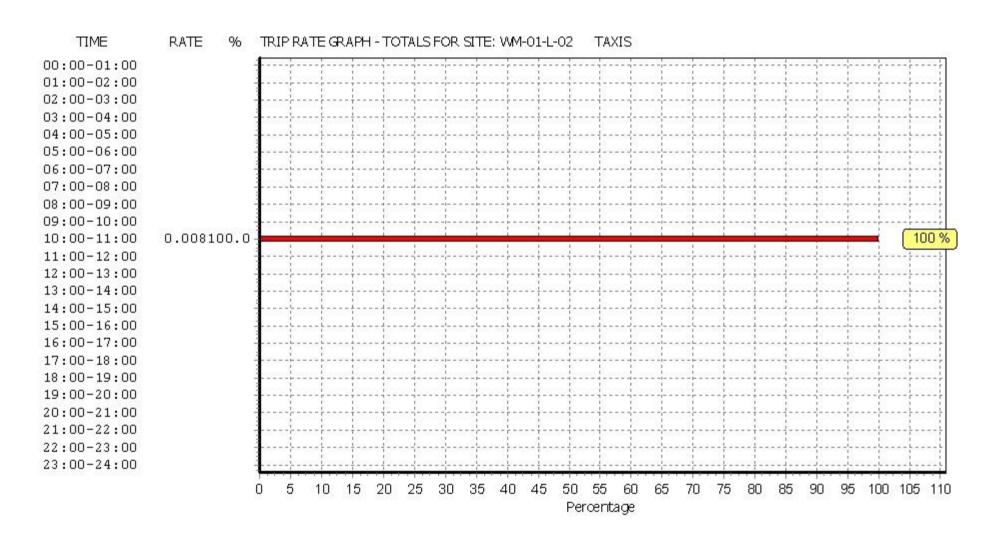
JMP Consultants Ltd. Bothwell Street Glasgow

Licence No: 846406



JMP Consultants Ltd. Bothwell Street Glasgow

Licence No: 846406



TRIP RATE for Land Use 01 - RETAIL/L - BUILDER'S MERCHANTS

OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS		[DEPARTURES		TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	2	5810	0.000	2	5810	0.000	2	5810	0.000
06:00 - 07:00	3	4224	0.024	3	4224	0.016	3	4224	0.040
07:00 - 08:00	5	4789	0.050	5	4789	0.071	5	4789	0.121
08:00 - 09:00	5	4789	0.113	5	4789	0.092	5	4789	0.205
09:00 - 10:00	5	4789	0.088	5	4789	0.100	5	4789	0.188
10:00 - 11:00	5	4789	0.084	5	4789	0.079	5	4789	0.163
11:00 - 12:00	5	4789	0.117	5	4789	0.071	5	4789	0.188
12:00 - 13:00	5	4789	0.063	5	4789	0.079	5	4789	0.142
13:00 - 14:00	5	4789	0.050	5	4789	0.058	5	4789	0.108
14:00 - 15:00	5	4789	0.063	5	4789	0.063	5	4789	0.126
15:00 - 16:00	5	4789	0.054	5	4789	0.050	5	4789	0.104
16:00 - 17:00	5	4789	0.042	5	4789	0.033	5	4789	0.075
17:00 - 18:00	5	4789	0.004	5	4789	0.017	5	4789	0.021
18:00 - 19:00	2	5300	0.000	2	5300	0.009	2	5300	0.009
19:00 - 20:00	1	5600	0.000	1	5600	0.000	1	5600	0.000
20:00 - 21:00	1	5600	0.000	1	5600	0.000	1	5600	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.752			0.738			1.490

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.

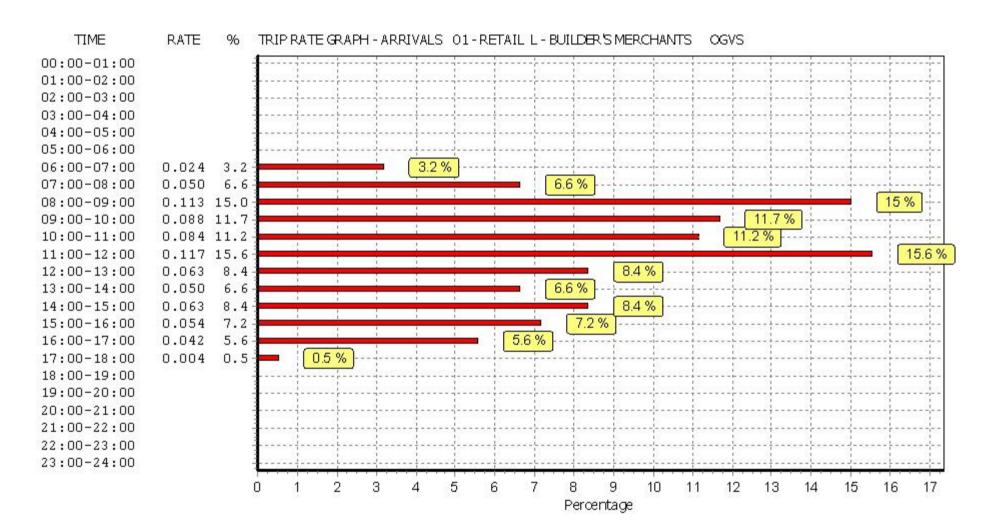
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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: 1051 - 6275 (units: sqm) Survey date date range: 01/01/06 - 11/06/13

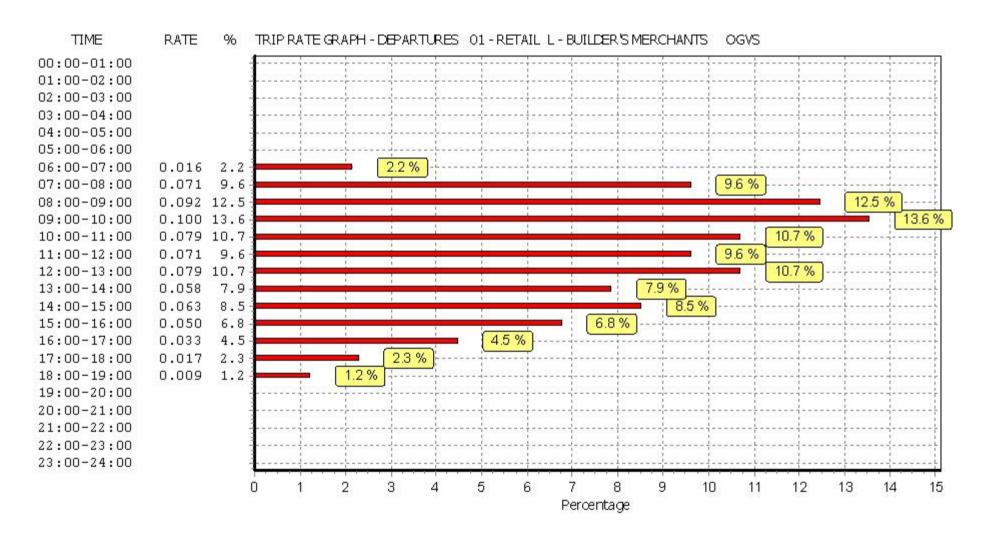
Number of weekdays (Monday-Friday): 5
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 0

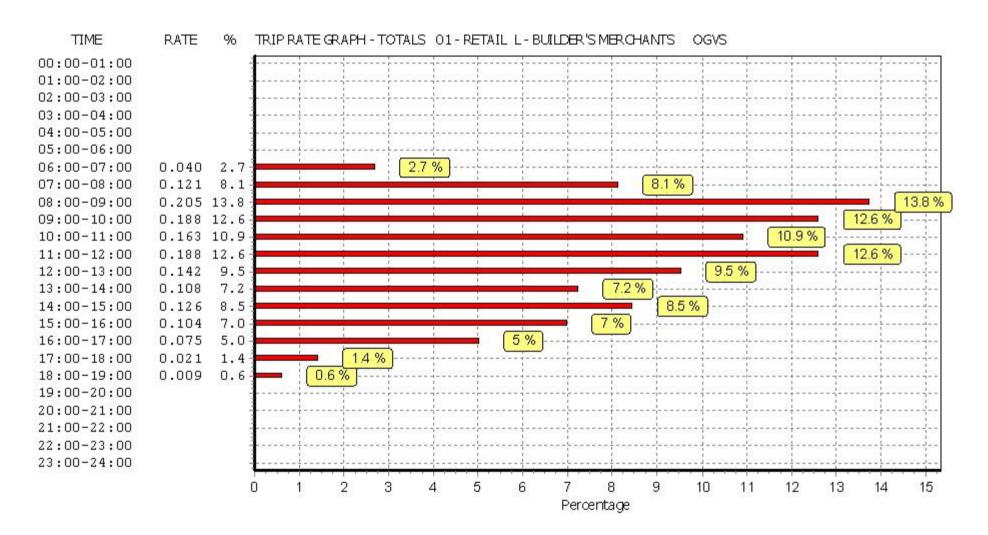
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected 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.



Builders Merchant

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406





TRIP RATE for Land Use 01 - RETAIL/L - BUILDER'S MERCHANTS

PSVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			[DEPARTURES		TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	5600	0.000	1	5600	0.000	1	5600	0.000
06:00 - 07:00	3	4224	0.000	3	4224	0.000	3	4224	0.000
07:00 - 08:00	5	4789	0.000	5	4789	0.000	5	4789	0.000
08:00 - 09:00	5	4789	0.000	5	4789	0.000	5	4789	0.000
09:00 - 10:00	5	4789	0.000	5	4789	0.000	5	4789	0.000
10:00 - 11:00	5	4789	0.000	5	4789	0.000	5	4789	0.000
11:00 - 12:00	5	4789	0.004	5	4789	0.004	5	4789	0.008
12:00 - 13:00	5	4789	0.000	5	4789	0.000	5	4789	0.000
13:00 - 14:00	5	4789	0.000	5	4789	0.000	5	4789	0.000
14:00 - 15:00	5	4789	0.000	5	4789	0.000	5	4789	0.000
15:00 - 16:00	5	4789	0.000	5	4789	0.000	5	4789	0.000
16:00 - 17:00	5	4789	0.000	5	4789	0.000	5	4789	0.000
17:00 - 18:00	5	4789	0.000	5	4789	0.000	5	4789	0.000
18:00 - 19:00	2	5300	0.000	2	5300	0.000	2	5300	0.000
19:00 - 20:00	1	5600	0.000	1	5600	0.000	1	5600	0.000
20:00 - 21:00	1	5600	0.000	1	5600	0.000	1	5600	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.004			0.004			0.008

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.

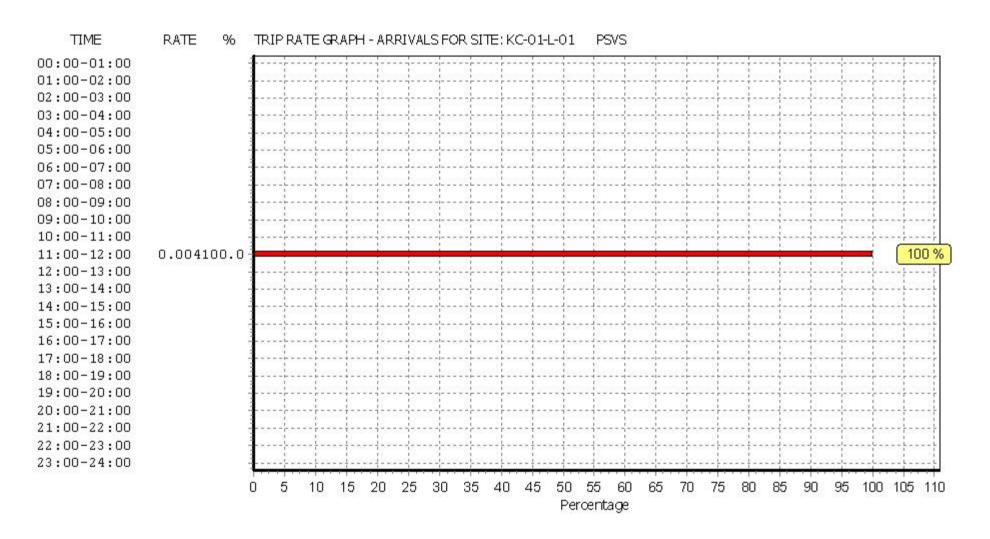
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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

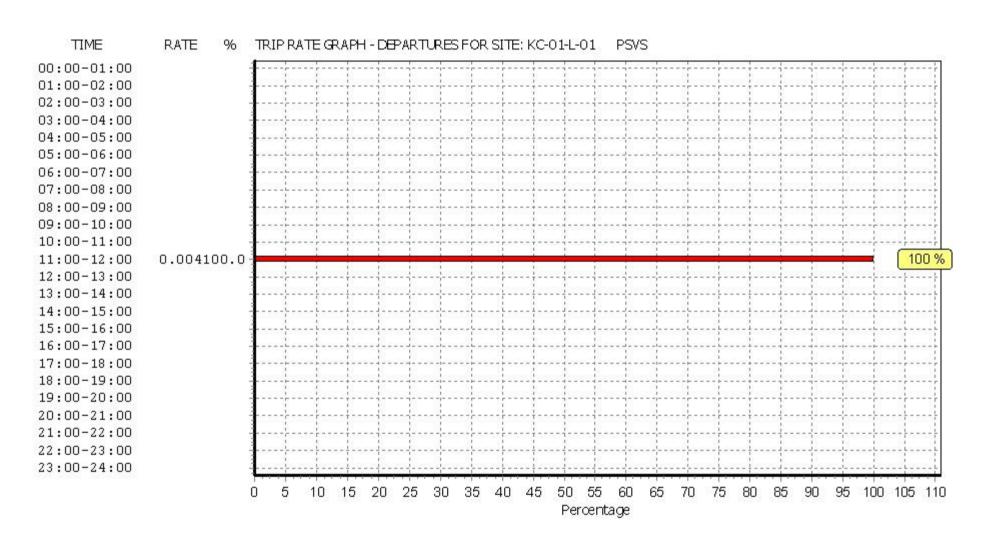
Parameter summary

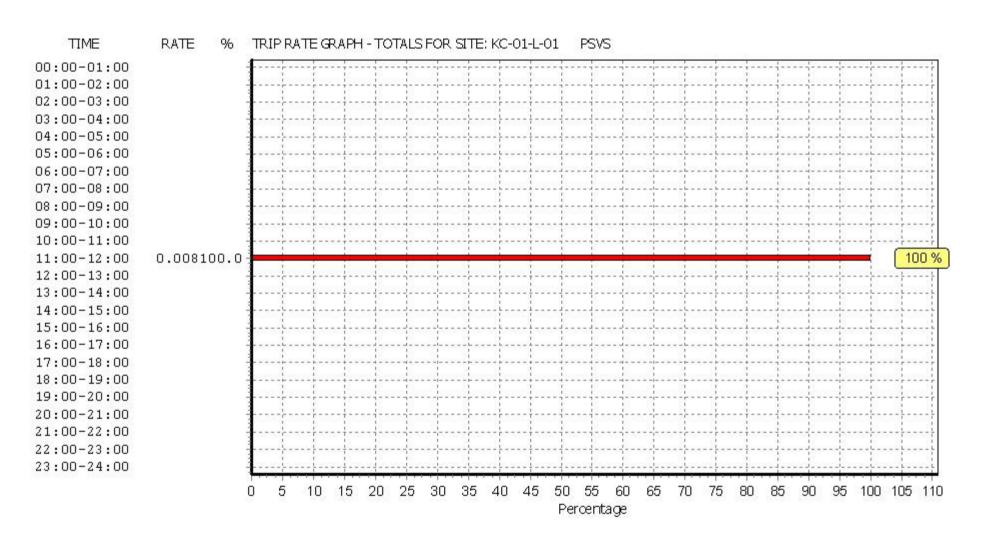
Trip rate parameter range selected: 1051 - 6275 (units: sqm) Survey date date range: 01/01/06 - 11/06/13

Number of weekdays (Monday-Friday): 5
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.







TRIP RATE for Land Use 01 - RETAIL/L - BUILDER'S MERCHANTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			[DEPARTURES		TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	5600	0.000	1	5600	0.000	1	5600	0.000
06:00 - 07:00	3	4224	0.000	3	4224	0.000	3	4224	0.000
07:00 - 08:00	5	4789	0.004	5	4789	0.004	5	4789	0.008
08:00 - 09:00	5	4789	0.000	5	4789	0.000	5	4789	0.000
09:00 - 10:00	5	4789	0.000	5	4789	0.000	5	4789	0.000
10:00 - 11:00	5	4789	0.000	5	4789	0.000	5	4789	0.000
11:00 - 12:00	5	4789	0.000	5	4789	0.000	5	4789	0.000
12:00 - 13:00	5	4789	0.000	5	4789	0.000	5	4789	0.000
13:00 - 14:00	5	4789	0.008	5	4789	0.004	5	4789	0.012
14:00 - 15:00	5	4789	0.000	5	4789	0.004	5	4789	0.004
15:00 - 16:00	5	4789	0.000	5	4789	0.000	5	4789	0.000
16:00 - 17:00	5	4789	0.000	5	4789	0.000	5	4789	0.000
17:00 - 18:00	5	4789	0.000	5	4789	0.000	5	4789	0.000
18:00 - 19:00	2	5300	0.000	2	5300	0.000	2	5300	0.000
19:00 - 20:00	1	5600	0.000	1	5600	0.000	1	5600	0.000
20:00 - 21:00	1	5600	0.000	1	5600	0.000	1	5600	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.012			0.012			0.024

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

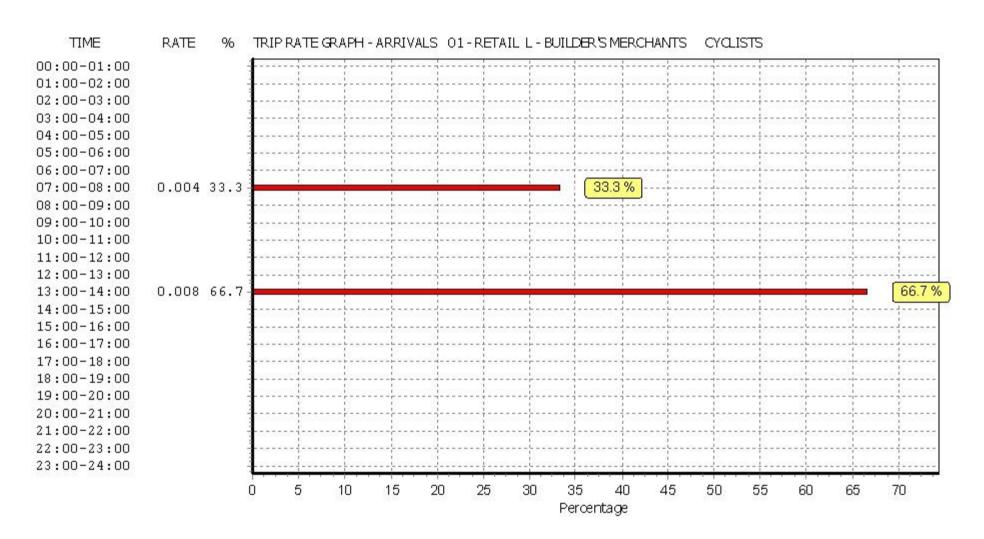
Trip rate parameter range selected: 1051 - 6275 (units: sqm) Survey date date range: 01/01/06 - 11/06/13

Number of weekdays (Monday-Friday): 5
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.

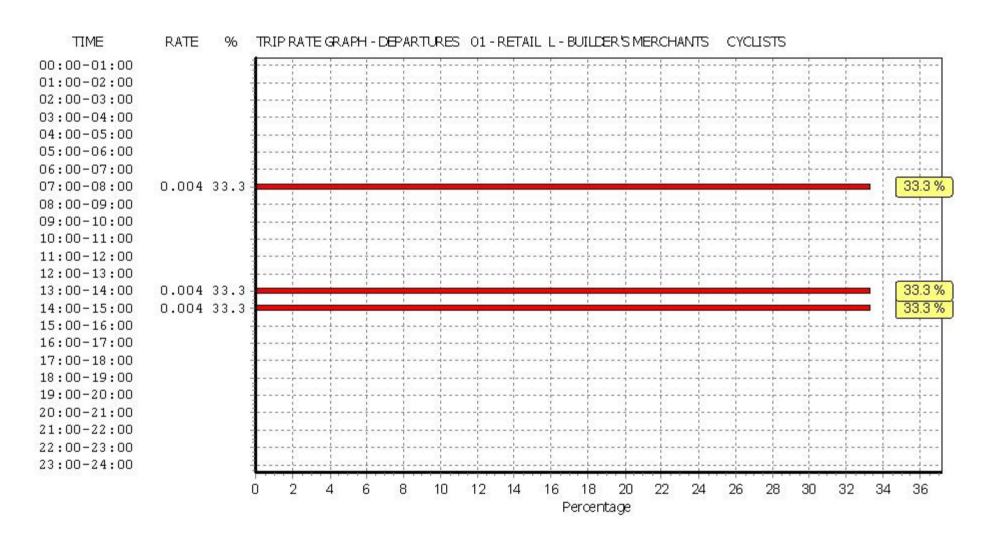
Builders Merchant
JMP Consultants Ltd. Bothwell Street Glasgow

Bothwell Street Glasgow Licence No: 846406



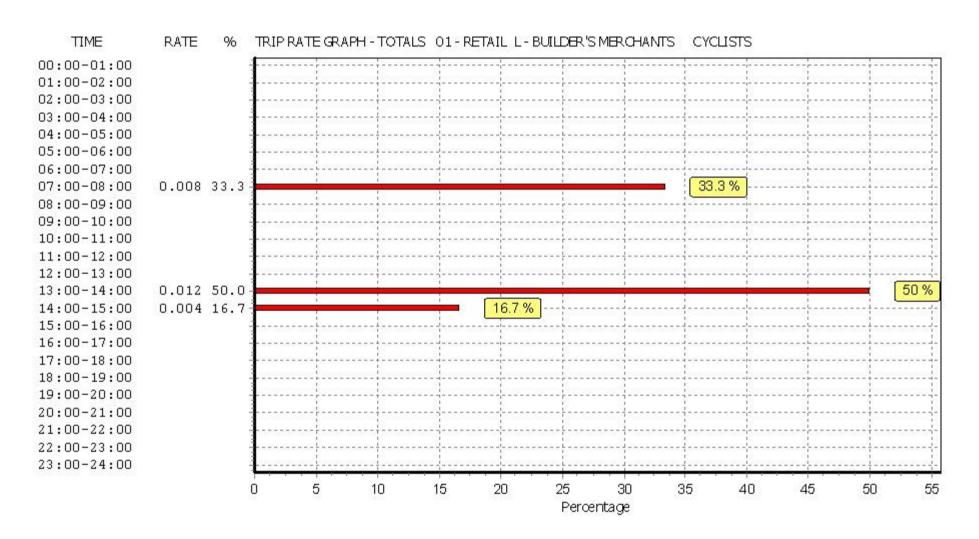
Builders Merchant

JMP Consultants Ltd. Bothwell Street Glasgow Licence No: 846406



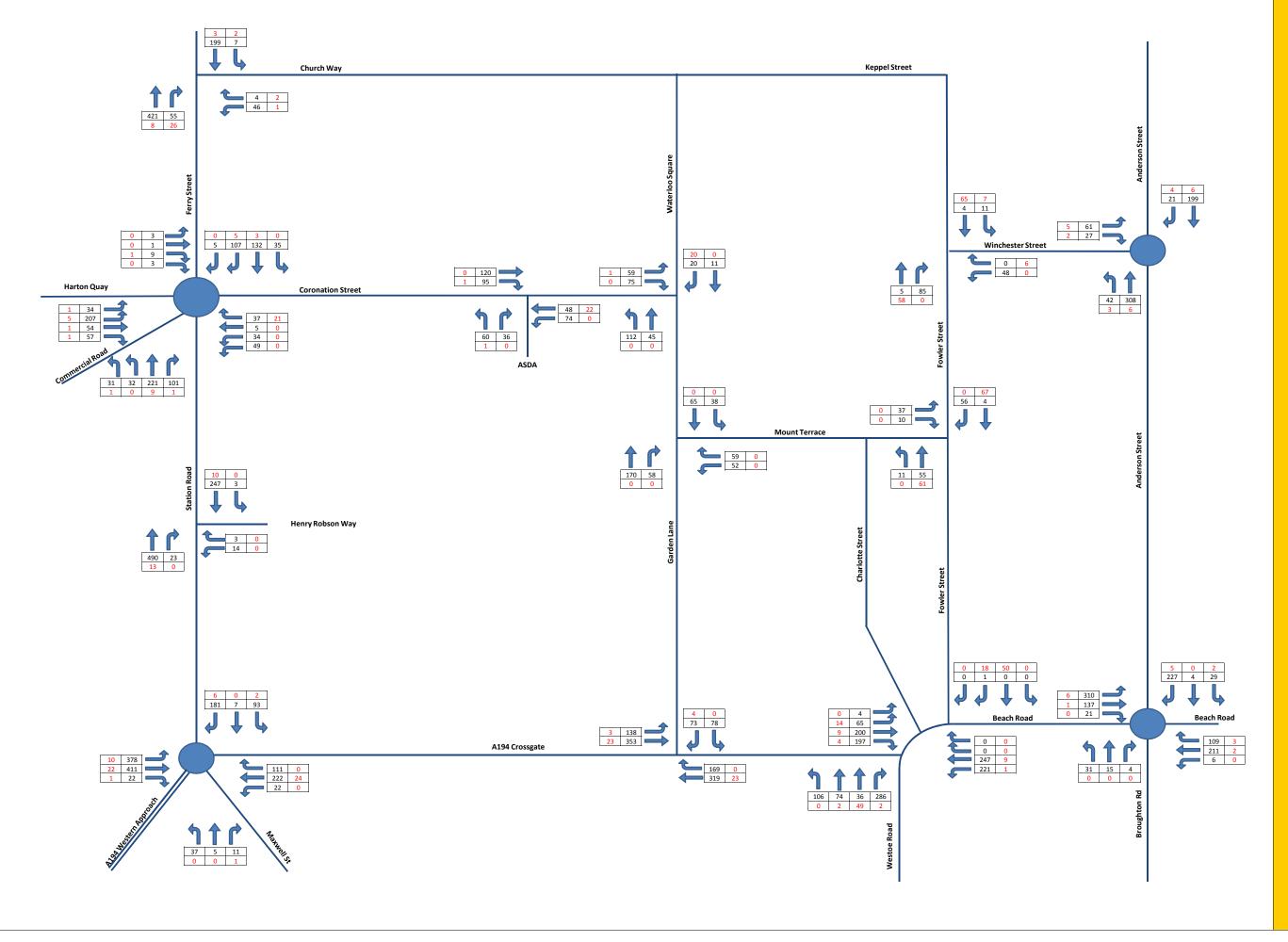
Builders Merchant JMP Consultants Ltd. Bothwell Street Glasgow

Licence No: 846406



Appendix D

TRAFFIC FLOW DIAGRAMS



Project:

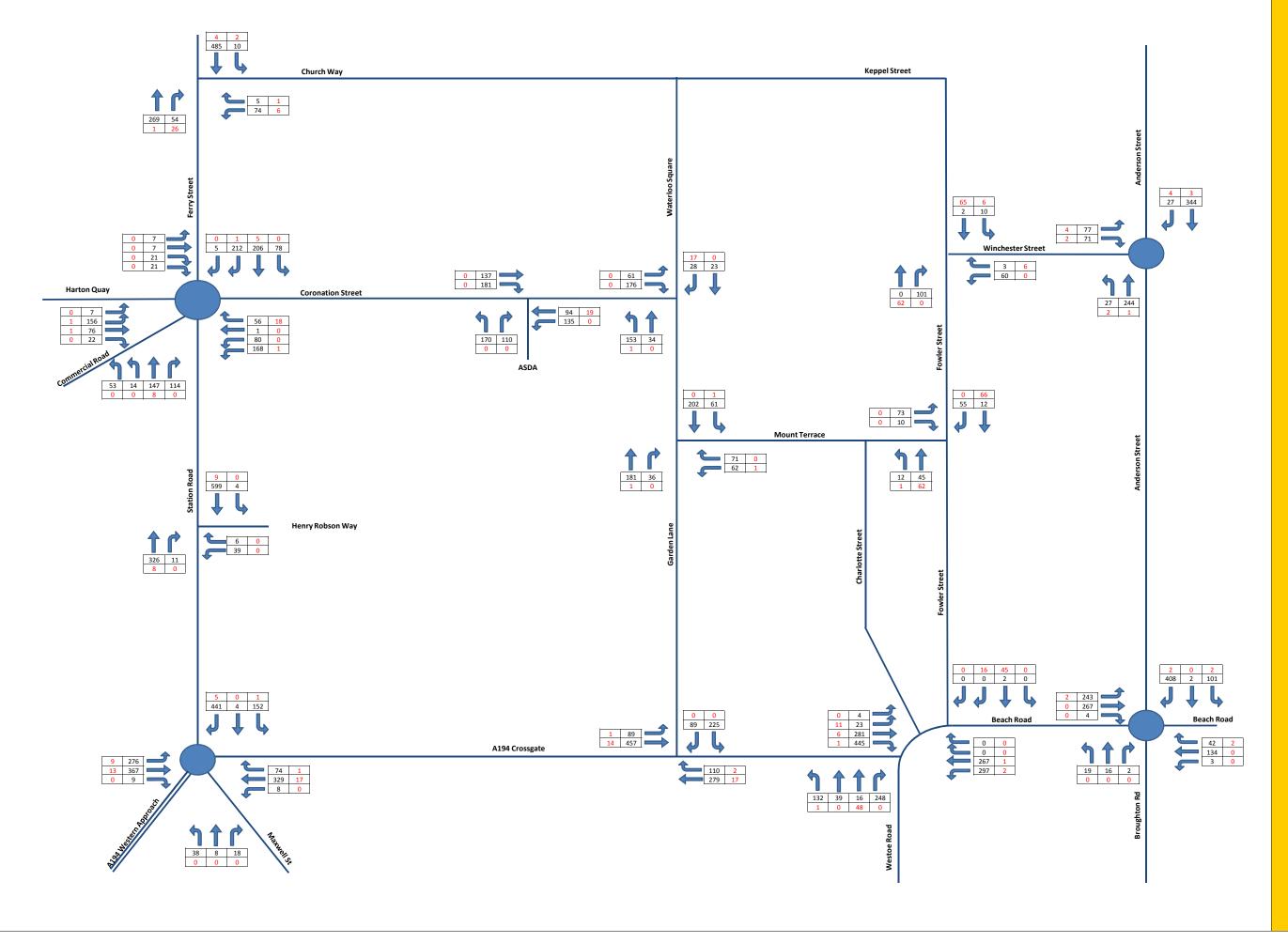
NEA1239 South Shields Town Centre Regeneration

Highway Network:
Existing Network

Title:

Base Traffic - AM Peak - (08:30-09:30)

Key: Cars HGV + PSV

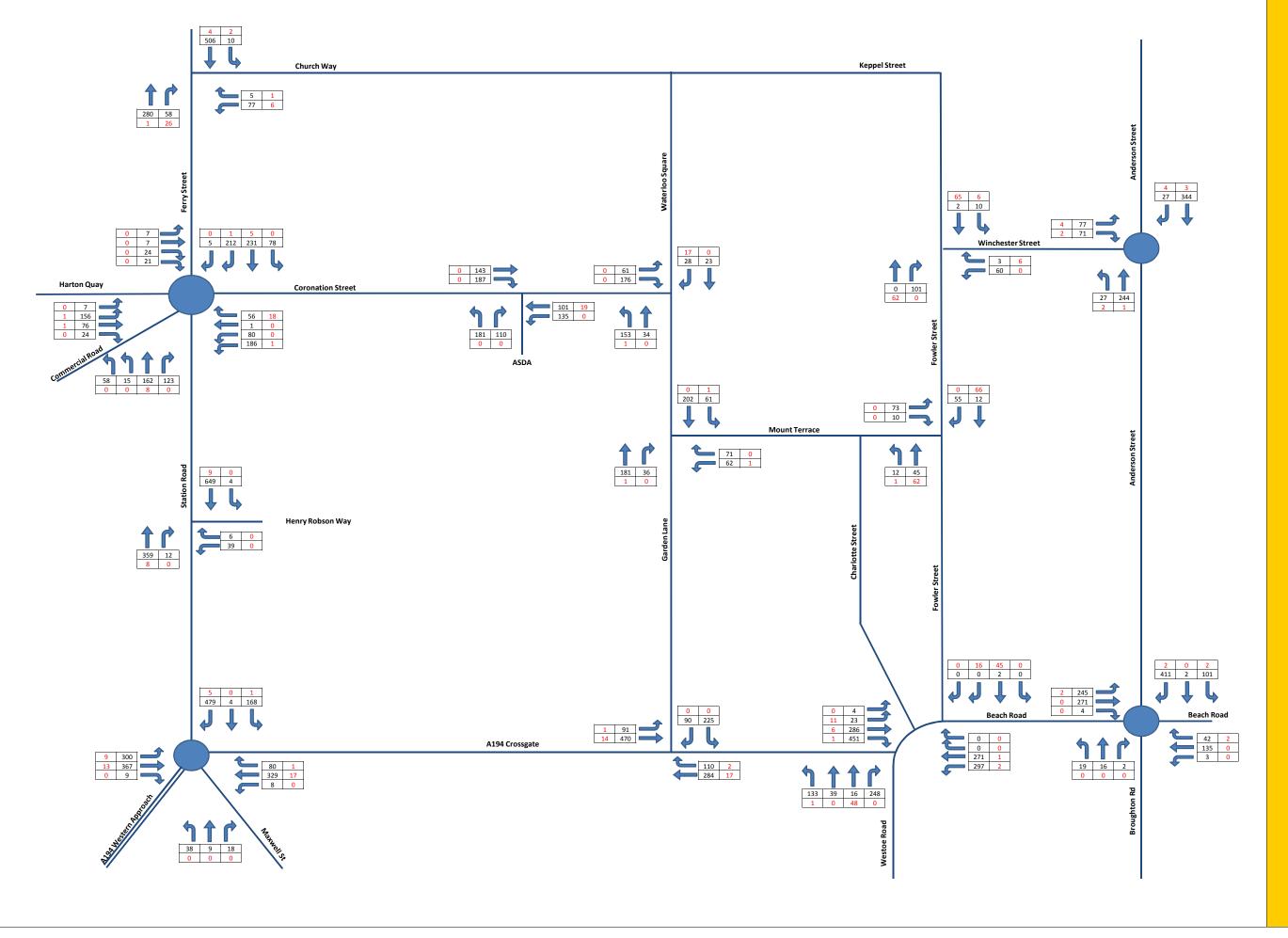


Project:
NEA1239 South Shields Town Centre Regeneration

Highway Network: Existing Network Title:

Base Traffic - PM Peak - (16:45-17:45)

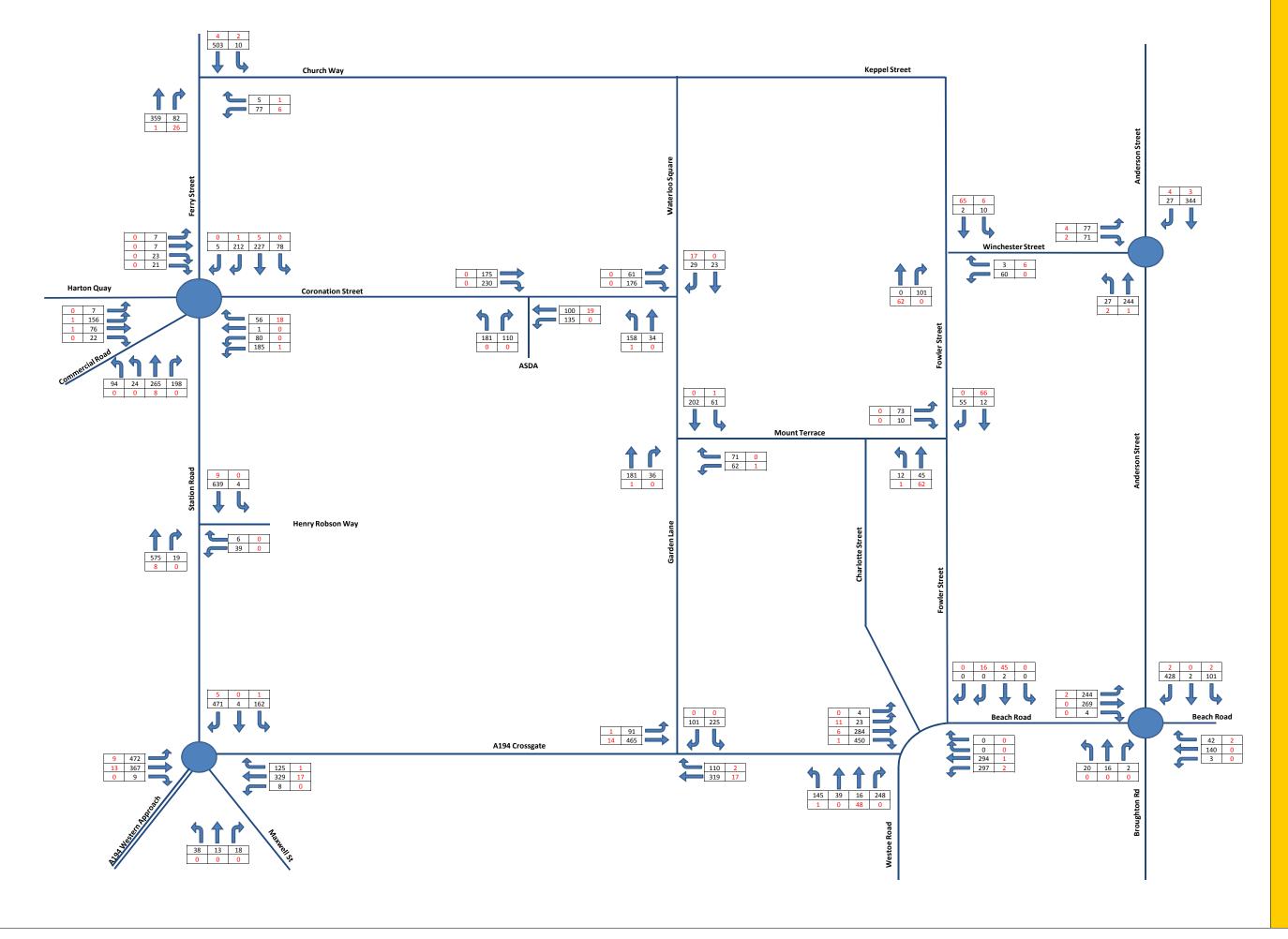
Key: Cars HGV + PSV



Project:
NEA1239 South Shields Town Centre Regeneration

Highway Network: Existing Network Title:
Base Traffic - Friday PM Peak - (16:45-17:45)

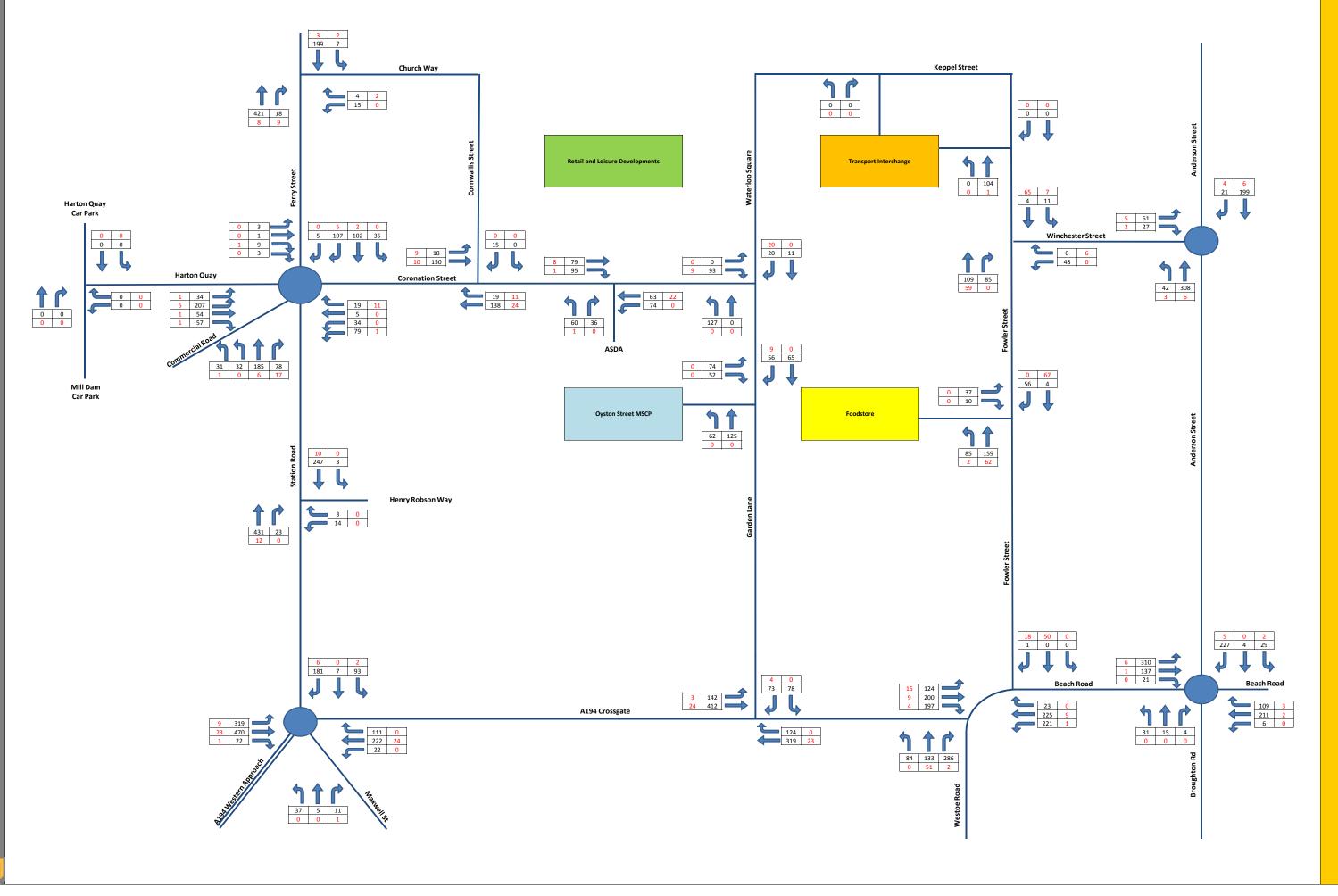
Key: Cars HGV + PSV



Project:
NEA1239 South Shields Town Centre Regeneration

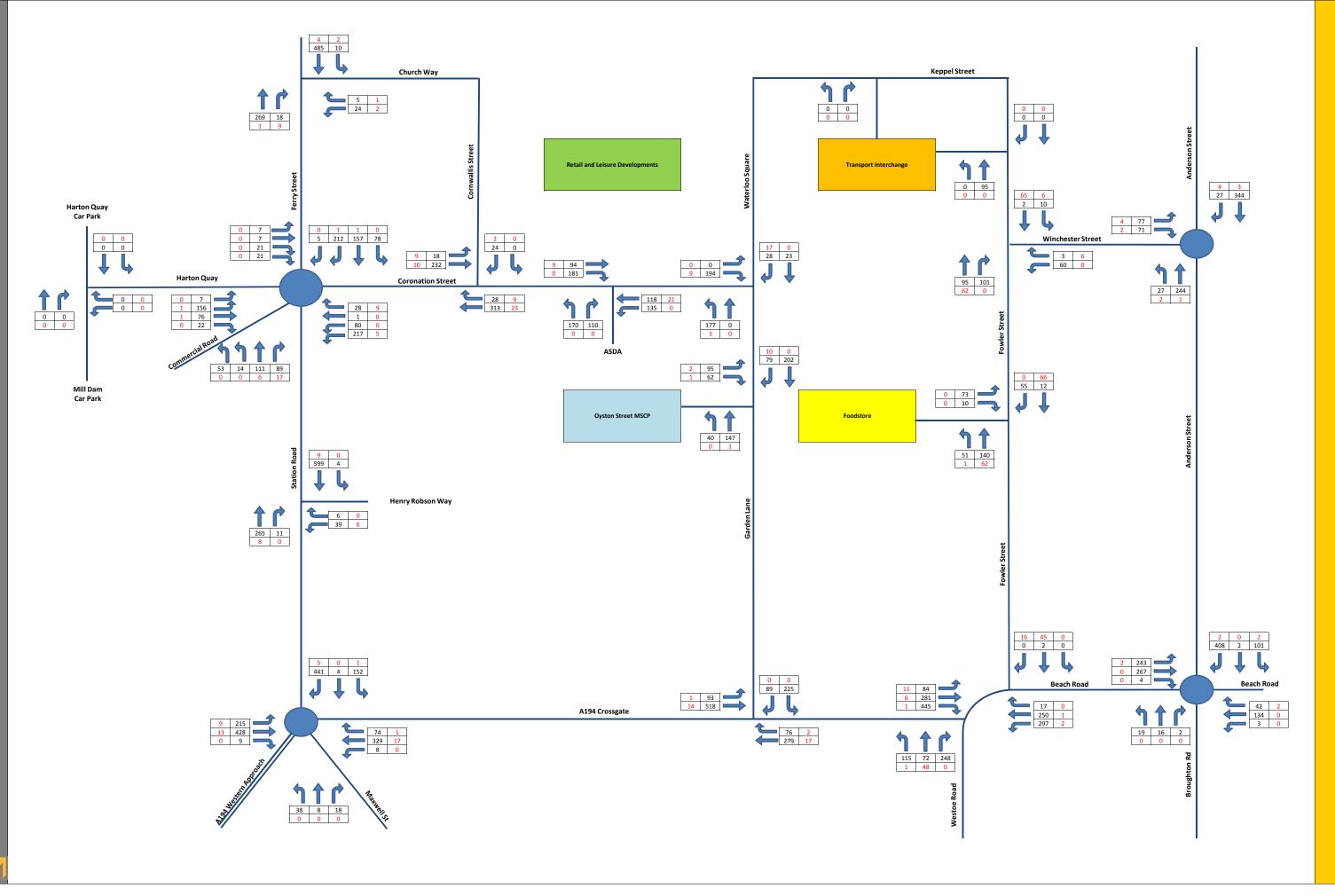
Highway Network: Existing Network Title:
Base Traffic - Saturday Peak - (12:00-13:00)

Key: Cars HGV + PSV



Highway Network: Masterplan Network Title:

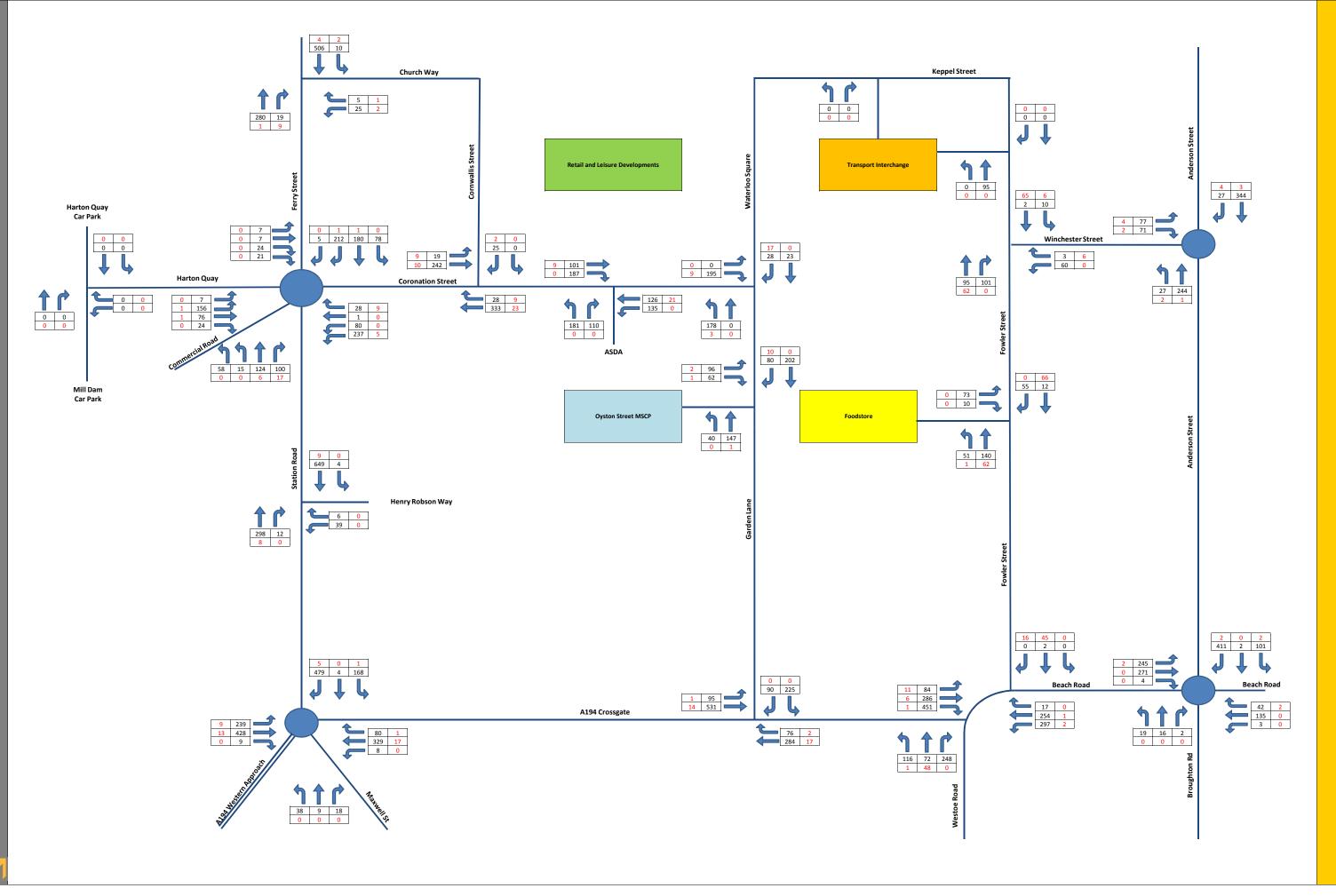
Reassigned Base Traffic - AM Peak - (08:30-09:30)



Highway Network: Masterplan Network

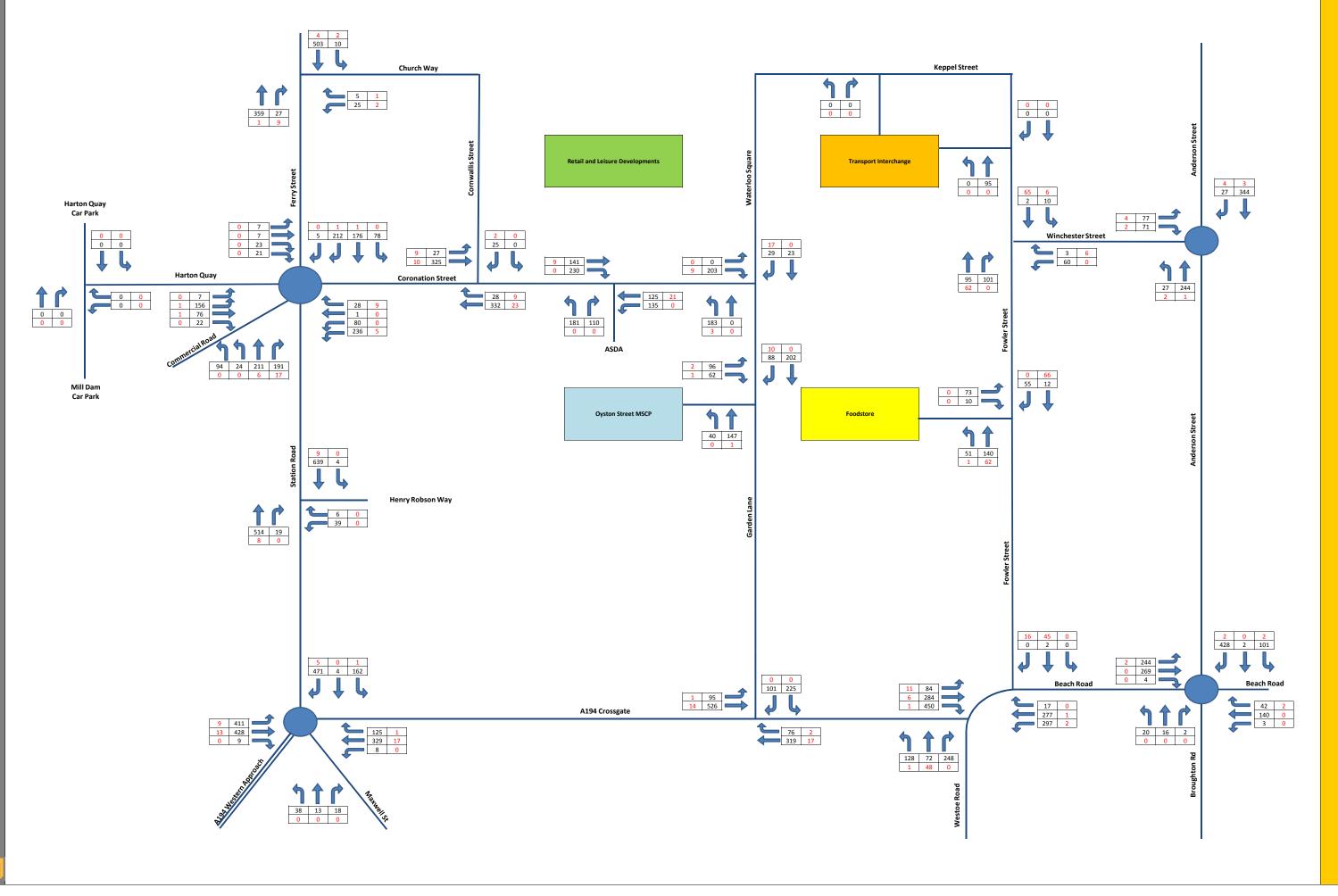
Reassigned Base Traffic - PM Peak - (16:45-17:45)

Title:



Highway Network: Masterplan Network Title:

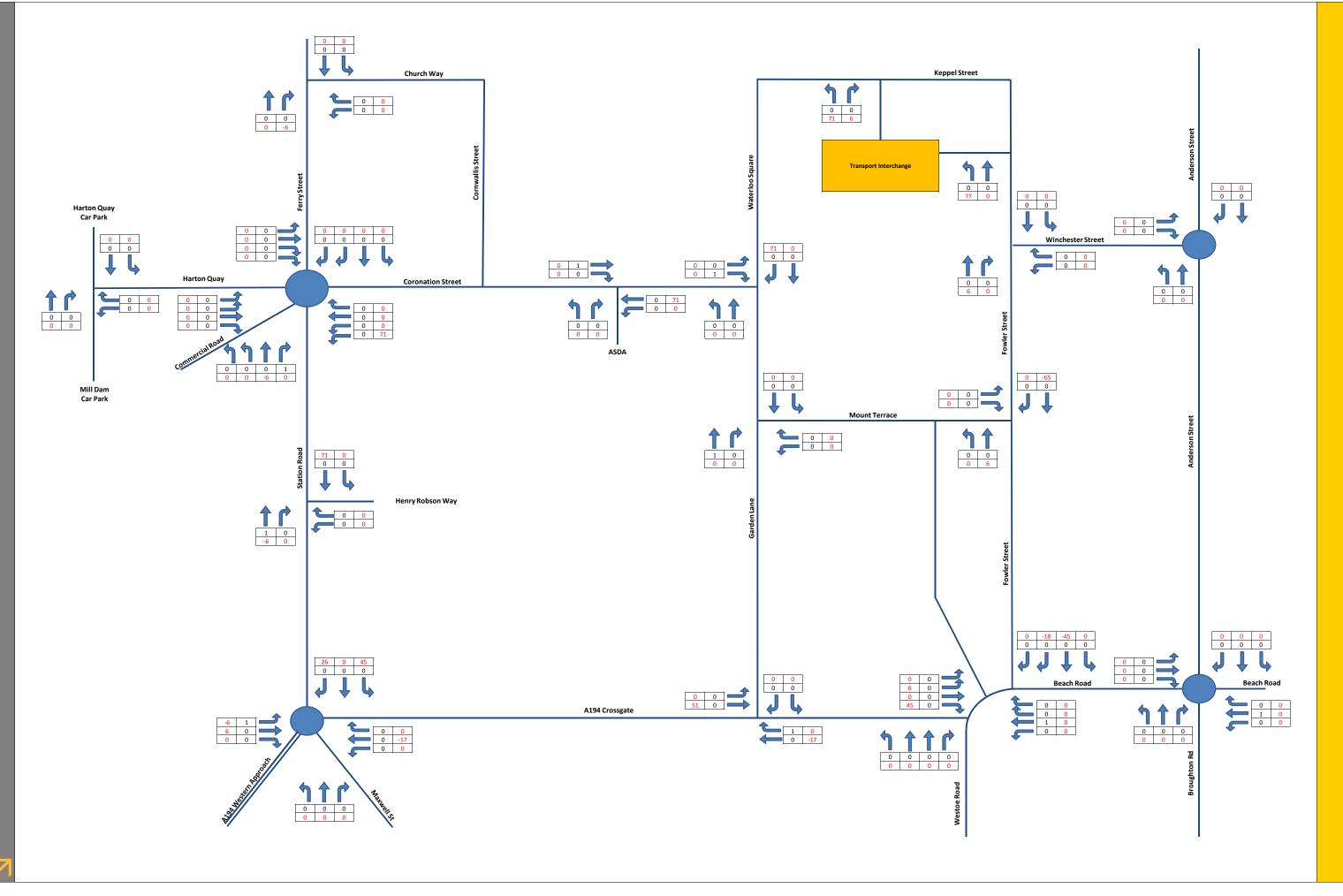
Reassigned Base Traffic - Friday PM Peak - (16:45-17:45)



Highway Network: Masterplan Network

Reassigned Base Traffic - Saturday Peak - (12:00-13:00)

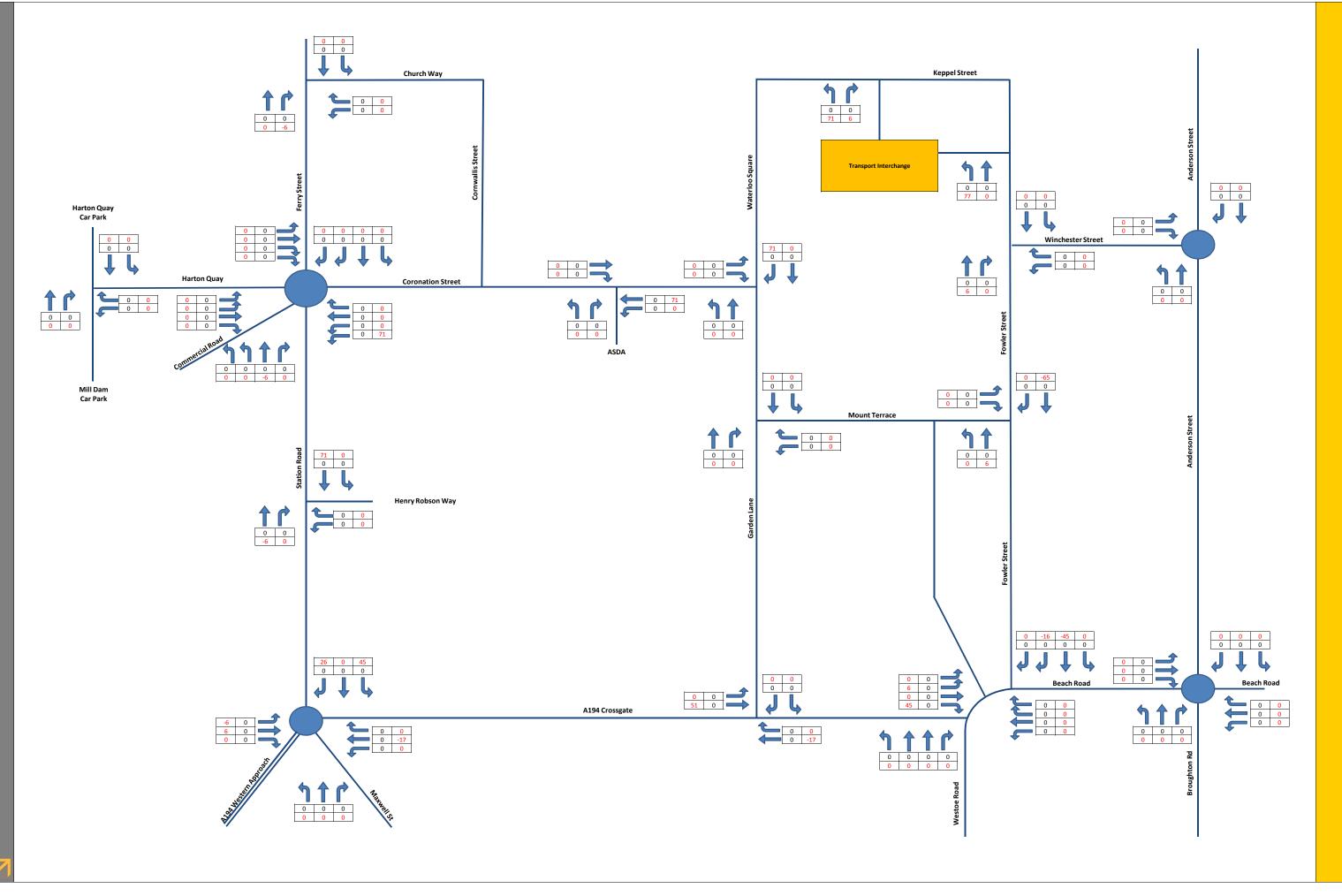
Title:



Project: NEA1239 South Shields Town Centre Regeneration

Highway Network: Interchange Network Title:

Key: Cars

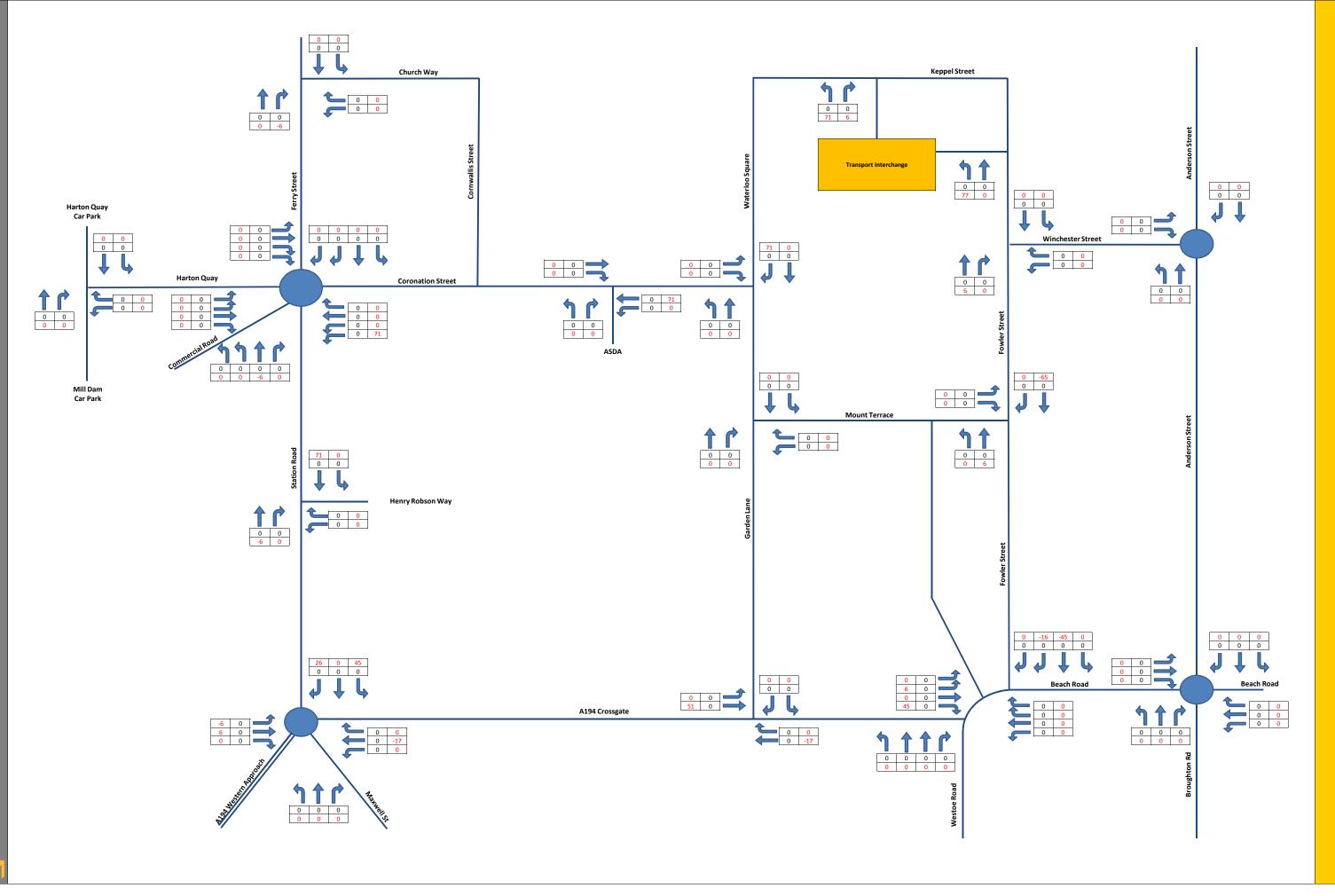


Project:
NEA1239 South Shields Town Centre Regeneration

Highway Network:
Interchange Network

Title:

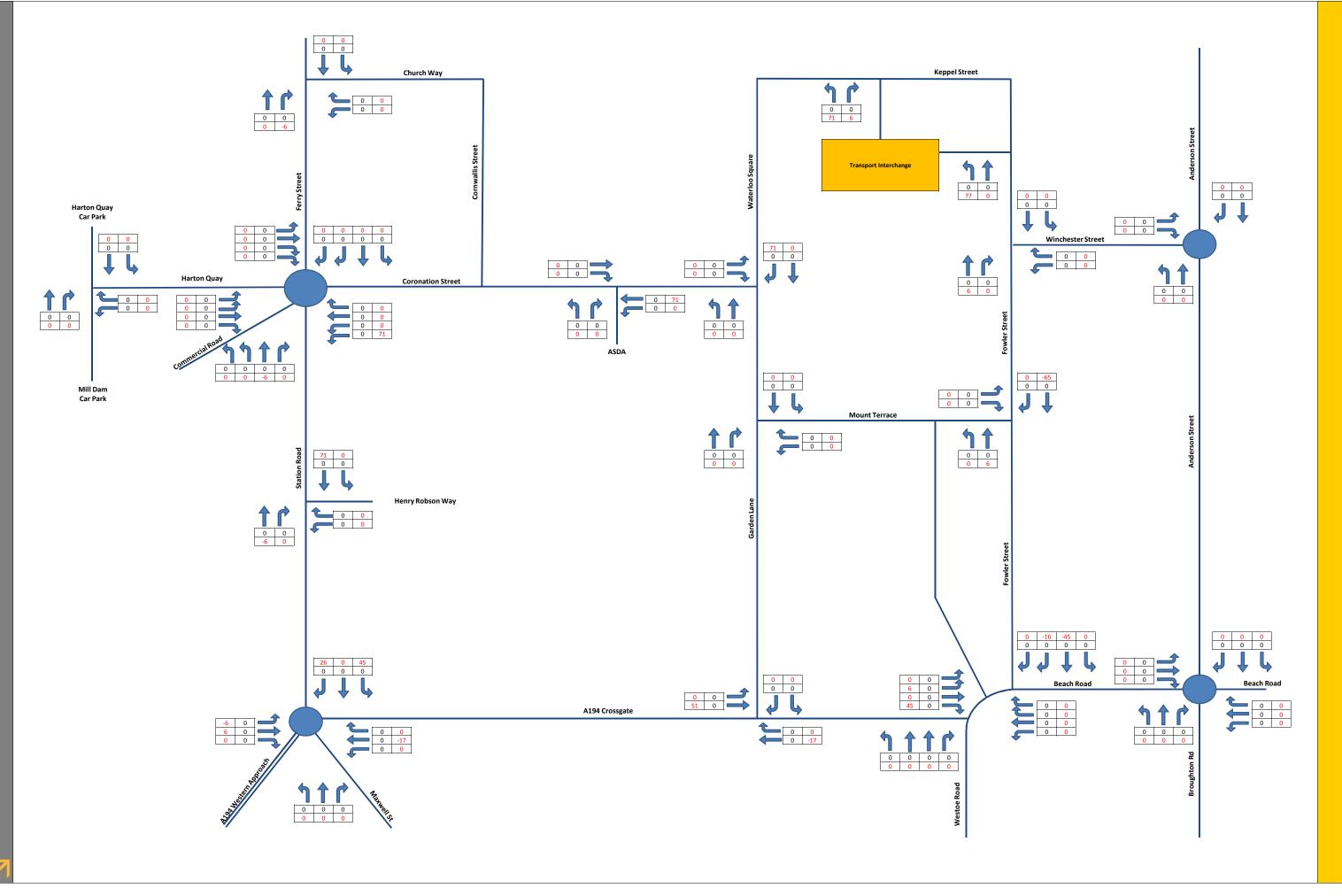
Interchange Development Flows - PM Peak - (16:45-17:45)



Project:
NEA1239 South Shields Town Centre Regeneration

Highway Network:
Interchange Network

Title:
Interchange Development Flows - Friday PM Peak - (16:45-17:45)

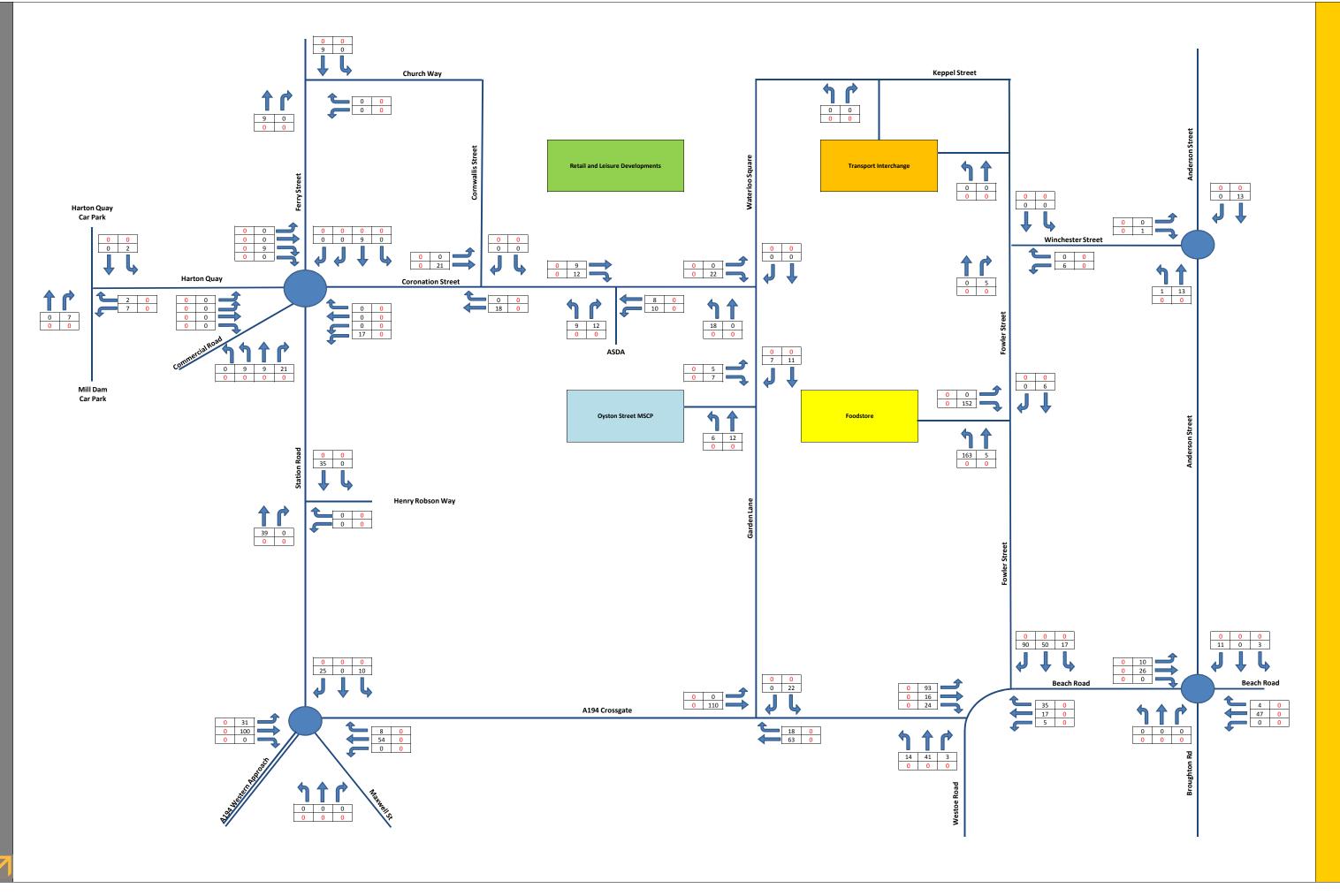


Project:
NEA1239 South Shields Town Centre Regeneration

Highway Network:
Interchange Network

Title:

Interchange Development Flows - Saturday Peak - (12:00-13:00)



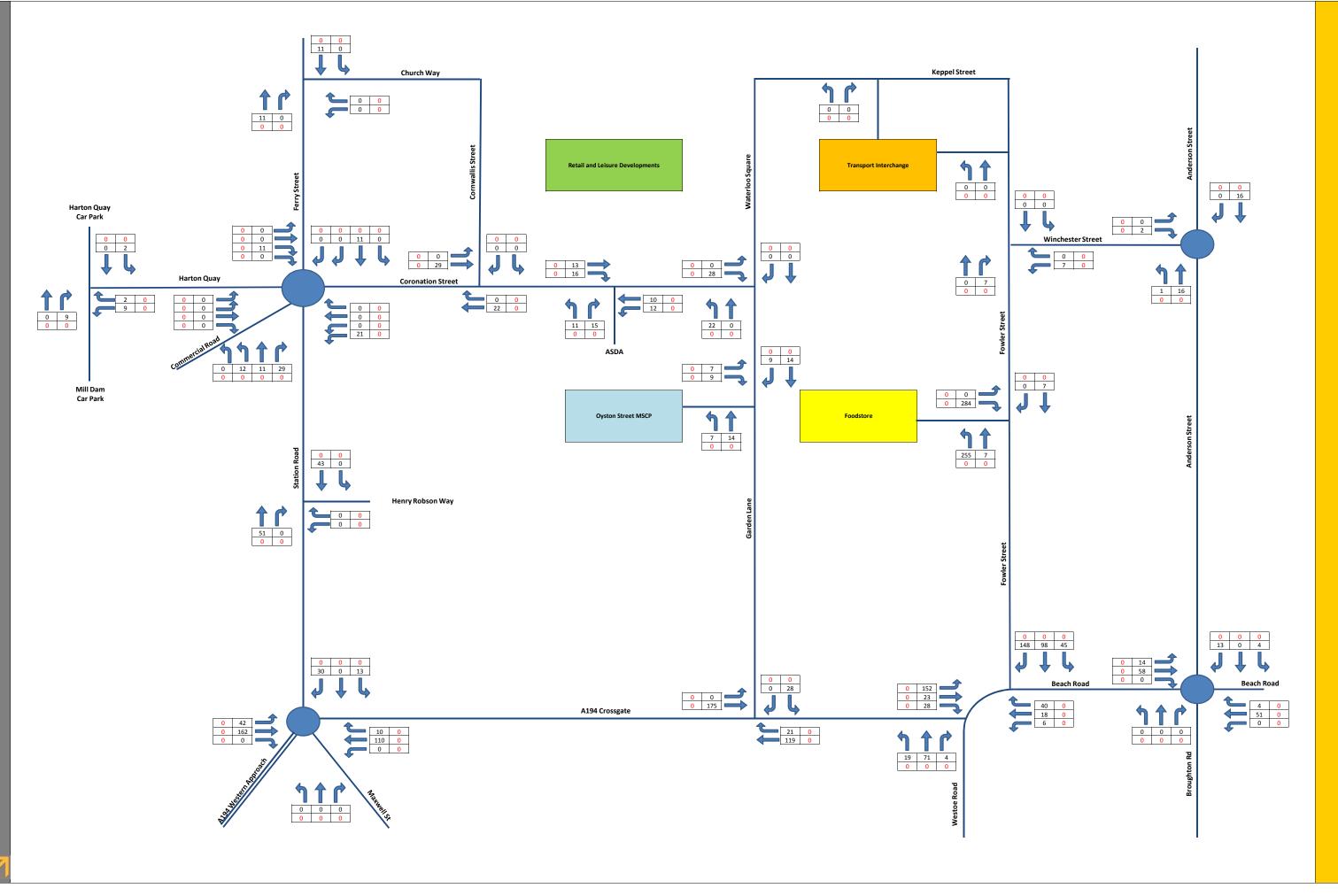
Project:
NEA1239 South Shields Town Centre Regeneration

Highway Network:

Masterplan Network

Title:

Masterplan Development Flows - AM Peak - (08:30-09:00)



Client:

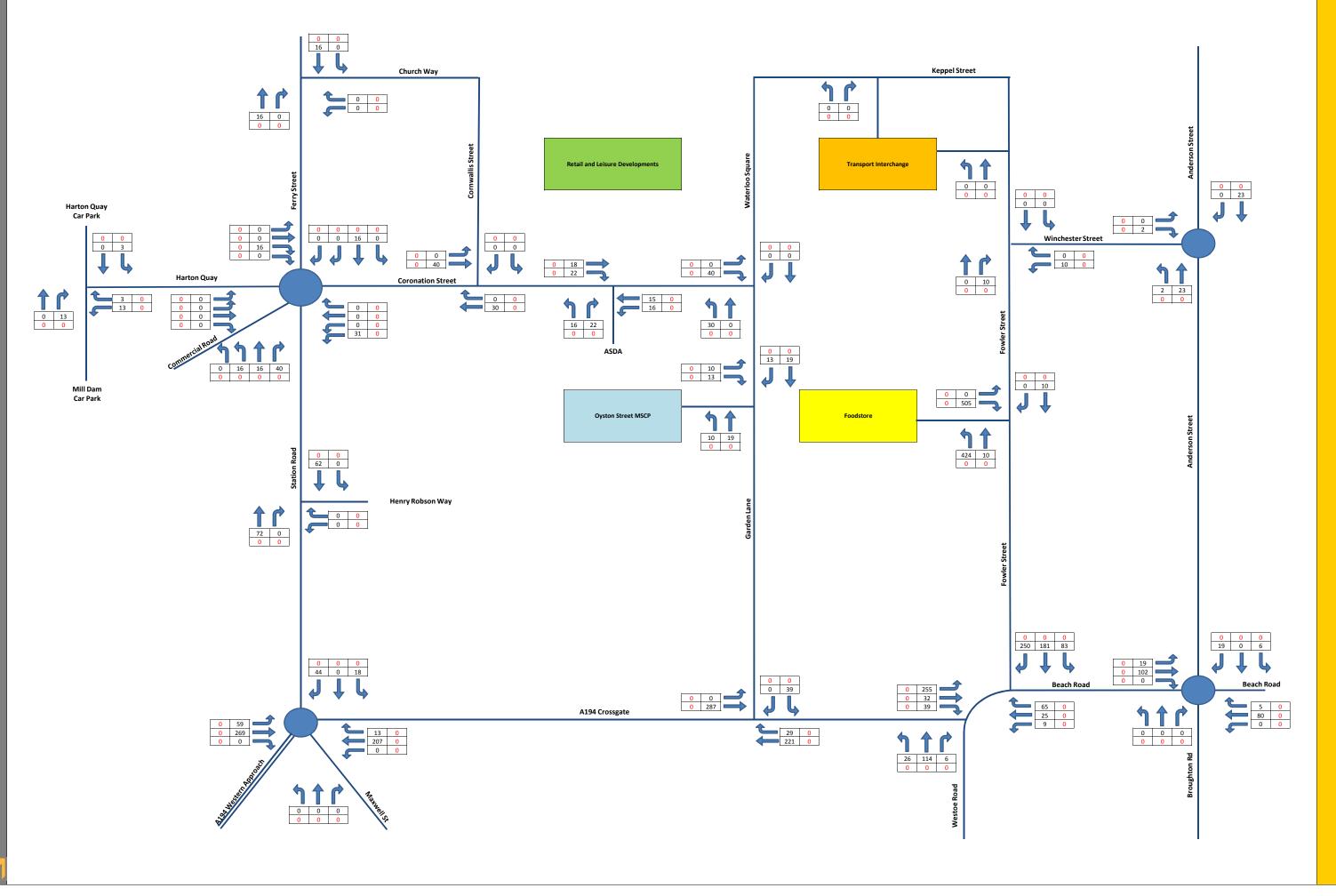
MUSE Developments

NEA1239 South Sh

Project:
NEA1239 South Shields Town Centre Regeneration

Highway Network: Masterplan Network Title:

Masterplan Development Flows - PM Peak - (16:45-17:45)



Project:

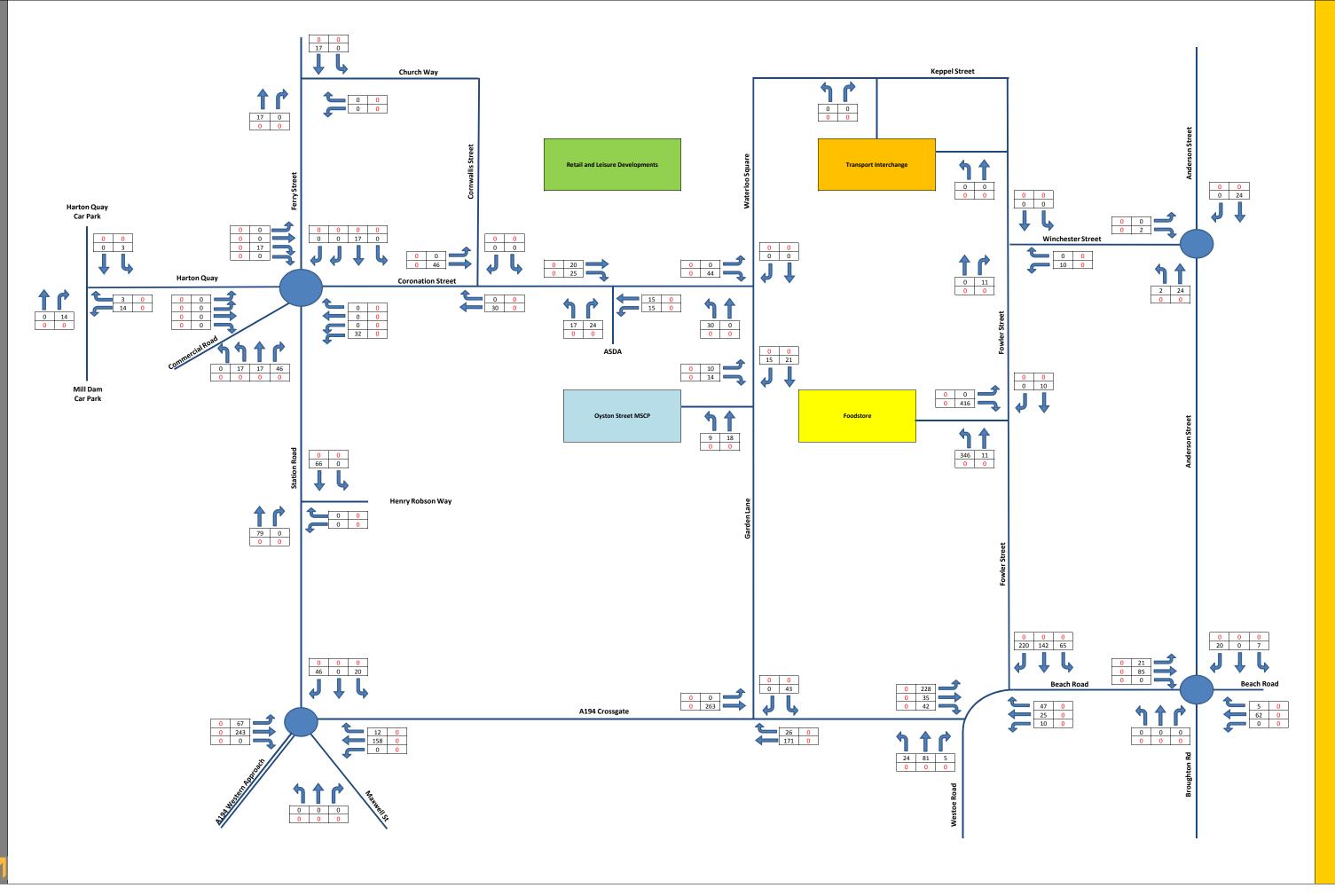
NEA1239 South Shields Town Centre Regeneration

Highway Network:

Masterplan Network

Title:

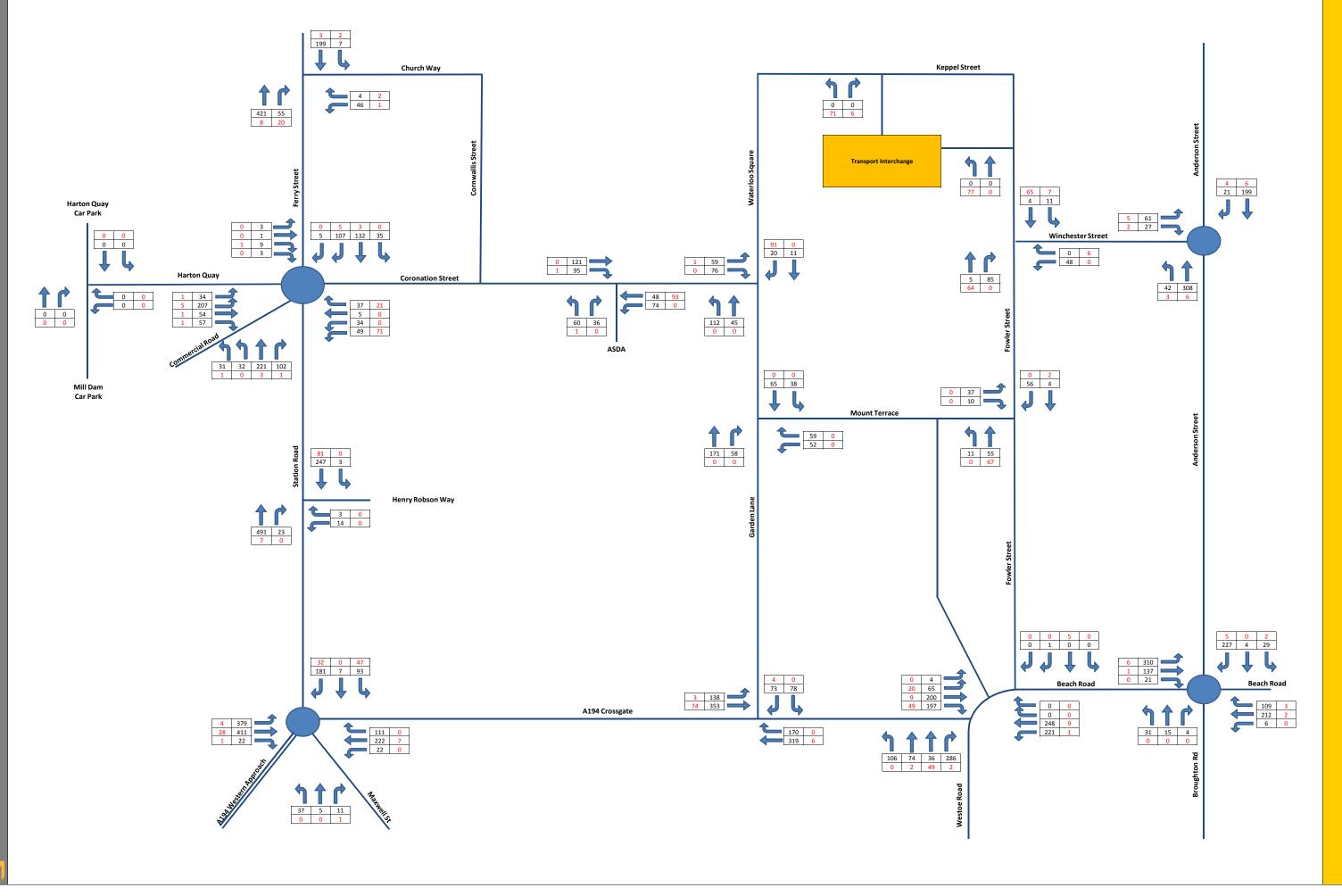
Masterplan Development Flows - Friday PM Peak - (16:45-17:45)



Project:
NEA1239 South Shields Town Centre Regeneration

Highway Network: Masterplan Network Title:

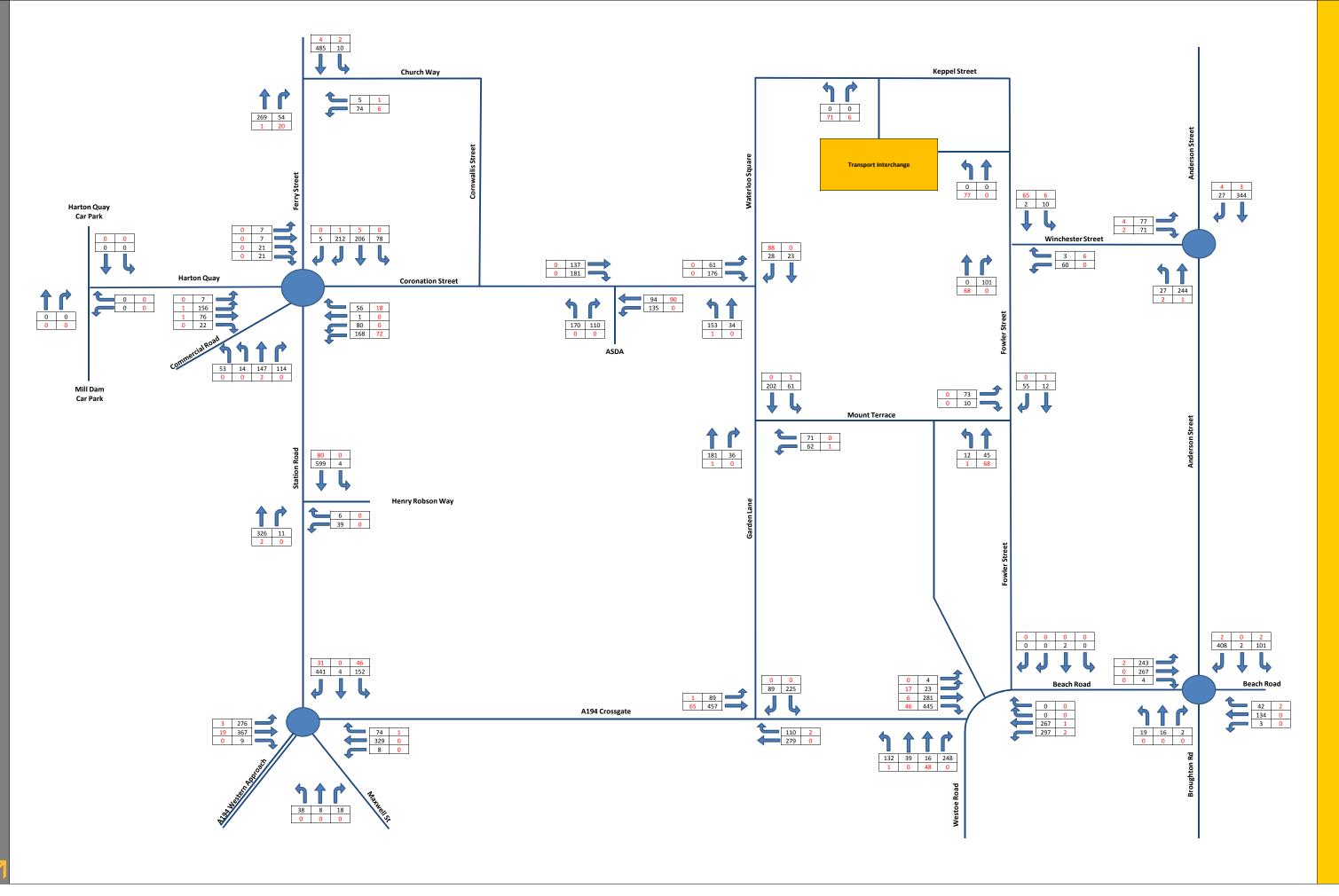
Masterplan Development Flows - Saturday Peak (12:00-13:00)



Client: Project:

MUSE Developments NEA1239 South Shields Town Centre Regeneration

Highway Network: Interchange Network Title:
Base + Interchange - AM Peak - 08:30-09:30



Project:
NEA1239 South Shields Town Centre Regeneration

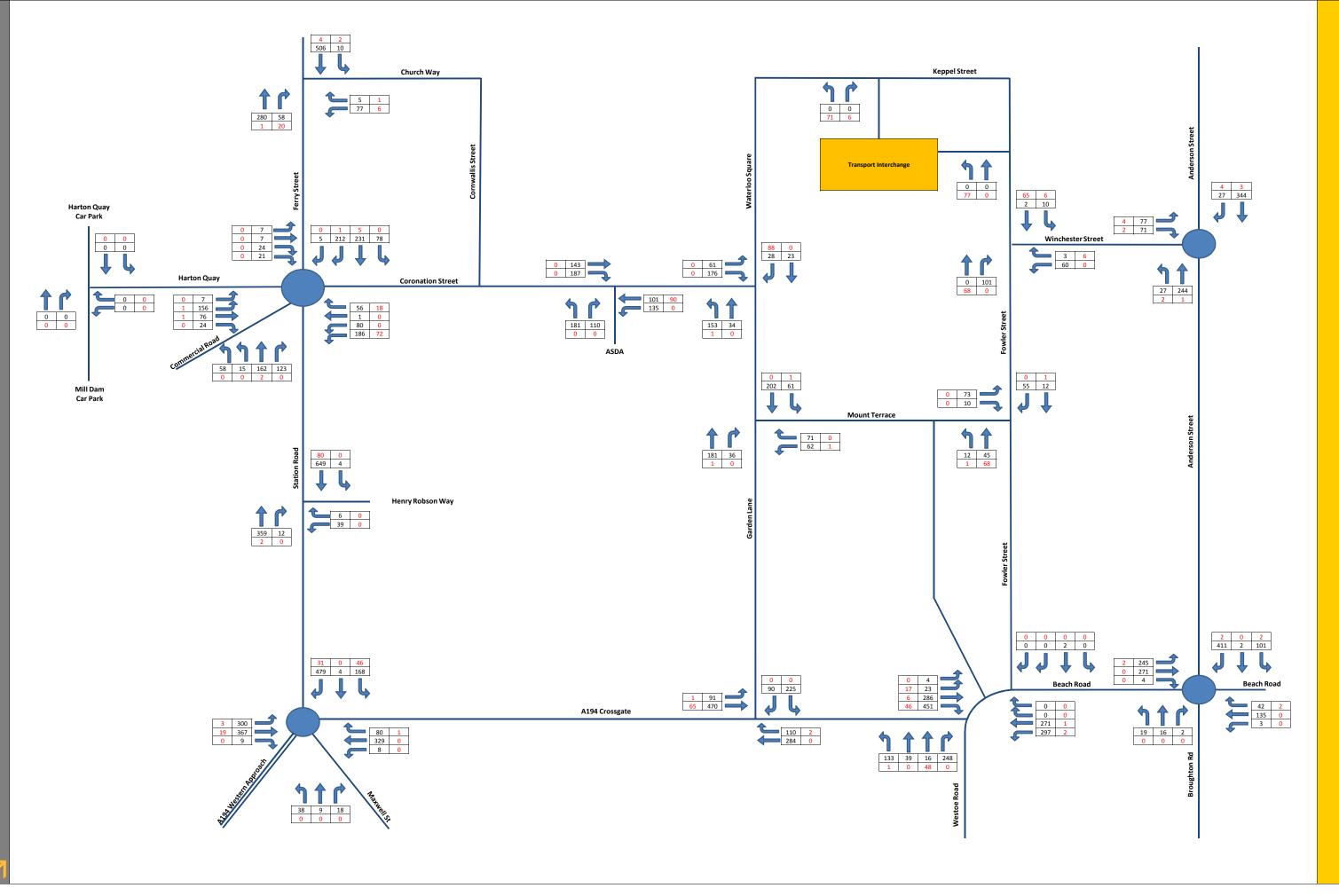
Highway Network:
Interchange Network

Title:

Base + Interchange - PM Peak (16:45-17:45)

Key: Cars HGV + PSV

NEA1239/TF/18



Project:
NEA1239 South Shields Town Centre Regeneration

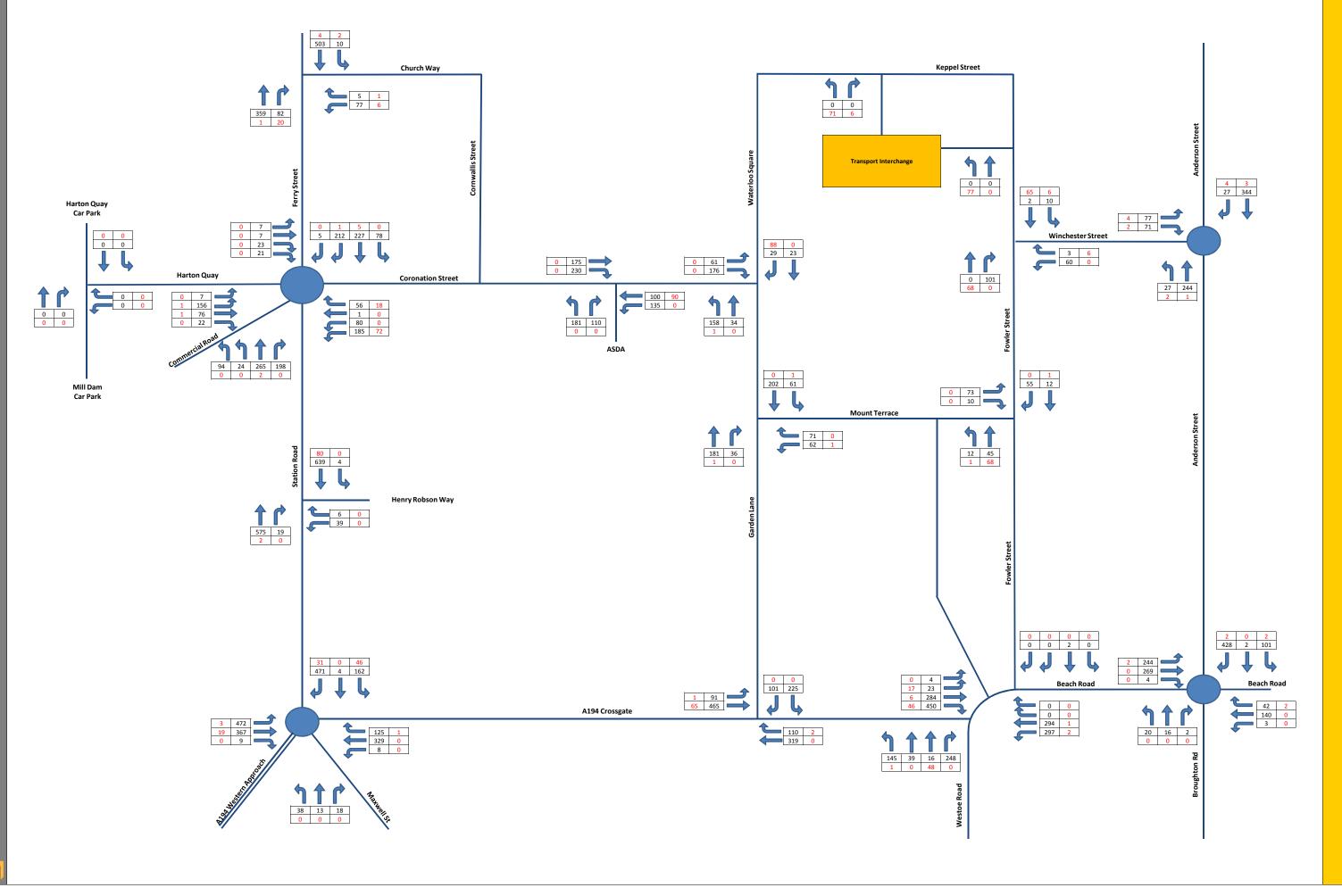
Highway Network:
Interchange Network

Title:

Base + Interchange - Friday PM Peak - (16:45-17:45)

Key: Cars HGV + PSV

NEA1239/TF/19



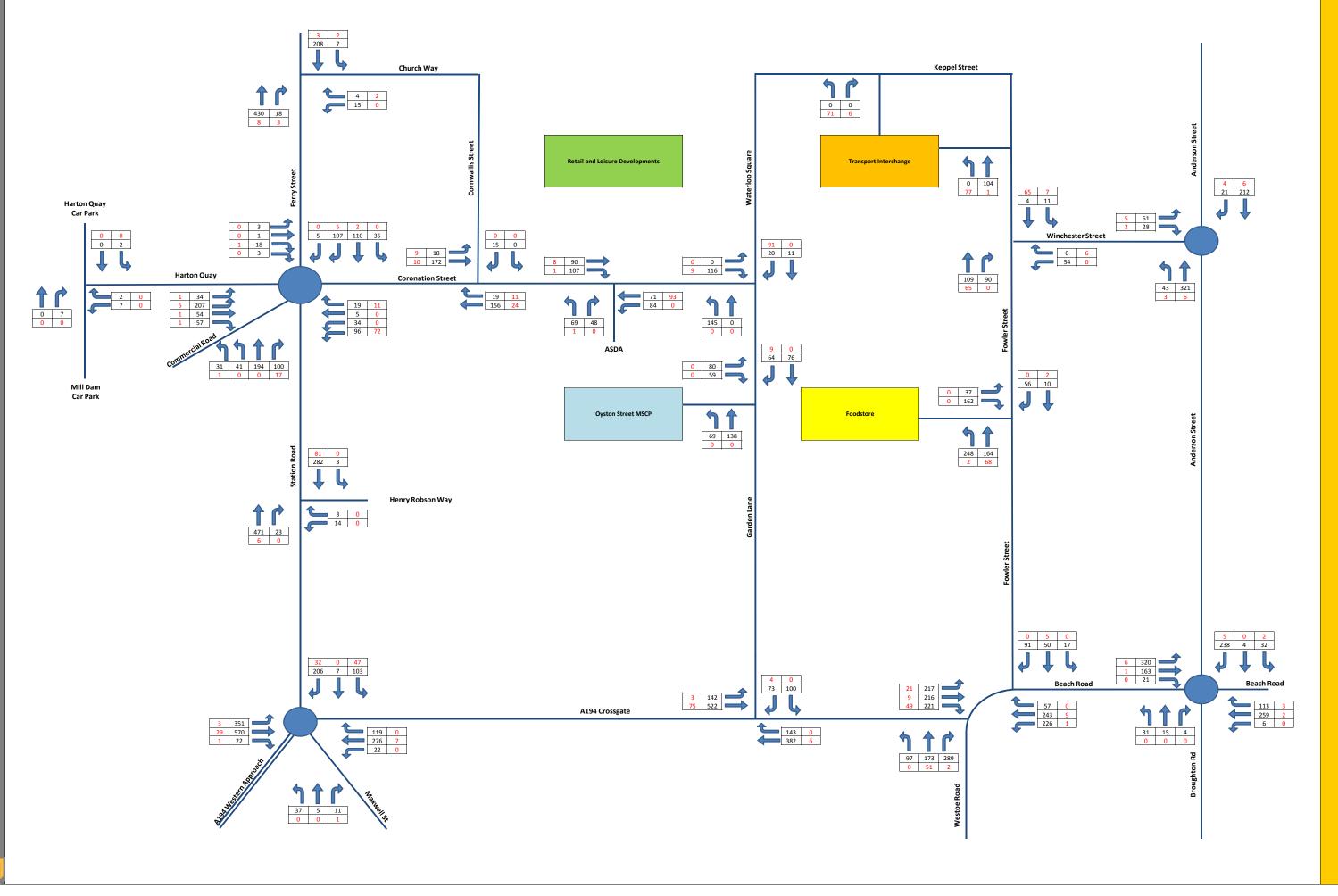
Project:
NEA1239 South Shields Town Centre Regeneration

Highway Network:
Interchange Network

Title:
Base + Interchange - Saturday Peak - (12:00-13:00)

Key: Cars HGV + PSV

NEA1239/TF/20



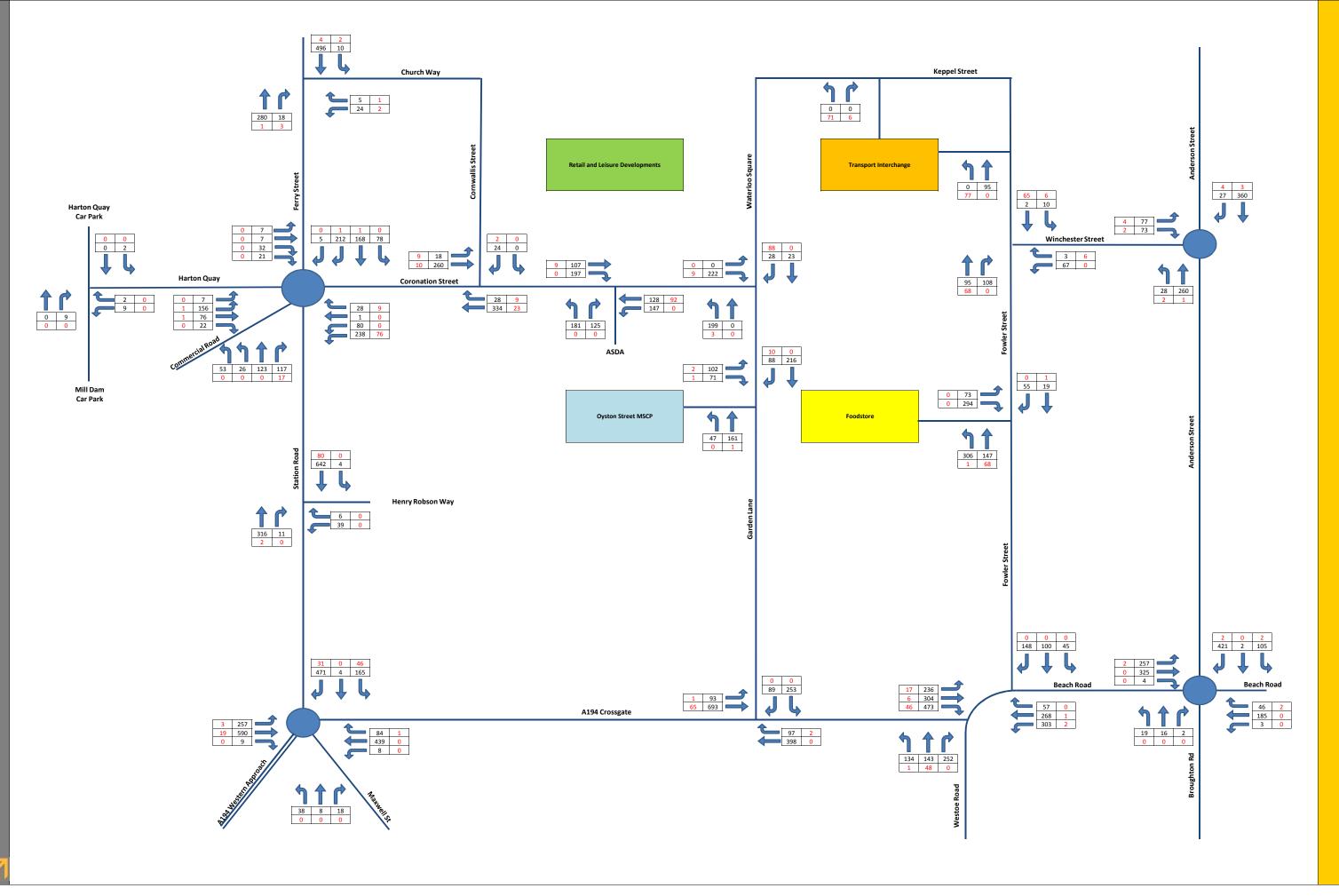
Project:
NEA1239 South Shields Town Centre Regeneration

Highway Network:

Masterplan Network

Title:

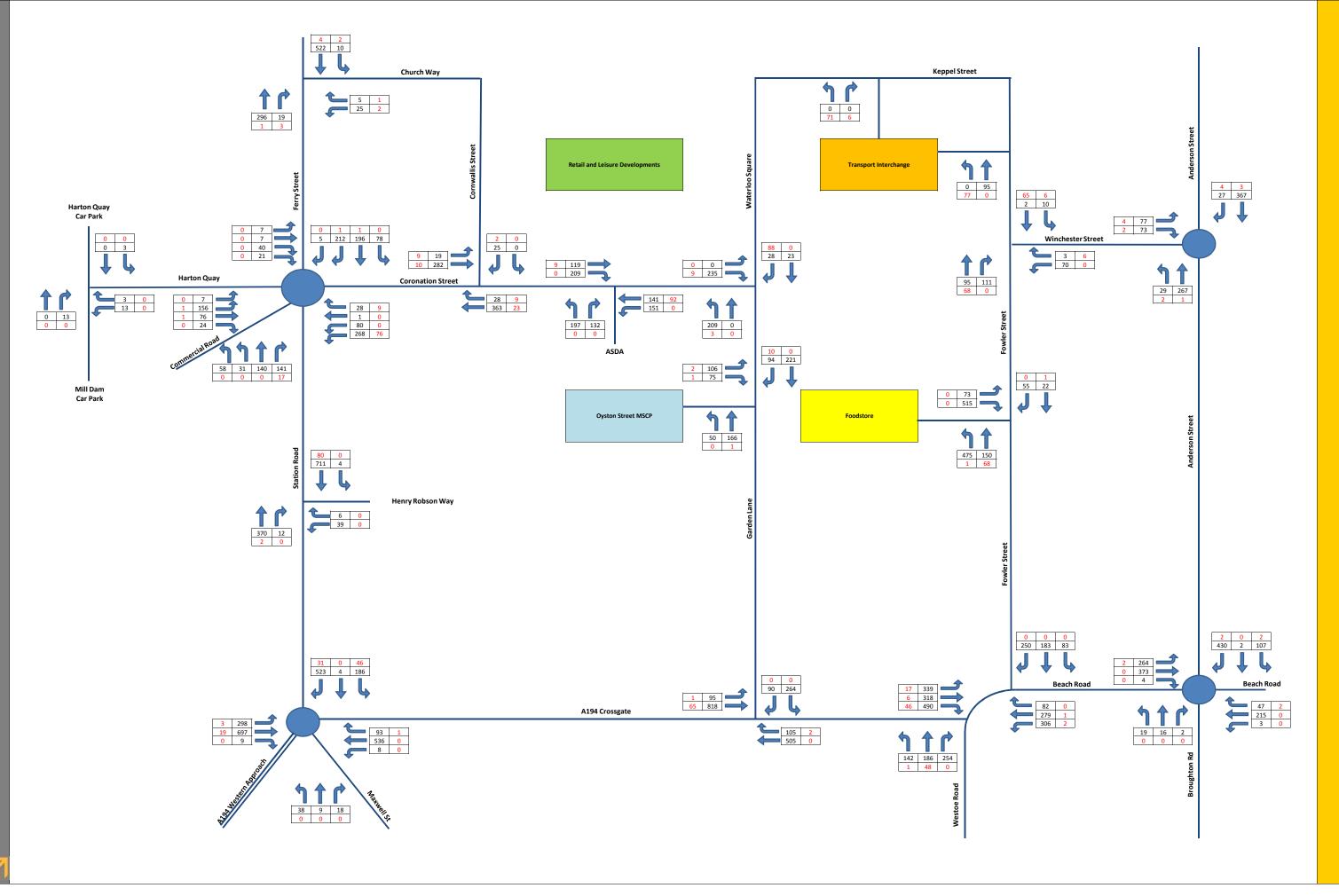
Reassigned Base + Interchange + Masterplan - AM Peak - (08:30-09:30)



Project:
NEA1239 South Shields Town Centre Regeneration

Highway Network: Masterplan Network Title:

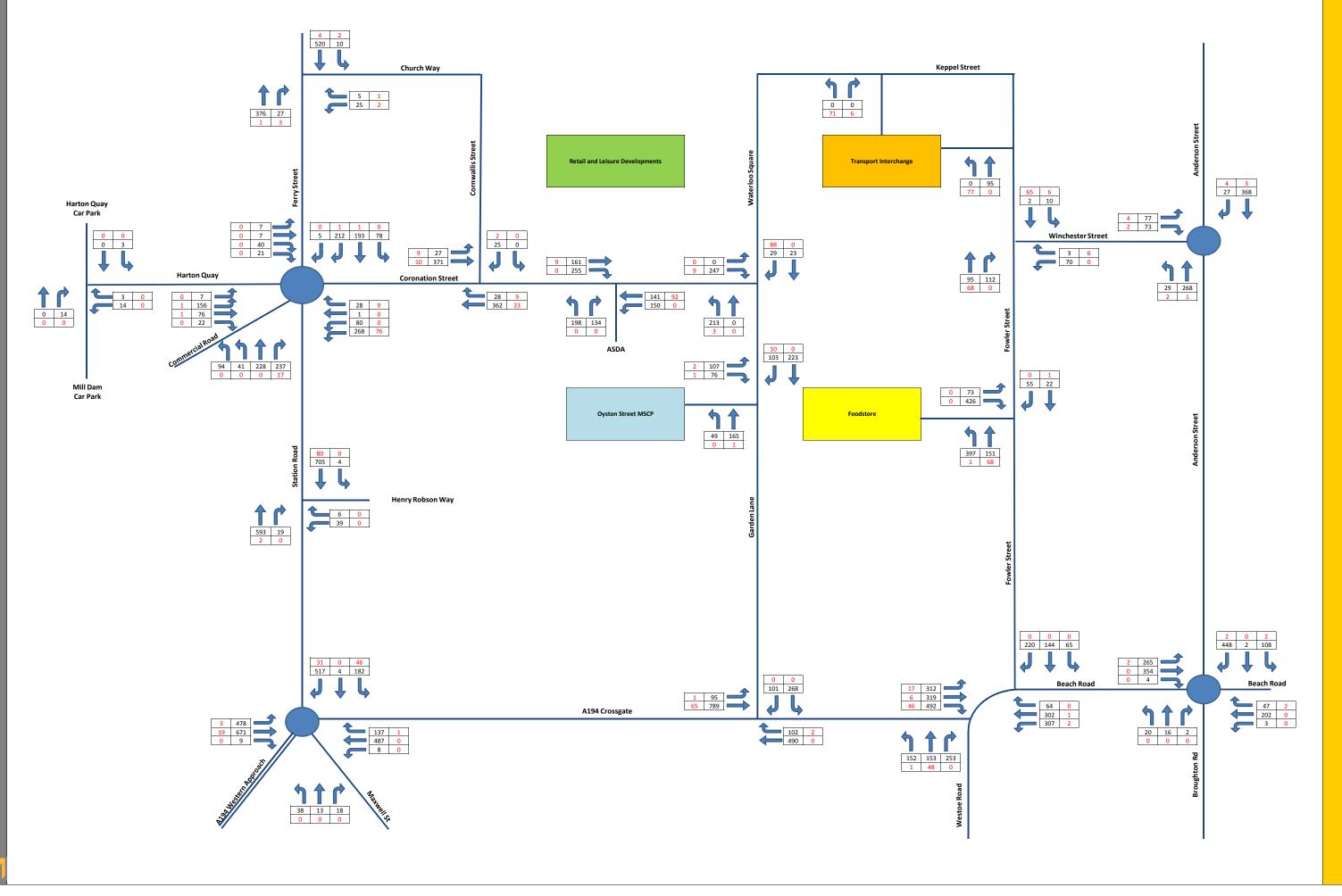
Reassigned Base + Interchange + Masterplan - PM Peak (16:45-17:45)



Project:
NEA1239 South Shields Town Centre Regeneration

Highway Network: Masterplan Network Title:

Reassigned Base + Interchange + Masterplan - Friday PM Peak - (16:45-17:45)



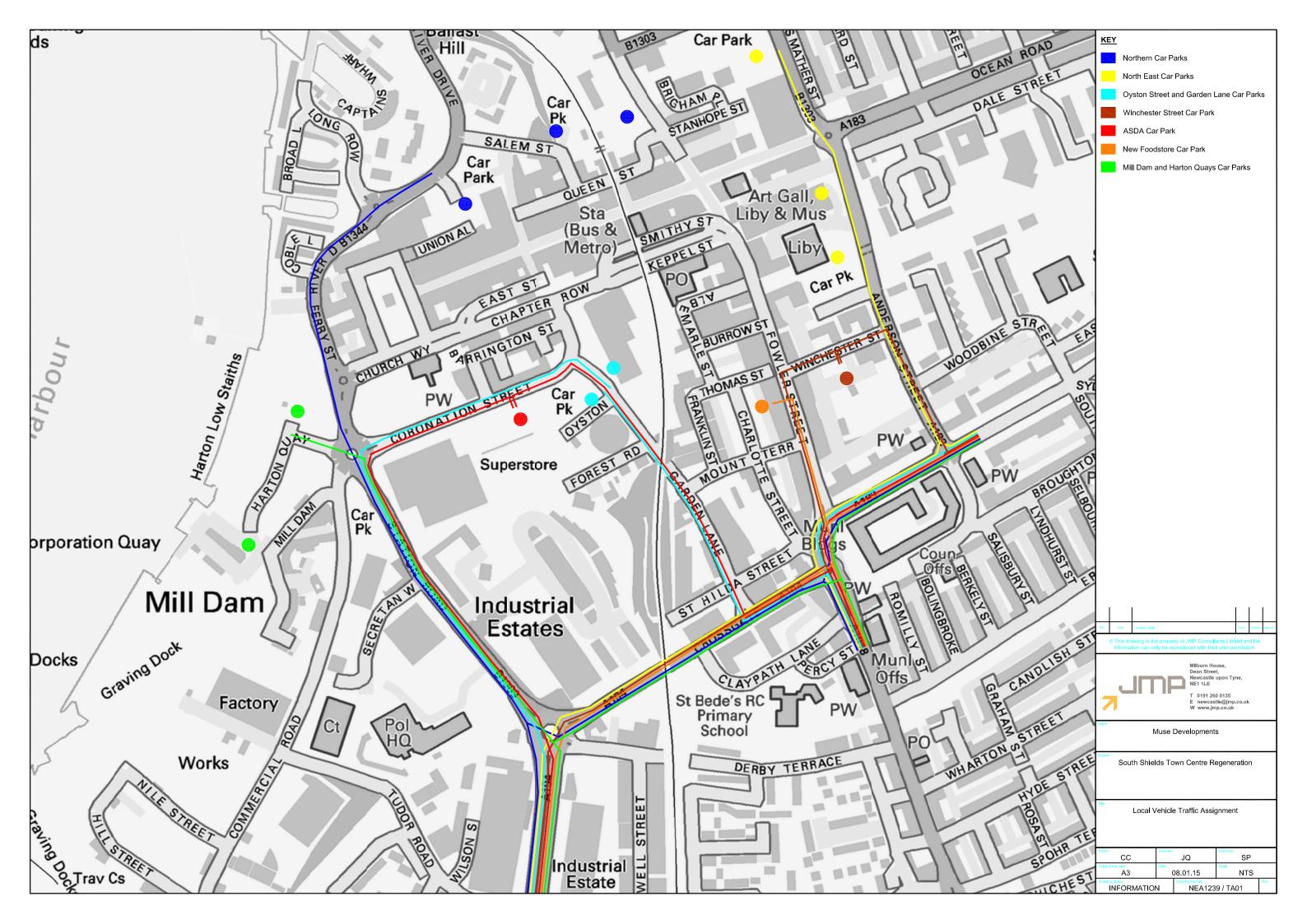
Project:
NEA1239 South Shields Town Centre Regeneration

Highway Network:

Masterplan Network

Title:

Reassigned Base + Interchange + Masterplan - Saturday Peak - (12:00-13:00)



Appendix E

MODELLING OUTPUT



Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.2.316 [14 Feb 2013] © Copyright TRL Limited, 2015

For sales and distribution information, program advice and maintenance, contact TRL: Tel: +44 (0)1344 770758 E-mail: softw are@trl.co.uk Web: http://www.trlsoftw.are.co.uk

The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: Crossgate Roundabout.arc8

Path: N:\PROJECTS\2012_13\NEA1###\NEA1239 South Shields Town Centre Regeneration\Master Plan May 2014

onwards\Transport Assesment\Modelling\A194 Crossgate Rbt

Report generation date: 24/06/2015 13:56:51

- « (Default Analysis Set) Base Traffic Saturday, Mid-Peak
- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

Summary of junction performance

	P	Mid-Peak					
	Queue (PCU)	RFC	LOS				
	A1 - Base	Traffic - Sa	turda	y			
B1303 Station Road	1.04	5.80	0.51	Α			
A194 Crossgate	0.51	3.71	0.33	А			
Maxwell Street	0.14	7.13	0.12	Α			
A194 Western Approach	0.80	3.22	0.44	Α			

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

"D1 - Base Traffic - Saturday, Mid-Peak " model duration: 11:45 - 13:15

Run using Junctions 8.0.2.316 at 24/06/2015 13:56:51

File summary

File Description

Title	Crossgate Roundabout
Location	South Shields
Site Number	1
Date	09/01/2015
Version	1
Status	Existing
Identifier	
Client	Muse Developments
Jobnumber	NEA1239
Enumerator	C Charlton
Description	



Analysis Options

Vehicle Length	Do Queue	Calculate Residual	Residual Capacity Criteria	RFC	Average Delay Threshold (s)	Queue Threshold
(m)	Variations	Capacity	Type	Threshold		(PCU)
5.75			N/A	0.85	36.00	20.00

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

(Default Analysis Set) - Base Traffic - Saturday, Mid-Peak

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	ARCADY		~	19			100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationshi
Base Traffic - Saturday, Mid-Peak	Base Traffic - Saturday	Mid- Peak		Varies by Arm	11:45	13:15	90	15				~		

Junction Network

Junctions

Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
Crossgate Roundabout	Roundabout	A,B,C,D				4.26	Α

Junction Network Options

Driving Side	Lighting
Left	Normal/unknow n

Arms

Arms

Name	Name	Description
B1303 Station Road	B1303 Station Road	
A194 Crossgate	A 194 Crossgate	
Maxwell Street	Maxw ell Street	
A194 Western Approach	A194 Western Approach	



Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
B1303 Station Road	0.00	99999.00		0.00
A194 Crossgate	0.00	99999.00		0.00
Maxwell Street	0.00	99999.00		0.00
A194 Western Approach	0.00	99999.00		0.00

Roundabout Geometry

Name	V - Approach road half- width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
B1303 Station Road	3.90	6.70	12.30	47.60	45.40	66.00	2
A194 Crossgate	5.76	7.00	8.00	12.00	45.50	47.00	
Maxwell Street	2.76	4.20	3.42	18.80	45.50	12.00	
A194 Western Approach	7.25	7.25	0.00	140.00	45.50	48.00	

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

Pedestrian Crossings

Name	Crossing Type
B1303 Station Road	None
A194 Crossgate	None
Maxwell Street	None
A194 Western Approach	None

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
B1303 Station Road		(calculated)	(calculated)	0.561	1511.032
A194 Crossgate		(calculated)	(calculated)	0.621	1813.577
Maxwell Street		(calculated)	(calculated)	0.523	1081.495
A194 Western Approach		(calculated)	(calculated)	0.708	2151.616

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				~	~



Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
B1303 Station Road	FLAT	~	649.00	100.000
A194 Crossgate	FLAT	✓	498.00	100.000
Maxwell Street	FLAT	·	69.00	100.000
A194 Western Approach	FLAT	V	892.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Crossgate Roundabout (for whole period)

		То									
		Α	В	С	D						
	Α	0.000	164.000	4.000	481.000						
From	В	127.000	0.000	8.000	363.000						
	С	13.000	18.000	0.000	38.000						
	D	490.000	393.000	9.000	0.000						

Turning Proportions (PCU) - Crossgate Roundabout (for whole period)

		То								
		Α	В	С	D					
	Α	0.00	0.25	0.01	0.74					
From	В	0.26	0.00	0.02	0.73					
	С	0.19	0.26	0.00	0.55					
	D	0.55	0.44	0.01	0.00					

Vehicle Mix

Average PCU Per Vehicle - Crossgate Roundabout (for whole period)

	То								
		Α	В	С	D				
	Α	1.000	1.006	1.000	1.011				
From	В	1.008	1.000	1.000	1.052				
	С	1.000	1.000	1.000	1.000				
	D	1.019	1.035	1.000	1.000				

Heavy Vehicle Percentages - Crossgate Roundabout (for whole period)

		То								
		Α	В	С	D					
	Α	0.000	0.600	0.000	1.062					
From	В	0.800	0.000	0.000	5.167					
	С	0.000	0.000	0.000	0.000					
	D	1.907	3.542	0.000	0.000					

4



Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU- min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU- min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B1303 Station Road	0.51	5.80	1.04	А	649.00	973.50	92.88	5.72	1.03	92.91	5.73
A194 Crossgate	0.33	3.71	0.51	А	498.00	747.00	45.84	3.68	0.51	45.84	3.68
Maxwell Street	0.12	7.13	0.14	А	69.00	103.50	12.17	7.06	0.14	12.17	7.06
A194 Western Approach	0.44	3.22	0.80	А	892.00	1338.00	71.25	3.20	0.79	71.26	3.20



Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.2.316 [14 Feb 2013] © Copyright TRL Limited, 2015

For sales and distribution information, program advice and maintenance, contact TRL:

Tel: +44 (0)1344 770758 E-mail: softw are@trl.co.uk Web: http://www.trlsoftw.are.co.uk

The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: Crossgate Roundabout.arc8

Path: N:\PROJECTS\2012_13\NEA1###\NEA1239 South Shields Town Centre Regeneration\Master Plan May 2014

onwards\Transport Assesment\Modelling\A194 Crossgate Rbt

Report generation date: 24/06/2015 14:17:32

- « (Default Analysis Set) Base + Interchange Saturday, Mid-Peak
- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

Summary of junction performance

	Mid-Peak						
	Queue (PCU)	Delay (s)	RFC	LOS			
	A1 - Base + In	nterchange -	Satu	rday			
B1303 Station Road	1.86	8.45	0.63	Α			
A194 Crossgate	0.46	3.58	0.32	A			
Maxwell Street	0.14	7.32	0.12	А			
A194 Western Approach	0.80	3.21	0.44	Α			

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

"D1 - Base Traffic - Saturday, Mid-Peak" model duration: 11:45 - 13:15

"D2 - Base + Interchange - Saturday, Mid-Peak " model duration: 11:45 - 13:15

Run using Junctions 8.0.2.316 at 24/06/2015 14:17:32

File summary

File Description

Title	Crossgate Roundabout
Location	South Shields
Site Number	1
Date	09/01/2015
Version	1
Status	Existing
Identifier	
Client	Muse Developments
Jobnumber	NEA1239
Enumerator	C Charlton
Description	



Analysis Options

Vehicle Length	Do Queue	Calculate Residual	Residual Capacity Criteria	RFC	Average Delay Threshold (s)	Queue Threshold
(m)	Variations	Capacity	Type	Threshold		(PCU)
5.75			N/A	0.85	36.00	20.00

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

(Default Analysis Set) - Base + Interchange - Saturday, Mid-Peak

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	ARCADY		~				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relatio
Base + Interchange - Saturday, Mid-Peak	Base + Interchange - Saturday	Mid- Peak		Varies by Arm	11:45	13:15	90	15				~		

Junction Network

Junctions

Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
Crossgate Roundabout	Roundabout	A,B,C,D				5.30	A

Junction Network Options

	Driving Side	Lighting
Ì	Left	Normal/unknow n

2



Arms

Arms

Name	Name	Description
B1303 Station Road	B1303 Station Road	
A194 Crossgate	A 194 Crossgate	
Maxwell Street	Maxw ell Street	
A194 Western Approach	A194 Western Approach	

Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
B1303 Station Road	0.00	99999.00		0.00
A194 Crossgate	0.00	99999.00		0.00
Maxwell Street	0.00	99999.00		0.00
A194 Western Approach	0.00	99999.00		0.00

Roundabout Geometry

Name	V - Approach road half- width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
B1303 Station Road	3.90	6.70	12.30	47.60	45.40	66.00	
A194 Crossgate	5.76	7.00	8.00	12.00	45.50	47.00	
Maxwell Street	2.76	4.20	3.42	18.80	45.50	12.00	
A194 Western Approach	7.25	7.25	0.00	140.00	45.50	48.00	

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

Pedestrian Crossings

Name	Crossing Type
B1303 Station Road	None
A194 Crossgate	None
Maxwell Street	None
A194 Western Approach	None

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
B1303 Station Road		(calculated)	(calculated)	0.561	1511.032
A194 Crossgate		(calculated)	(calculated)	0.621	1813.577
Maxwell Street		(calculated)	(calculated)	0.523	1081.495
A194 Western Approach		(calculated)	(calculated)	0.708	2151.616

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		~	~	HV Percentages	2.00				~	~



Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
B1303 Station Road	FLAT	~	797.00	100.000
A194 Crossgate	FLAT	~	464.00	100.000
Maxwell Street	FLAT	✓	69.00	100.000
A194 Western Approach	FLAT	~	892.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Crossgate Roundabout (for whole period)

	То									
		Α	В	С	D					
	Α	0.000	254.000	4.000	539.000					
From	В	127.000	0.000	8.000	329.000					
	С	13.000	18.000	0.000	38.000					
	D	478.000	405.000	9.000	0.000					

Turning Proportions (PCU) - Crossgate Roundabout (for whole period)

	То							
		Α	В	С	D			
	Α	0.00	0.32	0.01	0.68			
From	В	0.27	0.00	0.02	0.71			
	С	0.19	0.26	0.00	0.55			
	D	0.54	0.45	0.01	0.00			

Vehicle Mix

Average PCU Per Vehicle - Crossgate Roundabout (for whole period)

		То							
		Α	В	С	D				
	Α	1.000	1.221	1.000	1.062				
From	В	1.008	1.000	1.000	1.000				
	С	1.000	1.000	1.000	1.000				
	D	1.006	1.049	1.000	1.000				

Heavy Vehicle Percentages - Crossgate Roundabout (for whole period)

		To								
		Α	В	С	D					
	Α	0.000	22.115	0.000	6.175					
From	В	0.794	0.000	0.000	0.000					
	С	0.000	0.000	0.000	0.000					
	D	0.632	4.922	0.000	0.000					



Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU- min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU- min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B1303 Station Road	0.63	8.45	1.86	А	797.00	1195.50	164.69	8.27	1.83	164.77	8.27
A194 Crossgate	0.32	3.58	0.46	А	464.00	696.00	41.26	3.56	0.46	41.27	3.56
Maxwell Street	0.12	7.32	0.14	А	69.00	103.50	12.47	7.23	0.14	12.48	7.23
A194 Western Approach	0.44	3.21	0.80	А	892.00	1338.00	71.20	3.19	0.79	71.21	3.19



Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.2.316 [14 Feb 2013] © Copyright TRL Limited, 2015

For sales and distribution information, program advice and maintenance, contact TRL:

Tel: +44 (0)1344 770758 E-mail: softw are@trl.co.uk Web: http://www.trlsoftw.are.co.uk

The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: Crossgate Roundabout.arc8

Path: N:\PROJECTS\2012_13\NEA1###\NEA1239 South Shields Town Centre Regeneration\Master Plan May 2014

onwards\Transport Assesment\Modelling\A194 Crossgate Rbt

Report generation date: 24/06/2015 14:29:07

- « (Default Analysis Set) Base + Interchange + Masterplan Saturday, Mid-Peak
- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

Summary of junction performance

		Mid-Peak					
	Queue (PCU)	Delay (s)	RFC	LOS			
	A1 - Base + Interchange + Masterplan - Saturday						
B1303 Station Road	3.85	16.38	0.78	С			
A194 Crossgate	0.78	4.44	0.44	А			
Maxwell Street	0.18	9.42	0.15	А			
A194 Western Approach	1.47	4.42	0.59	Α			

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

"D1 - Base Traffic - Saturday, Mid-Peak" model duration: 11:45 - 13:15

"D2 - Base + Interchange - Saturday, Mid-Peak" model duration: 11:45 - 13:15

"D3 - Base + Interchange + Masterplan - Saturday, Mid-Peak "model duration: 11:45 - 13:15

Run using Junctions 8.0.2.316 at 24/06/2015 14:29:07

File summary

File Description

Title	Crossgate Roundabout			
Location	South Shields			
Site Number	1			
Date	09/01/2015			
Version	1			
Status	Existing			
Identifier				
Client	Muse Developments			
Jobnum ber	NEA1239			
Enumerator	C Charlton			
Description				



Analysis Options

Vehicle Length	Do Queue	Calculate Residual	Residual Capacity Criteria	RFC	Average Delay Threshold (s)	Queue Threshold
(m)	Variations	Capacity	Type	Threshold		(PCU)
5.75			N/A	0.85	36.00	20.00

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

(Default Analysis Set) - Base + Interchange + Masterplan - Saturday, Mid-Peak

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	ARCADY		~				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relatio
Base + Interchange + Masterplan - Saturday, Mid-Peak	Base + Interchange + Masterplan - Saturday	Mid- Peak		Varies by Arm	11:45	13:15	90	15				~		

Junction Network

Junctions

Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Do Geometric Delay	Junction Delay (s)	Junction LOS
Crossgate Roundabout	Roundabout	A,B,C,D				8.26	А

Junction Network Options

Driving Side	Lighting
Left	Normal/unknow n



Arms

Arms

Name	Name	Description
B1303 Station Road	B1303 Station Road	
A194 Crossgate	A 194 Crossgate	
Maxwell Street	Maxw ell Street	
A194 Western Approach	A194 Western Approach	

Capacity Options

Name	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
B1303 Station Road	0.00	99999.00		0.00
A194 Crossgate	0.00	99999.00		0.00
Maxwell Street	0.00	99999.00		0.00
A194 Western Approach	0.00	99999.00		0.00

Roundabout Geometry

Name	V - Approach road half- width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
B1303 Station Road	3.90	6.70	12.30	47.60	45.40	66.00	
A194 Crossgate	5.76	7.00	8.00	12.00	45.50	47.00	
Maxwell Street	2.76	4.20	3.42	18.80	45.50	12.00	
A194 Western Approach	7.25	7.25	0.00	140.00	45.50	48.00	

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

Pedestrian Crossings

Name	Crossing Type
B1303 Station Road	None
A194 Crossgate	None
Maxwell Street	None
A194 Western Approach	None

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
B1303 Station Road		(calculated)	(calculated)	0.561	1511.032
A194 Crossgate		(calculated)	(calculated)	0.621	1813.577
Maxwell Street		(calculated)	(calculated)	0.523	1081.495
A194 Western Approach		(calculated)	(calculated)	0.708	2151.616

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		~	~	HV Percentages	2.00				~	~



Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
B1303 Station Road	FLAT	V	857.00	100.000
A194 Crossgate	FLAT	~	634.00	100.000
Maxwell Street	FLAT	~	69.00	100.000
A194 Western Approach	FLAT	~	1202.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Crossgate Roundabout (for whole period)

			To		
		Α	В	С	D
	Α	0.000	274.000	4.000	579.000
From	В	139.000	0.000	8.000	487.000
	С	13.000	18.000	0.000	38.000
	D	484.000	709.000	9.000	0.000

Turning Proportions (PCU) - Crossgate Roundabout (for whole period)

			To			
		Α	В	С	D	
	Α	0.00	0.32	0.00	0.68	
From	В	0.22	0.00	0.01	0.77	
	С	0.19	0.26	0.00	0.55	
	D	0.40	0.59	0.01	0.00	

Vehicle Mix

Average PCU Per Vehicle - Crossgate Roundabout (for whole period)

	То									
	j	Α	В	С	D					
	Α	1.000	1.202	1.000	1.057					
From	В	1.007	1.000	1.000	1.000					
	С	1.000	1.000	1.000	1.000					
	D	1.006	1.028	1.000	1.000					

Heavy Vehicle Percentages - Crossgate Roundabout (for whole period)

	То									
		Α	В	С	D					
	Α	0.000	20.175	0.000	5.657					
From	В	0.725	0.000	0.000	0.000					
	С	0.000	0.000	0.000	0.000					
	D	0.624	2.794	0.000	0.000					

4



Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU- min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU- min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B1303 Station Road	0.78	16.38	3.85	С	857.00	1285.50	331.86	15.49	3.69	332.27	15.51
A194 Crossgate	0.44	4.44	0.78	А	634.00	951.00	69.60	4.39	0.77	69.62	4.39
Maxwell Street	0.15	9.42	0.18	А	69.00	103.50	15.98	9.26	0.18	15.98	9.26
A194 Western Approach	0.59	4.42	1.47	А	1202.00	1803.00	131.31	4.37	1.46	131.34	4.37



Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.2.316 [14 Feb 2013] © Copyright TRL Limited, 2015

For sales and distribution information, program advice and maintenance, contact TRL:

Tel: +44 (0)1344 770758 E-mail: softw are@trl.co.uk Web: http://www.trlsoftw.are.co.uk

The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: Coronation St Rdbt.arc8

Path: N:\PROJECTS\2012 13\NEA1##\NEA1239 South Shields Town Centre Regeneration\Master Plan May 2014

onwards\Transport Assesment\Modelling\Coronation Street

Report generation date: 24/06/2015 14:41:22

- « (Default Analysis Set) Base Traffic Saturday, Mid-Peak
- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

Summary of junction performance

	Mid-Peak					
	Queue (PCU)	Delay (s)	RFC	LOS		
	A1 - Base	Traffic - Sa	turda	ay .		
Station Road	1.48	8.93	0.59	Α		
Commercial Road	0.31	4.27	0.24	А		
Harton Quay	0.08	4.68	0.07	Α		
Ferry Street	0.66	4.47	0.40	Α		
Coronation Street	0.46	4.65	0.31	Α		

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

"D1 - Base Traffic - Saturday, Mid-Peak " model duration: 11:45 - 13:15

Run using Junctions 8.0.2.316 at 24/06/2015 14:41:22

File summary

File Description

Title	Coronation Street Roundabout
Location	South Shields
Site Number	1
Date	09/01/2015
Version	
Status	Existing
Identifier	
Client	Muse Developments
Jobnumber	NEA1239
Enumerator	C Charlton
Description	



Analysis Options

Vehicle Length	Do Queue	Calculate Residual	Residual Capacity Criteria	RFC	Average Delay Threshold (s)	Queue Threshold
(m)	Variations	Capacity	Type	Threshold		(PCU)
5.75			N/A	0.85	36.00	20.00

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	

(Default Analysis Set) - Base Traffic - Saturday, Mid-Peak

Data Errors and Warnings

No errors or warnings

Analysis Set Details

	Name	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
ĵ	(Default Analysis Set)			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Base Traffic - Saturday, Mid- Peak	Base Traffic - Saturday	Mid-Peak		FLAT	11:45	13:15	90	15		

Junction Network

Junctions

Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
Coronation St. Rdbt	Roundabout	1,2,3,4,5			5.96	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknow n

Arms

Arms

Name	Name	Description
Station Road	Station Road	
Commercial Road	Commercial Road	
Harton Quay	Harton Quay	
Ferry Street	Ferry Street	
Coronation Street	Coronation Street	



Roundabout Geometry

Name	V - Approach road half- width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
Station Road	4.16	4.40	0.03	10.41	39.05	24.83	
Commercial Road	4.12	5.31	5.00	24.29	39.05	27.84	
Harton Quay	4.43	4.43	0.00	8.81	39.05	25.66	
Ferry Street	4.96	6.16	7.85	6.13	39.05	30.63	
Coronation Street	5.03	5.03	0.00	15.70	39.05	33.23	

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

Pedestrian Crossings

Name	Crossing Type
Station Road	None
Commercial Road	None
Harton Quay	None
Ferry Street	None
Coronation Street	None

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
Station Road		(calculated)	(calculated)	0.541	1228.970
Commercial Road		(calculated)	(calculated)	0.604	1476.483
Harton Quay		(calculated)	(calculated)	0.545	1279.135
Ferry Street		(calculated)	(calculated)	0.580	1549.925
Coronation Street		(calculated)	(calculated)	0.594	1486.596

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		~	~	HV Percentages	2.00				~	~

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
Station Road	FLAT	√	597.00	100.000
Commercial Road	FLAT	✓	265.00	100.000
Harton Quay	FLAT	√	58.00	100.000
Ferry Street	FLAT	✓	534.00	100.000
Coronation Street	FLAT	✓	360.00	100.000



Turning Proportions

Turning Counts or Proportions (PCU/hr) - Coronation St. Rdbt (for whole period)

		То							
		1	2	3	4	5			
	1	0.000	94.000	24.000	281.000	198.000			
_	2	22.000	0.000	7.000	158.000	78.000			
From	3	23.000	21.000	0.000	7.000	7.000			
	4	237.000	214.000	5.000	0.000	78.000			
	5	187.000	80.000	1.000	92.000	0.000			

Turning Proportions (PCU) - Coronation St. Rdbt (for whole period)

	То						
		1	2	3	4	5	
	1	0.00	0.16	0.04	0.47	0.33	
	2	0.08	0.00	0.03	0.60	0.29	
From	3	0.40	0.36	0.00	0.12	0.12	
	4	0.44	0.40	0.01	0.00	0.15	
	5	0.52	0.22	0.00	0.26	0.00	

Vehicle Mix

Average PCU Per Vehicle - Coronation St. Rdbt (for whole period)

	То							
		1	2	3	4	5		
	1	1.000	1.000	1.000	1.029	1.000		
	2	1.000	1.000	1.000	1.006	1.013		
From	3	1.000	1.000	1.000	1.000	1.000		
	4	1.022	1.005	1.000	1.000	1.000		
	5	1.005	1.000	1.000	1.243	1.000		

Heavy Vehicle Percentages - Coronation St. Rdbt (for whole period)

	То							
		1	2	3	4	5		
	1	0.000	0.000	0.000	2.930	0.000		
	2	0.000	0.000	0.000	0.633	1.299		
From	3	0.000	0.000	0.000	0.000	0.000		
	4	2.155	0.469	0.000	0.000	0.000		
	5	0.538	0.000	0.000	24.324	0.000		

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
Station Road	0.59	8.93	1.48	Α
Commercial Road	0.24	4.27	0.31	Α
Harton Quay	0.07	4.68	0.08	Α
Ferry Street	0.40	4.47	0.66	Α
Coronation Street	0.31	4.65	0.46	Α





Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.2.316 [14 Feb 2013] © Copyright TRL Limited, 2015

For sales and distribution information, program advice and maintenance, contact TRL:

Tel: +44 (0)1344 770758 E-mail: softw are@trl.co.uk Web: http://www.trlsoftw.are.co.uk

The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: Coronation St Rdbt.arc8

Path: N:\PROJECTS\2012 13\NEA1##\NEA1239 South Shields Town Centre Regeneration\Master Plan May 2014

onwards\Transport Assesment\Modelling\Coronation Street

Report generation date: 24/06/2015 14:48:49

- « (Default Analysis Set) Base + Interchange Saturday, Mid-Peak
- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

Summary of junction performance

	Mid-Peak					
	Queue (PCU)	Delay (s)	RFC	LOS		
	A1 - Base + Ir	nterchange :	Satu	rday		
Station Road	1.39	8.59	0.58	Α		
Commercial Road	0.31	4.24	0.24	А		
Harton Quay	0.07	4.64	0.07	А		
Ferry Street	0.66	4.47	0.40	Α		
Coronation Street	0.90	6.50	0.43	Α		

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

"D1 - Base Traffic - Saturday, Mid-Peak" model duration: 11:45 - 13:15

"D2 - Base + Interchange - Saturday, Mid-Peak " model duration: 11:45 - 13:15

Run using Junctions 8.0.2.316 at 24/06/2015 14:48:49

1



File summary

File Description

Title	Coronation Street Roundabout
Location	South Shields
Site Number	1
Date	09/01/2015
Version	
Status	Existing
Identifier	
Client	Muse Developments
Jobnumber	NEA1239
Enumerator	C Charlton
Description	

Analysis Options

Vehicle Length	Do Queue	Calculate Residual	Residual Capacity Criteria	RFC	Average Delay Threshold (s)	Queue Threshold
(m)	Variations	Capacity	Type	Threshold		(PCU)
5.75			N/A	0.85	36.00	20.00

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

(Default Analysis Set) - Base + Interchange - Saturday, Mid-Peak

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Base + Interchange - Saturday, Mid-Peak	Base + Interchange - Saturday	Mid-Peak		FLAT	11:45	13:15	90	15		

Junction Network

Junctions

Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
Coronation St. Rdbt	Roundabout	1,2,3,4,5			6.21	А

Junction Network Options

Driving Side	Lighting
Left	Normal/unknow n



Arms

Arms

Name	Name	Description
Station Road	Station Road	
Commercial Road	Commercial Road	
Harton Quay	Harton Quay	
Ferry Street	Ferry Street	
Coronation Street	Coronation Street	

Roundabout Geometry

Name	V - Approach road half- width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
Station Road	4.16	4.40	0.03	10.41	39.05	24.83	
Commercial Road	4.12	5.31	5.00	24.29	39.05	27.84	
Harton Quay	4.43	4.43	0.00	8.81	39.05	25.66	
Ferry Street	4.96	6.16	7.85	6.13	39.05	30.63	
Coronation Street	5.03	5.03	0.00	15.70	39.05	33.23	

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

Pedestrian Crossings

Name	Crossing Type
Station Road	None
Commercial Road	None
Harton Quay	None
Ferry Street	None
Coronation Street	None

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
Station Road		(calculated)	(calculated)	0.541	1228.970
Commercial Road		(calculated)	(calculated)	0.604	1476.483
Harton Quay		(calculated)	(calculated)	0.545	1279.135
Ferry Street		(calculated)	(calculated)	0.580	1549.925
Coronation Street		(calculated)	(calculated)	0.594	1486.596

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		~	~	HV Percentages	2.00				~	~



Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
Station Road	FLAT	√	585.00	100.000
Commercial Road	FLAT	√	265.00	100.000
Harton Quay	FLAT	✓	58.00	100.000
Ferry Street	FLAT	√	534.00	100.000
Coronation Street	FLAT	✓	502.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Coronation St. Rdbt (for whole period)

				To		
		1	2	3	4	5
	1	0.000	94.000	24.000	269.000	198.000
	2	22.000	0.000	7.000	158.000	78.000
From	3	23.000	21.000	0.000	7.000	7.000
	4	237.000	214.000	5.000	0.000	78.000
	5	329.000	80.000	1.000	92.000	0.000

Turning Proportions (PCU) - Coronation St. Rdbt (for whole period)

	То								
		1	2	3	4	5			
	1	0.00	0.16	0.04	0.46	0.34			
-	2	0.08	0.00	0.03	0.60	0.29			
From	3	0.40	0.36	0.00	0.12	0.12			
	4	0.44	0.40	0.01	0.00	0.15			
	5	0.66	0.16	0.00	0.18	0.00			

Vehicle Mix

Average PCU Per Vehicle - Coronation St. Rdbt (for whole period)

	То									
		1	2	3	4	5				
	1	1.000	1.000	1.000	1.007	1.000				
_	2	1.000	1.000	1.000	1.006	1.013				
From	3	1.000	1.000	1.000	1.000	1.000				
	4	1.022	1.005	1.000	1.000	1.000				
	5	1.280	1.000	1.000	1.243	1.000				



Heavy Vehicle Percentages - Coronation St. Rdbt (for whole period)

	То										
		1	2	3	4	5					
	1	0.000	0.000	0.000	0.749	0.000					
_	2	0.000	0.000	0.000	0.633	1.299					
From	3	0.000	0.000	0.000	0.000	0.000					
	4	2.155	0.469	0.000	0.000	0.000					
	5	28.016	0.000	0.000	24.324	0.000					

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
Station Road	0.58	8.59	1.39	Α
Commercial Road	0.24	4.24	0.31	Α
Harton Quay	0.07	4.64	0.07	Α
Ferry Street	0.40	4.47	0.66	Α
Coronation Street	0.43	6.50	0.90	Α



Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.2.316 [14 Feb 2013] © Copyright TRL Limited, 2015

For sales and distribution information, program advice and maintenance, contact TRL: Tel: +44 (0)1344 770758 E-mail: softw are@trl.co.uk Web: http://www.trlsoftware.co.uk

The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: Coronation St Rdbt.arc8

Path: N:\PROJECTS\2012 13\NEA1##\NEA1239 South Shields Town Centre Regeneration\Master Plan May 2014

onwards\Transport Assesment\Modelling\Coronation Street

Report generation date: 24/06/2015 15:33:25

- « (Default Analysis Set) Base + Interchange + Masterplan Saturday, Mid-Peak
- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

Summary of junction performance

	Mid-Peak								
	Queue (PCU)	Delay (s)	RFC	LOS					
	A1 - Base + Interc	A1 - Base + Interchange + Masterplan - Saturday							
Station Road	1.64	9.33	0.62	Α					
Commercial Road	0.31	4.25	0.24	А					
Harton Quay	0.10	4.70	0.09	Α					
Ferry Street	0.61	4.50	0.38	Α					
Coronation Street	1.00	6.61	0.46	Α					

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

"D1 - Base Traffic - Saturday, Mid-Peak" model duration: 11:45 - 13:15
"D2 - Base + Interchange - Saturday, Mid-Peak" model duration: 11:45 - 13:15
"D3 - Base + Interchange + Masterplan - Saturday, Mid-Peak " model duration: 11:45 - 13:15

Run using Junctions 8.0.2.316 at 24/06/2015 15:33:25



File summary

File Description

Title	Coronation Street Roundabout
Location	South Shields
Site Number	1
Date	09/01/2015
Version	
Status	Existing
Identifier	
Client	Muse Developments
Jobnumber	NEA1239
Enumerator	C Charlton
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

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

(Default Analysis Set) - Base + Interchange + Masterplan - Saturday, Mid-Peak

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Base + Interchange + Masterplan - Saturday, Mid-Peak	Base + Interchange + Masterplan - Saturday	Mid- Peak		FLAT	11:45	13:15	90	15		

Junction Network

Junctions

Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
Coronation St. Rdbt	Roundabout	1,2,3,4,5			6.57	Α



Junction Network Options

Driving Side	Lighting
Left	Normal/unknow n

Arms

Arms

Name	Name	Description
Station Road	Station Road	
Commercial Road	Commercial Road	
Harton Quay	Harton Quay	
Ferry Street	Ferry Street	
Coronation Street	Coronation Street	

Roundabout Geometry

Name	V - Approach road half- width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
Station Road	4.16	4.40	0.03	10.41	39.05	24.83	
Commercial Road	4.12	5.31	5.00	24.29	39.05	27.84	
Harton Quay	4.43	4.43	0.00	8.81	39.05	25.66	
Ferry Street	4.96	6.16	7.85	6.13	39.05	30.63	
Coronation Street	5.03	5.03	0.00	15.70	39.05	33.23	

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

Pedestrian Crossings

Name	Crossing Type
Station Road	None
Commercial Road	None
Harton Quay	None
Ferry Street	None
Coronation Street	None

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	ed slope Entered intercept (PCU/hr)		Final Intercept (PCU/hr	
Station Road		(calculated)	(calculated)	0.541	1228.970	
Commercial Road		(calculated)	(calculated)	0.604	1476.483	
Harton Quay		(calculated)	(calculated)	0.545	1279.135	
Ferry Street		(calculated)	(calculated)	0.580	1549.925	
Coronation Street		(calculated)	(calculated)	0.594	1486.596	

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



Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		~	✓	HV Percentages	2.00				~	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
Station Road	FLAT	✓	634.00	100.000
Commercial Road	FLAT	√	265.00	100.000
Harton Quay	FLAT	✓	75.00	100.000
Ferry Street	FLAT	√	492.00	100.000
Coronation Street	FLAT	✓	547.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Coronation St. Rdbt (for whole period)

		То												
		1	2	3	4	5								
	1	0.000	94.000	41.000	228.000	271.000								
_	2	22.000	0.000	7.000	158.000	78.000								
From	3	40.000	21.000	0.000	7.000	7.000								
	4	195.000	214.000	5.000	0.000	78.000								
	5	420.000	80.000	1.000	46.000	0.000								

Turning Proportions (PCU) - Coronation St. Rdbt (for whole period)

	То											
		1	2	3	4	5						
	1	0.00	0.15	0.06	0.36	0.43						
	2	0.08	0.00	0.03	0.60	0.29						
From	3	0.53	0.28	0.00	0.09	0.09						
	4	0.40	0.43	0.01	0.00	0.16						
	5	0.77	0.15	0.00	0.08	0.00						

4



Vehicle Mix

Average PCU Per Vehicle - Coronation St. Rdbt (for whole period)

	То												
		1	2	3	4	5							
	1	1.000	1.000	1.000	1.000	1.067							
_	2	1.000	1.000	1.000	1.006	1.013							
From	3	1.000	1.000	1.000	1.000	1.000							
	4	1.005	1.005	1.000	1.000	1.000							
	5	1.221	1.000	1.000	1.243	1.000							

Heavy Vehicle Percentages - Coronation St. Rdbt (for whole period)

		То												
		1	2	3	4	5								
	1	0.000	0.000 0.000		0.000	6.693								
-	2	0.000	0.000	0.000	0.640	1.299								
From	3	0.000	0.000	0.000	0.000	0.000								
	4	0.515	0.472	0.000	0.000	0.000								
	5	22.093	0.000	0.000	24.324	0.000								

Results

Results Summary for whole modelled period

Name	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
Station Road	0.62	9.33	1.64	Α
Commercial Road	0.24	4.25	0.31	Α
Harton Quay	0.09	4.70	0.10	Α
Ferry Street	0.38	4.50	0.61	Α
Coronation Street	0.46	6.61	1.00	Α

Full Input Data And Results Full Input Data And Results

User and Project Details

Project:	
Title:	
Location:	
File name:	2015 01 13 EXISTING Crossgate-Beach Rd.lsg3x
Author:	
Company:	
Address:	
Notes:	

Network Layout Diagram

Phase Diagram

Phase Input Data

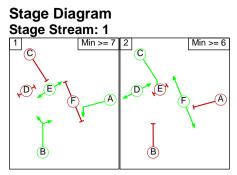
i made impar					
Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
А	Traffic	1		7	7
В	Traffic	1		7	7
С	Traffic	1		7	7
D	Pedestrian	1		4	4
Е	Pedestrian	1		4	4
F	Pedestrian	1		6	6
G	Ind. Arrow	2	Н	7	7
Н	Traffic	2		7	7
I	Traffic	2		7	7
J	Traffic	2		7	7
К	Filter	2	J	7	1
L	Pedestrian	2		6	6
M	Pedestrian	2		4	4

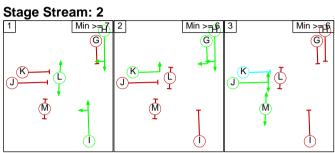
Phase Intergreens Matrix

	- 3-									I GI COIIS MALIIX									
					S	tart	ing	Pha	ase										
		Α	В	С	D	Е	F	G	Н	I	J	K	L	М					
	Α		-	6	-	-	-	-	-	-	-	-	-	-					
	В	-		6	7	-	8	-	-	-	-	-	-	-					
	O	6	6		1	5	-	-	-	-	-	•	-	-					
	D	-	6	-		-	-	-	-	-	-	-	-	-					
	Е	-	-	6	-		•	-	-	-	-	-	-	-					
Terminating	F	-	10	-	-	-		ı	-	-	-	ı	-	-					
Phase	G	-	-	-	-	-	-		1	6	6	ı	-	7					
	Η	-	-	-	-	-	-	-		•	6	-	-	7					
	I	-	-	-	-	-	-	6	-		6	6	-	7					
	7	-	-	-	_	_	-	6	6	6		•	4	-					
	K	-	-	-	_	_	-	_	-	6	-		4	_					
	L	-	-	-	-	-	-	-	-	-	7	7		-					
	М	-	-	-	-	-	-	5	5	5	-	•	-						

Phases in Stage

Stream	Stage No.	Phases in Stage
1	1	ABE
1	2	CDF
2	1	HIL
2	2	GHK
2	3	JM





Phase Delays Stage Stream: 1

Term. Stage	Start Stage	Phase	Туре	Value	Cont value
	There are no	Phase D	elays d	efined	

Stage Stream: 2

Term. Stage	Start Stage	Phase	Туре	Value	Cont value
	There are no	Phase D	elays d	lefined	•

Prohibited Stage Change Stage Stream: 1

	To Stage					
		1	2			
From Stage	1		8			
,	2	10				

Stage Stream: 2

	To Stage							
		1	2	3				
From	1		7	7				
Stage	2	X		7				
	3	6	6					

Full Input Data And Results

Give-Way Lane Input Data

Junction: C	Junction: Crossgate / Beach Road											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)	
4/2		1440 0	0	6/1	1.09	All	0.00		0.50	0	0.00	
(Beach Rd)			6/2	1.09	All	2.00	-	0.50	2	2.00		

Full Input Data And Results Lane Input Data

Junction: Cr	Junction: Crossgate / Beach Road											
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 (Beach Rd)	U	А	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 4 Left	43.00
1/2 (Beach Rd)	U	А	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 4 Left	43.00
2/1 (Beach Rd)	U	В	2	3	5.2	Geom	-	3.50	0.00	Y	Arm 13 Ahead	16.00
2/2 (Beach Rd)	U	В	2	3	5.2	Geom	-	3.50	0.00	Y	Arm 9 Right	Inf
3/1	U	С	2	3	60.0	Geom	_	3.80	0.00	Y	Arm 4 Ahead	23.00
(Fowler St)	O	O	2	3	00.0	Geom	_	3.00	0.00	'	Arm 5 Ahead	23.00
4/1 (Beach Rd)	U	Н	2	3	8.7	Geom	-	3.65	0.00	Y	Arm 10 Ahead	Inf
4/2 (Beach Rd)	0	НG	2	3	8.7	Geom	-	3.65	0.00	Y	Arm 11 Right	18.00
5/1 (Beach Rd)	U		2	3	13.9	Geom	-	3.90	0.00	Y	Arm 10 Ahead	Inf
6/1 (Westoe	U	I	2	3	60.0	Geom	_	3.50	0.00	Y	Arm 8 Ahead	Inf
Rd)	J	1	2	3	00.0	Geom	_	3.30	0.00	1	Arm 11 Left	11.00
6/2 (Westoe Rd)	U	I	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 8 Ahead	Inf
7/1 (Crossgate)	U	JK	2	3	60.0	Geom	-	3.20	0.00	Y	Arm 8 Left	11.00
7/2 (Crossgate)	U	J	2	3	60.0	Geom	-	3.20	0.00	Y	Arm 10 Right	22.00
8/1	U		2	3	3.5	Geom		3.50	0.00	Y	Arm 2 Ahead	Inf
(Beach Rd)	U		2	3	3.5	Geom	-	3.30	0.00	1	Arm 12 Left	10.00
8/2 (Beach Rd)	U		2	3	3.5	Geom	-	3.50	0.00	Y	Arm 2 Ahead	Inf
9/1	U		2	3	60.0	Inf	-	-	-	-	-	-
10/1	U		2	3	60.0	Inf	-	-	-	-	-	-
10/2	U		2	3	60.0	Inf	-	-	-	-	-	-
11/1	U		2	3	60.0	Inf	-	-	-	-	-	-
12/1 (Charlotte St)	U		2	3	60.0	Inf	-	-	-	-	-	-
13/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'Base Friday Peak'	16:30	17:30	01:00	
2: 'Friday Base + Interchange'	16:30	17:30	01:00	
3: 'Friday Base + Int + Masterplan'	16:30	17:30	01:00	

Scenario 1: 'Base Friday Peak' (FG1: 'Base Friday Peak', Plan 1: 'Staging Plan No. 1') Traffic Flows, Desired

Desired Flow:

	Destination										
		Α	В	С	D	Е	Tot.				
	Α	0	301	273	0	0	574				
	В	248	0	135	112	0	495				
Origin	С	298	453	0	45	0	796				
	D	0	92	32	0	0	124				
	Е	0	0	0	0	0	0				
	Tot.	546	846	440	157	0	1989				

Traffic Lane Flows

Lane	Scenario 1: Base Friday Peak
Junction: (Crossgate / Beach Road
1/1	301
1/2	273
2/1	157
2/2	546
3/1	124
4/1	303
4/2	305
5/1	90
6/1	247
6/2	248
7/1	343
7/2	453
8/1	157
8/2	546
9/1	546
10/1	90
10/2	756
11/1	440
12/1	0
13/1	157

Lane Saturation Flows

Junction: Crossgate / Beach Road										
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 (Beach Rd)	3.00	0.00	Y	Arm 4 Left	43.00	100.0 %	1850	1850		
1/2 (Beach Rd)	3.00	0.00	Y	Arm 4 Left	43.00	100.0 %	1850	1850		
2/1 (Beach Rd)	3.50	0.00	Y	Arm 13 Ahead	16.00	100.0 %	1797	1797		
2/2 (Beach Rd)	3.50	0.00	Y	Arm 9 Right	Inf	100.0 %	1965	1965		
3/1 (Fowler St)	3.80	0.00	Y	Arm 4 Ahead Arm 5 Ahead	23.00	27.4 % 72.6 %	1873	1873		
4/1 (Beach Rd)	3.65	0.00	Y	Arm 10 Ahead	Inf	100.0 %	1980	1980		
4/2 (Beach Rd)	3.65	0.00	Y	Arm 11 Right	18.00	100.0 %	1828	1828		
5/1 (Beach Rd)	3.90	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2005	2005		
6/1 (Westoe Rd)	3.50	0.00	Υ	Arm 8 Ahead	Inf	45.3 %	1829	1829		
6/2 (Westoe Rd)	3.50	0.00	Y	Arm 11 Left Arm 8 Ahead	11.00 Inf	54.7 % 100.0 %	1965	1965		
7/1 (Crossgate)	3.20	0.00	Y	Arm 8 Left	11.00	100.0 %	1703	1703		
7/2 (Crossgate)	3.20	0.00	Y	Arm 10 Right	22.00	100.0 %	1811	1811		
8/1 (Beach Rd)	3.50	0.00	Y	Arm 2 Ahead Arm 12 Left	Inf 10.00	100.0 %	1965	1965		
8/2 (Beach Rd)	3.50	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1965	1965		
9/1		<u> </u>	Infinite S	Saturation Flow	<u> </u>	<u> </u>	Inf	Inf		
10/1			Infinite S	Saturation Flow			Inf	Inf		
10/2			Infinite S	Saturation Flow			Inf	Inf		
11/1			Infinite S	Saturation Flow			Inf	Inf		
12/1 (Charlotte St Lane 1)			Infinite S	Saturation Flow			Inf	Inf		
13/1			Infinite S	Saturation Flow			Inf	Inf		

Scenario 2: 'Friday Base + Interchange' (FG2: 'Friday Base + Interchange', Plan 1: 'Staging Plan No. 1')
Traffic Flows, Desired

Desired Flow:

	Destination									
		Α	В	С	D	Е	Tot.			
	Α	0	301	273	0	0	574			
	В	248	0	135	112	0	495			
Origin	С	298	543	0	57	0	898			
	D	0	2	0	0	0	2			
	Е	0	0	0	0	0	0			
	Tot.	546	846	408	169	0	1969			

Traffic Lane Flows

Traffic La	ne Flows
Lane	Scenario 2: Friday Base + Interchange
Junction: 0	Crossgate / Beach Road
1/1	301
1/2	273
2/1	169
2/2	546
3/1	2
4/1	301
4/2	273
5/1	2
6/1	247
6/2	248
7/1	355
7/2	543
8/1	169
8/2	546
9/1	546
10/1	2
10/2	844
11/1	408
12/1	0
13/1	169

Lane Saturation Flows

Junction: Crossgate	/ Beach	Road						
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 (Beach Rd)	3.00	0.00	Y	Arm 4 Left	43.00	100.0 %	1850	1850
1/2 (Beach Rd)	3.00	0.00	Y	Arm 4 Left	43.00	100.0 %	1850	1850
2/1 (Beach Rd)	3.50	0.00	Y	Arm 13 Ahead	16.00	100.0 %	1797	1797
2/2 (Beach Rd)	3.50	0.00	Y	Arm 9 Right	Inf	100.0 %	1965	1965
3/1 (Fowler St)	3.80	0.00	Y	Arm 4 Ahead Arm 5 Ahead	23.00	0.0 %	1873	1873
4/1 (Beach Rd)	3.65	0.00	Y	Arm 10 Ahead	Inf	100.0 %	1980	1980
4/2 (Beach Rd)	3.65	0.00	Y	Arm 11 Right	18.00	100.0 %	1828	1828
5/1 (Beach Rd)	3.90	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2005	2005
6/1 (Westoe Rd)	3.50	0.00	Y	Arm 8 Ahead	Inf	45.3 %	1829	1829
				Arm 11 Left	11.00	54.7 %		
6/2 (Westoe Rd)	3.50	0.00	Y	Arm 8 Ahead	Inf	100.0 %	1965	1965
7/1 (Crossgate)	3.20	0.00	Y	Arm 8 Left	11.00	100.0 %	1703	1703
7/2 (Crossgate)	3.20	0.00	Y	Arm 10 Right	22.00	100.0 %	1811	1811
8/1	3.50	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1965	1965
(Beach Rd)	3.30	0.00	•	Arm 12 Left	10.00	0.0 %	1903	1903
8/2 (Beach Rd)	3.50	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1965	1965
9/1			Infinite S	Saturation Flow			Inf	Inf
10/1			Infinite S	Saturation Flow			Inf	Inf
10/2	Infinite Saturation Flow Inf Inf							
11/1	Infinite Saturation Flow Inf Inf							
12/1 (Charlotte St Lane 1)			Infinite S	Saturation Flow			Inf	Inf
13/1			Infinite S	Saturation Flow			Inf	Inf

Scenario 3: 'Friday Base + Int + Masterplan' (FG3: 'Friday Base + Int + Masterplan', Plan 1: 'Staging Plan No. 1')
Traffic Flows, Desired

Desired Flow:

		Destination											
		Α	В	С	D	Е	Tot.						
	Α	0	310	281	82	0	673						
	В	254	0	144	282	0	680						
Origin	С	330	582	0	373	0	1285						
	D	83	183	250	0	0	516						
	Е	0	0	0	0	0	0						
	Tot.	667	1075	675	737	0	3154						

Traffic Lane Flows

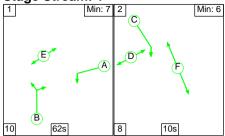
Traffic La	ne Flows
Lane	Scenario 3: Friday Base + Int + Masterplan
Junction: 0	Crossgate / Beach Road
1/1	310
1/2	281
2/1	655
2/2	584
3/1	433
4/1	310
4/2	531
5/1	183
6/1	426
6/2	254
7/1	703
7/2	582
8/1	655
8/2	584
9/1	584
10/1	183
10/2	892
11/1	675
12/1	0
13/1	655

Lane Saturation Flows

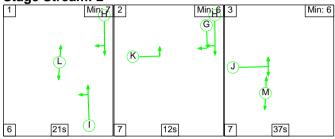
Junction: Crossgate		n Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)		
1/1 (Beach Rd)	3.00	0.00	Y	Arm 4 Left	43.00	100.0 %	1850	1850		
1/2 (Beach Rd)	3.00	0.00	Y	Arm 4 Left	43.00	100.0 %	1850	1850		
2/1 (Beach Rd)	3.50	0.00	Y	Arm 13 Ahead	16.00	100.0 %	1797	1797		
2/2 (Beach Rd)	3.50	0.00	Y	Arm 9 Right	Inf	100.0 %	1965	1965		
3/1 (Fowler St)	3.80	0.00	Y	Arm 4 Ahead Arm 5 Ahead	23.00	57.7 % 42.3 %	1873	1873		
4/1 (Beach Rd)	3.65	0.00	Y	Arm 10 Ahead	Inf	100.0 %	1980	1980		
4/2 (Beach Rd)	3.65	0.00	Y	Arm 11 Right	18.00	100.0 %	1828	1828		
5/1 (Beach Rd)	3.90	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2005	2005		
6/1 (Westoe Rd)	3.50	0.00	Y	Arm 8 Ahead Arm 11 Left	Inf 11.00	66.2 % 33.8 %	1878	1878		
6/2 (Westoe Rd)	3.50	0.00	Y	Arm 8 Ahead	Inf	100.0 %	1965	1965		
7/1 (Crossgate)	3.20	0.00	Y	Arm 8 Left	11.00	100.0 %	1703	1703		
7/2 (Crossgate)	3.20	0.00	Y	Arm 10 Right	22.00	100.0 %	1811	1811		
8/1 (Beach Rd)	3.50	0.00	Y	Arm 2 Ahead Arm 12 Left	Inf 10.00	100.0 %	1965	1965		
8/2 (Beach Rd)	3.50	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1965	1965		
9/1			Infinite S	Saturation Flow			Inf	Inf		
10/1			Infinite S	Saturation Flow			Inf	Inf		
10/2		Infinite Saturation Flow Inf Inf								
11/1		Infinite Saturation Flow Inf Inf								
12/1 (Charlotte St Lane 1)			Infinite S	Saturation Flow			Inf	Inf		
13/1			Infinite S	Saturation Flow			Inf	Inf		

Scenario 1: 'Base Friday Peak' (FG1: 'Base Friday Peak', Plan 1: 'Staging Plan No. 1') **Stage Sequence Diagram**

Stage Stream: 1



Stage Stream: 2

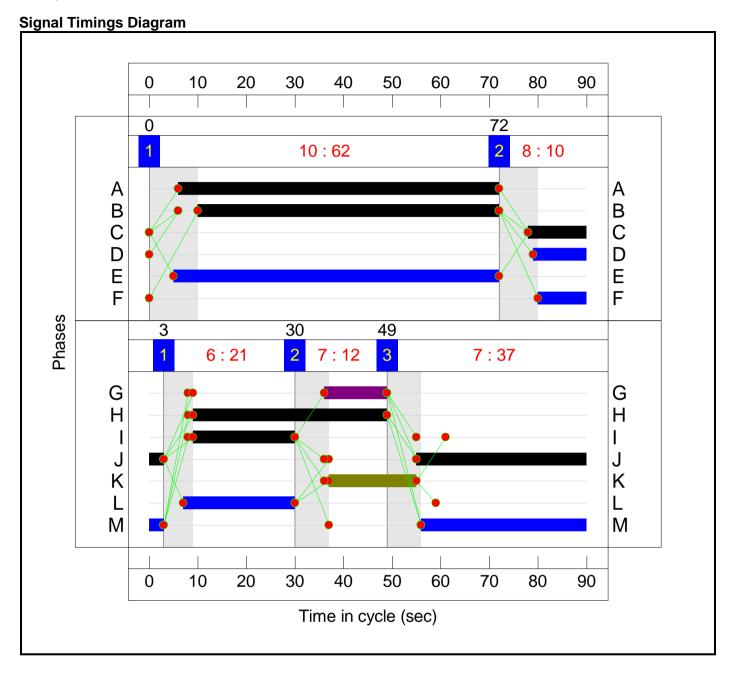


Stage Timings Stage Stream: 1

Stage	1	2
Duration	62	10
Change Point	0	72

Stage Stream: 2

Stage	1	2	3							
Duration	21	12	37							
Change Point	3	30	49							



Full Input Data And Results

Network Layout Diagram

Network Results

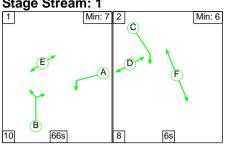
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	57.7%
Crossgate / Beach Road	-	-	N/A	-	-		-	-	-	-	-	-	57.7%
1/1	Beach Rd Left	U	1	N/A	А		1	66	-	301	1850	1377	21.9%
1/2	Beach Rd Left	U	1	N/A	А		1	66	-	273	1850	1377	19.8%
2/1	Beach Rd Ahead	U	1	N/A	В		1	62	-	157	1797	1258	12.5%
2/2	Beach Rd Right	U	1	N/A	В		1	62	-	546	1965	1375	39.7%
3/1	Fowler St Ahead Ahead2	U	1	N/A	С		1	12	-	124	1873	271	45.8%
4/1	Beach Rd Ahead	U	2	N/A	Н		1	40	-	303	1980	902	33.6%
4/2	Beach Rd Right	0	2	N/A	Н	G	1	40	13	305	1828	535	57.0%
5/1	Beach Rd Ahead	U	N/A	N/A	-		-	-	-	90	2005	2005	4.5%
6/1	Westoe Rd Ahead Left	U	2	N/A	I		1	21	-	247	1829	447	55.2%
6/2	Westoe Rd Ahead	U	2	N/A	I		1	21	-	248	1965	480	51.6%
7/1	Crossgate Left	U	2	N/A	J	К	1	56	18	343	1703	1079	31.8%
7/2	Crossgate Right	U	2	N/A	J		1	38	-	453	1811	785	57.7%
8/1	Beach Rd Ahead Left	U	N/A	N/A	-		-	-	-	157	1965	1965	8.0%
8/2	Beach Rd Ahead	U	N/A	N/A	-		-	-	-	546	1965	1965	27.8%
9/1		U	N/A	N/A	-		-	-	-	546	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	90	Inf	Inf	0.0%
10/2		U	N/A	N/A	-		-	-	-	756	Inf	Inf	0.0%
11/1		U	N/A	N/A	-		-	-	-	440	Inf	Inf	0.0%

12/1	Charlotte St	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	157	Inf	Inf	0.0%
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	-	-	110	189	6	12.1	4.3	0.5	16.9	-	-	-	-
Crossgate / Beach Road	-	-	110	189	6	12.1	4.3	0.5	16.9	-	-	-	-
1/1	301	301	-	-	-	0.3	0.1	-	0.4	5.2	2.3	0.1	2.4
1/2	273	273	-	-	-	0.3	0.1	-	0.4	5.1	2.0	0.1	2.1
2/1	157	157	-	-	-	0.1	0.1	-	0.1	2.8	0.3	0.1	0.4
2/2	546	546	-	-	-	0.4	0.3	-	0.7	4.7	2.4	0.3	2.7
3/1	124	124	-	-	-	1.2	0.4	-	1.6	47.5	2.8	0.4	3.2
4/1	303	303	-	-	-	1.0	0.3	-	1.3	15.3	4.7	0.3	4.9
4/2	305	305	110	189	6	1.7	0.7	0.5	2.8	33.2	6.6	0.7	7.2
5/1	90	90	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
6/1	247	247	-	-	-	2.0	0.6	-	2.7	38.6	5.4	0.6	6.0
6/2	248	248	-	-	-	2.0	0.5	-	2.6	37.1	5.3	0.5	5.8
7/1	343	343	-	-	-	0.7	0.2	-	1.0	10.0	3.9	0.2	4.1
7/2	453	453	-	-	-	2.4	0.7	-	3.1	24.7	8.6	0.7	9.2
8/1	157	157	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
8/2	546	546	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
9/1	546	546	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	90	90	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	756	756	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	440	440	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	157	157	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
			Stream: 2 PRC fo	or Signalled Lanes (%) or Signalled Lanes (%) C Over All Lanes (%):		Total Delay	for Signalled Lane for Signalled Lane Delay Over All Lan	es (pcuHr): 13.3	7 Cycle	e Time (s): 90 e Time (s): 90			

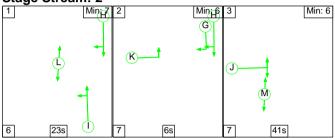
Scenario 2: 'Friday Base + Interchange' (FG2: 'Friday Base + Interchange', Plan 1: 'Staging Plan No. 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2

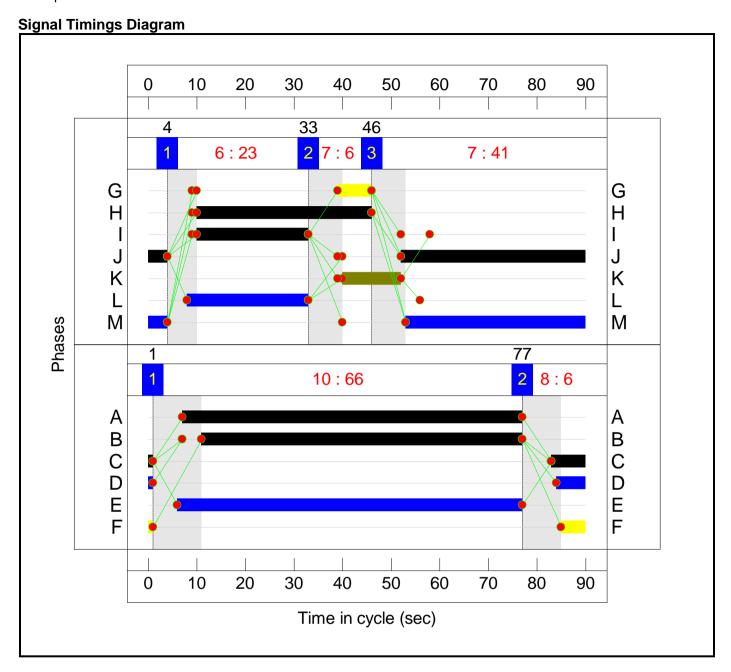


Stage Timings Stage Stream: 1

Stage	1	2
Duration	66	6
Change Point	1	77

Stage Stream: 2

Stage	1	2	3	
Duration	23	6	41	
Change Point	4	33	46	



Full Input Data And Results

Network Layout Diagram

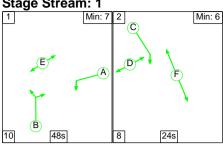
Network Results

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	-	-	N/A	-	-		-	-	-	-	-	-	62.8%
Crossgate / Beach Road	-	-	N/A	-	-		-	-	-	-	-	-	62.8%
1/1	Beach Rd Left	U	1	N/A	Α		1	70	-	301	1850	1459	20.6%
1/2	Beach Rd Left	U	1	N/A	А		1	70	-	273	1850	1459	18.7%
2/1	Beach Rd Ahead	U	1	N/A	В		1	66	-	169	1797	1338	12.6%
2/2	Beach Rd Right	U	1	N/A	В		1	66	-	546	1965	1463	37.3%
3/1	Fowler St Ahead Ahead2	U	1	N/A	С		1	8	-	2	1873	187	1.1%
4/1	Beach Rd Ahead	U	2	N/A	Н		1	36	-	301	1980	814	37.0%
4/2	Beach Rd Right	0	2	N/A	Н	G	1	36	7	273	1828	438	62.4%
5/1	Beach Rd Ahead	U	N/A	N/A	-		-	-	-	2	2005	2005	0.1%
6/1	Westoe Rd Ahead Left	U	2	N/A	I		1	23	-	247	1829	488	50.6%
6/2	Westoe Rd Ahead	U	2	N/A	I		1	23	-	248	1965	524	47.3%
7/1	Crossgate Left	U	2	N/A	J	K	1	54	12	355	1703	1041	34.1%
7/2	Crossgate Right	U	2	N/A	J		1	42	-	543	1811	865	62.8%
8/1	Beach Rd Ahead Left	U	N/A	N/A	-		-	-	-	169	1965	1965	8.6%
8/2	Beach Rd Ahead	U	N/A	N/A	-		-	-	-	546	1965	1965	27.8%
9/1		U	N/A	N/A	-		-	-	-	546	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	2	Inf	Inf	0.0%
10/2		U	N/A	N/A	-		-	-	-	844	Inf	Inf	0.0%
11/1		U	N/A	N/A	-		-	-	-	408	Inf	Inf	0.0%

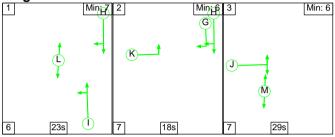
12/1	Charlotte St	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	169	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	134	133	6	11.1	4.0	0.5	15.6	-	-	-	-
Crossgate / Beach Road	-	-	134	133	6	11.1	4.0	0.5	15.6	-	-	-	-
1/1	301	301	-	-	-	0.2	0.1	-	0.3	4.0	1.8	0.1	2.0
1/2	273	273	-	-	-	0.2	0.1	-	0.3	3.9	1.7	0.1	1.8
2/1	169	169	-	-	-	0.0	0.1	-	0.1	2.6	0.3	0.1	0.4
2/2	546	546	-	-	-	0.3	0.3	-	0.6	3.8	1.9	0.3	2.1
3/1	2	2	-	-	-	0.0	0.0	-	0.0	46.6	0.0	0.0	0.1
4/1	301	301	-	-	-	1.3	0.3	-	1.6	19.5	5.1	0.3	5.4
4/2	273	273	134	133	6	1.7	0.8	0.5	3.0	39.2	6.1	0.8	6.9
5/1	2	2	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
6/1	247	247	-	-	-	1.9	0.5	-	2.4	35.4	5.2	0.5	5.7
6/2	248	248	-	-	-	1.9	0.4	-	2.4	34.2	5.2	0.4	5.6
7/1	355	355	-	-	-	0.8	0.3	-	1.1	11.2	4.3	0.3	4.6
7/2	543	543	-	-	-	2.6	0.8	-	3.5	23.1	10.1	0.8	10.9
8/1	169	169	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
8/2	546	546	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
9/1	546	546	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	2	2	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	844	844	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	408	408	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	169	169	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 Stream: 1 PRC for Signalled Lanes (%): 141.1 Total Delay for Signalled Lanes (pcuHr): 1.35 Cycle Time (s): 90 C1 Stream: 2 PRC for Signalled Lanes (%): 43.4 Total Delay for Signalled Lanes (pcuHr): 13.98 Cycle Time (s): 90 PRC Over All Lanes (%): 43.4 Total Delay Over All Lanes (pcuHr): 15.56													

Scenario 3: 'Friday Base + Int + Masterplan' (FG3: 'Friday Base + Int + Masterplan', Plan 1: 'Staging Plan No. 1') **Stage Sequence Diagram**

Stage Stream: 1



Stage Stream: 2

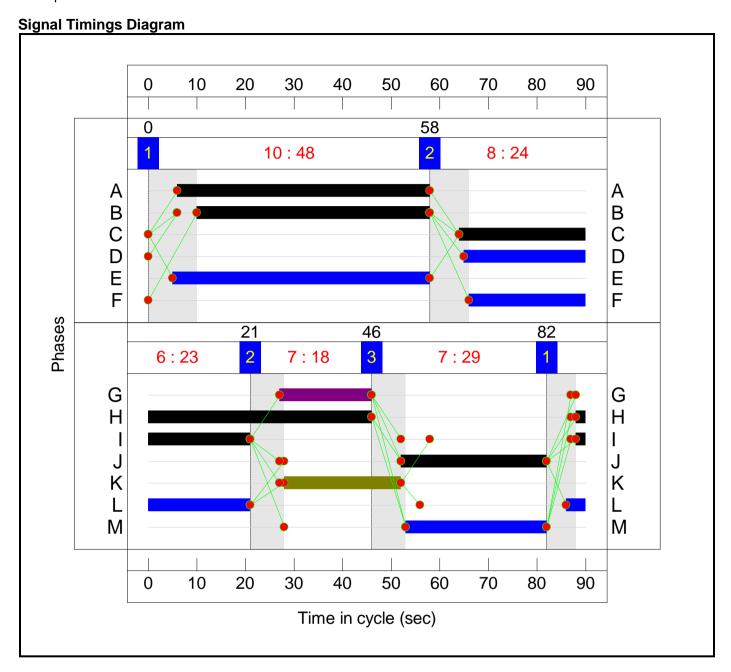


Stage Timings Stage Stream: 1

Stage	1	2
Duration	48	24
Change Point	0	58

Stage Stream: 2

Stage	1	2	3
Duration	23	18	29
Change Point	82	21	46



Full Input Data And Results

Network Layout Diagram

Network Results

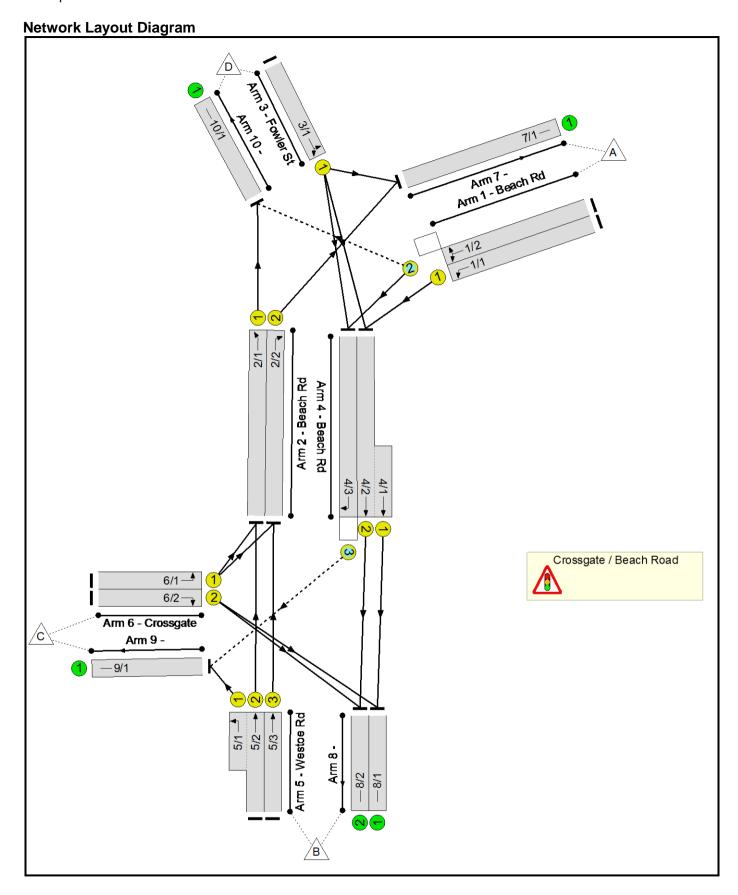
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	93.3%
Crossgate / Beach Road	-	-	N/A	-	-		-	-	-	-	-	-	93.3%
1/1	Beach Rd Left	U	1	N/A	Α		1	52	-	310	1850	1089	28.5%
1/2	Beach Rd Left	U	1	N/A	А		1	52	-	281	1850	1089	25.8%
2/1	Beach Rd Ahead	U	1	N/A	В		1	48	-	655	1797	978	66.9%
2/2	Beach Rd Right	U	1	N/A	В		1	48	-	584	1965	1070	54.6%
3/1	Fowler St Ahead Ahead2	U	1	N/A	С		1	26	-	433	1873	562	77.1%
4/1	Beach Rd Ahead	U	2	N/A	Н		1	48	-	310	1980	1078	28.8%
4/2	Beach Rd Right	0	2	N/A	Н	G	1	48	19	531	1828	580	91.6%
5/1	Beach Rd Ahead	U	N/A	N/A	-		-	-	-	183	2005	2005	9.1%
6/1	Westoe Rd Ahead Left	U	2	N/A	1		1	23	-	426	1878	501	85.1%
6/2	Westoe Rd Ahead	U	2	N/A	1		1	23	-	254	1965	524	48.5%
7/1	Crossgate Left	U	2	N/A	J	K	1	54	24	703	1703	1041	67.5%
7/2	Crossgate Right	U	2	N/A	J		1	30	-	582	1811	624	93.3%
8/1	Beach Rd Ahead Left	U	N/A	N/A	-		-	-	-	655	1965	1965	33.3%
8/2	Beach Rd Ahead	U	N/A	N/A	-		-	-	-	584	1965	1965	29.7%
9/1		U	N/A	N/A	-		-	-	-	584	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	183	Inf	Inf	0.0%
10/2		U	N/A	N/A	-		-	-	-	892	Inf	Inf	0.0%
11/1		U	N/A	N/A	-		-	-	-	675	Inf	Inf	0.0%

12/1	Charlotte St	U	N/A	N/A	-		_	-	-	0	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	655	Inf	Inf	0.0%
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	-	-	32	467	31	25.5	18.6	0.7	44.8	-	-	-	-
Crossgate / Beach Road	-	-	32	467	31	25.5	18.6	0.7	44.8	-	-	-	-
1/1	310	310	-	-	-	0.8	0.2	-	1.0	11.5	3.8	0.2	4.0
1/2	281	281	-	-	-	0.7	0.2	-	0.9	11.2	3.4	0.2	3.5
2/1	655	655	-	-	-	1.8	1.0	-	2.8	15.2	10.1	1.0	11.1
2/2	584	584	-	-	-	1.6	0.6	-	2.2	13.8	9.0	0.6	9.6
3/1	433	433	-	-	-	3.4	1.6	-	5.1	42.3	9.7	1.6	11.4
4/1	310	310	-	-	-	0.6	0.2	-	0.8	8.8	1.5	0.2	1.7
4/2	531	531	32	467	31	4.0	4.6	0.7	9.4	63.4	13.0	4.6	17.6
5/1	183	183	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
6/1	426	426	-	-	-	3.7	2.7	-	6.4	53.8	10.1	2.7	12.7
6/2	254	254	-	-	-	2.0	0.5	-	2.4	34.4	5.3	0.5	5.8
7/1	703	703	-	-	-	2.3	1.0	-	3.3	16.9	11.5	1.0	12.6
7/2	582	582	-	-	-	4.6	5.5	-	10.1	62.6	13.9	5.5	19.4
8/1	655	655	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
8/2	584	584	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
9/1	584	584	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	183	183	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	892	892	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	675	675	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	655	655	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 Stream: 1 PRC for Signalled Lanes (%): 16.8 Total Delay for Signalled Lanes (pcuHr): 11.95 Cycle Time (s): 90 C1 Stream: 2 PRC for Signalled Lanes (%): -3.7 Total Delay for Signalled Lanes (pcuHr): 32.32 Cycle Time (s): 90 PRC Over All Lanes (%): -3.7 Total Delay Over All Lanes(pcuHr): 44.78													

Full Input Data And Results Full Input Data And Results

User and Project Details

Project:	South Shields Town Centre Regeneration
Title:	Crossgate / Beach Road Proposed Layout
Location:	South Shields, South Tyneside
File name:	2015 05 12 INTERIM Crossgate-Beach Rd.lsg3x
Author:	Rachel Broadbent
Company:	JMP
Address:	
Notes:	



Phase Diagram

Phase Input Data

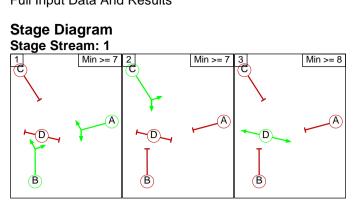
Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
А	Traffic	1		7	7
В	Traffic	1		7	7
С	Traffic	1		7	7
D	Pedestrian	1		8	8
E	Ind. Arrow	2	F	7	7
F	Traffic	2		7	7
G	Traffic	2		7	7
Н	Traffic	2		7	7
I	Filter	2	Н	7	1
J	Pedestrian	2		6	6
К	Pedestrian	2		4	4

Phase Intergreens Matrix

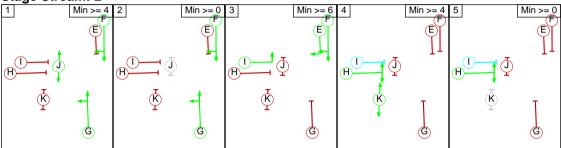
Phase intergreens Matrix												
				St	artir	ng F	Pha	se				
		Α	В	С	D	Е	F	G	Н	I	J	K
	Α		-	6	7	-	-	-	-	-	-	-
	В	-		6	4	-	-	-	-	-	-	-
	С	6	6		7	-	-	-	-	-	-	-
	D	16	16	16		-	-	-	-	-	-	-
Terminating	Е	-	-	-	-		-	6	6	-	-	7
Phase	F	-	-	-	-	-		-	6	-	-	7
	G	-	-	-	-	6	-		6	6	-	7
	Н	-	-	-	-	6	6	6		-	4	-
	I	-	-	1	-	-	-	6	-		4	-
	J	-	-	-	-	-	-	-	7	7		-
	K	-	-	1	-	5	5	5	-	-	-	

Phases in Stage

Stream	Stage No.	Phases in Stage
1	1	АВ
1	2	С
1	3	D
2	1	FGJ
2	2	FG
2	3	EFI
2	4	нк
2	5	Н



Stage Stream: 2



Phase Delays

Stage Stream: 1

Term. Stage	Start Stage	Phase	Туре	Value	Cont value					
	There are no Phase Delays defined									

Stage Stream: 2

Term. Stage	Start Stage	Phase	Туре	Value	Cont value
	There are no	Phase D	elays d	efined	

Prohibited Stage Change

Stage Stream: 1

	To Stage								
		1	2	3					
From	1		6	7					
Stage	2	6		7					
	3	16	16						

Stage Stream: 2

		To Stage								
		1	2	3	4	5				
	1		0	7	7	7				
From	2	0		6	7	6				
Stage	3	X	X		7	6				
	4	6	6	6		0				
	5	6	6	6	0					

Full Input Data And Results
Give-Way Lane Input Data

Junction: C	rossgate / Be	each Road										
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)	
1/2	10/1 (Right)	1439	0	2/1	1.09	All	2.00	2.00	0.50	2	2.00	
(Beach Rd)	10/1 (Rigiti)	1439	0	2/2	1.09	All	2.00		0.50	2	2.00	
4/3	0/1 (Diabt)	1440	0	5/1	1.09	All	2.00		0.50	2	2.00	
(Beach Rd)	9/1 (Right)	1440	0	5/2	1.09	All	2.00	-	0.50		2.00	

Lane Input Data

Junction: Cr		te / Beach	Road									
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 (Beach Rd)	U	А	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 4 Left	28.00
1/2	0	A	2	3	60.0	Geom	_	3.00	0.00	Y	Arm 4 Left	28.00
(Beach Rd)		,,	_	J	00.0	GCOIII		0.00	0.00	'	Arm 10 Right	8.50
2/1 (Beach Rd)	U	В	2	3	7.0	Geom	-	3.40	0.00	Y	Arm 10 Ahead	33.00
2/2 (Beach Rd)	U	В	2	3	7.0	Geom	-	3.40	0.00	Y	Arm 7 Right	47.00
3/1	U	С	2	3	60.0	Geom	_	3.65	0.00	Y	Arm 4 Ahead	Inf
(Fowler St)	J	C	2	3	00.0	Geom	-	3.03	0.00	1	Arm 7 Left	Inf
4/1 (Beach Rd)	U	F	2	3	6.1	Geom	-	3.65	0.00	Y	Arm 8 Ahead	Inf
4/2 (Beach Rd)	U	F	2	3	7.0	Geom	-	3.65	0.00	N	Arm 8 Ahead	Inf
4/3 (Beach Rd)	0	FE	2	3	7.0	Geom	-	3.65	0.00	Y	Arm 9 Right	14.00
5/1 (Westoe Rd)	U	G	2	3	5.0	Geom	-	3.25	0.00	Y	Arm 9 Left	11.00
5/2 (Westoe Rd)	U	G	2	3	60.0	Geom	-	3.25	0.00	N	Arm 2 Ahead	Inf
5/3 (Westoe Rd)	U	G	2	3	60.0	Geom	-	3.25	0.00	Y	Arm 2 Ahead	Inf
6/1 (Crossgate)	U	ні	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 2 Left	12.00
6/2 (Crossgate)	U	Н	2	3	60.0	Geom	-	3.50	0.00	N	Arm 8 Right	16.00
7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1	U		2	3	60.0	Inf	-	-	-	-	-	-
8/2	U		2	3	60.0	Inf	-	-	-	-	1	-
9/1	U		2	3	60.0	Inf	-	-	-	-	-	-
10/1	U		2	3	60.0	Inf	-	-	-	-	ı	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'Base + Masterplan Friday Peak'	16:30	17:30	01:00	
2: 'Base + Interchange Friday Peak'	16:30	17:30	01:00	
3: 'Interim Friday Peak'	16:30	17:30	01:00	

Scenario 1: 'Interim Friday Peak' (FG2: 'Base + Interchange Friday Peak', Plan 1: 'Staging Plan No. 1')
Traffic Flows, Desired
Desired Flow:

	Destination								
		Α	В	С	D	Tot.			
	Α	0	301	273	0	574			
Origin	В	248	0	135	112	495			
Oligili	С	298	543	0	57	898			
	D	0	2	0	0	2			
	Tot.	546	846	408	169	1969			

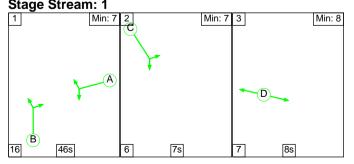
Traffic Lane Flows

Traffic Lane	FIOWS
Lane	Scenario 1: Interim Friday Peak
Junction: Cros	sgate / Beach Road
1/1	302
1/2	278
2/1	291
2/2	552
3/1	7
4/1 (short)	306
4/2 (with short)	306(In) 0(Out)
4/3	262
5/1 (short)	123
5/2 (with short)	293(In) 170(Out)
5/3	249
6/1	424
6/2	551
7/1	553
8/1	582
8/2	275
9/1	385
10/1	309

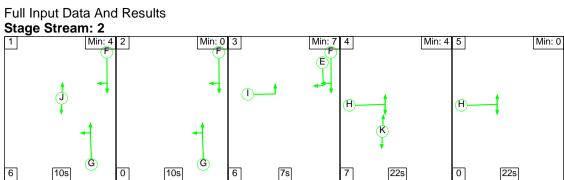
Lane Saturation Flows

Junction: Cr			oad							
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 (Beach Rd)	3.00	0.00	Y	Arm 4 Left	28.00	100.0 %	1818	1818		
1/2 (Beach Rd)	3.00	0.00	Y	Arm 4 Left Arm 10 Right	28.00 8.50	93.5 % 6.5 %	1804	1804		
2/1 (Beach Rd)	3.40	0.00	Y	Arm 10 Ahead	33.00	100.0 %	1870	1870		
2/2 (Beach Rd)	3.40	0.00	Y	Arm 7 Right	47.00	100.0 %	1895	1895		
3/1	2.65	0.00	Y	Arm 4 Ahead	Inf	85.7 %	1000	1080		
(Fowler St)	3.65	0.00	Ť	Arm 7 Left	Inf	14.3 %	1980	1980		
4/1 (Beach Rd)	3.65	0.00	Y	Arm 8 Ahead	Inf	100.0 %	1980	1980		
4/2 (Beach Rd)	3.65	0.00	N	Arm 8 Ahead	Inf	0.0 %	2120	2120		
4/3 (Beach Rd)	3.65	0.00	Y	Arm 9 Right	14.00	100.0 %	1788	1788		
5/1 (Westoe Rd)	3.25	0.00	Y	Arm 9 Left	11.00	100.0 %	1707	1707		
5/2 (Westoe Rd)	3.25	0.00	N	Arm 2 Ahead	Inf	100.0 %	2080	2080		
5/3 (Westoe Rd)	3.25	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1940	1940		
6/1 (Crossgate)	3.50	0.00	Y	Arm 2 Left	12.00	100.0 %	1747	1747		
6/2 (Crossgate)	3.50	0.00	0.00 N Arm 8 Right 16.00 100.0 %					1925		
7/1		Infinite Saturation Flow Inf Inf								
8/1		Infinite Saturation Flow Inf Inf								
8/2		Infinite Saturation Flow Inf Inf								
9/1		Infinite Saturation Flow Inf Inf								
10/1			Infinite S	Saturation Flow			Inf	Inf		

Scenario 1: 'Interim Friday Peak' (FG2: 'Base + Interchange Friday Peak', Plan 1: 'Staging Plan No. 1')
Stage Sequence Diagram
Stage Stream: 1







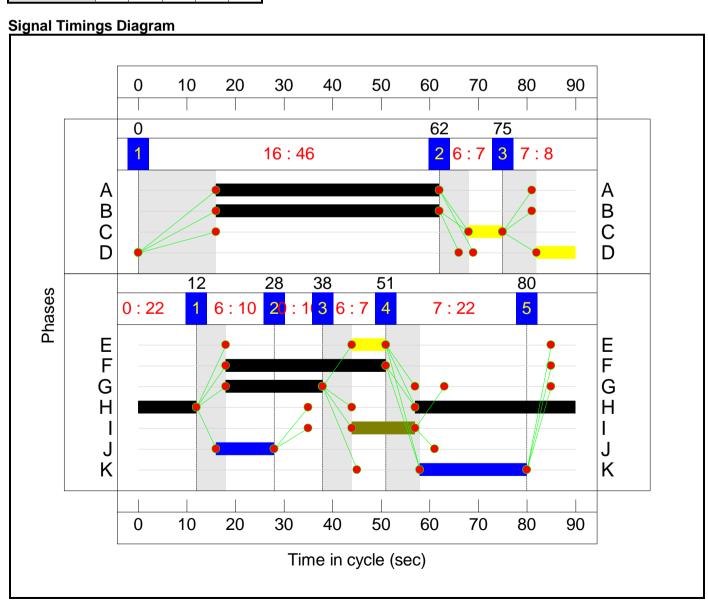
Stage Timings

Stage Stream: 1

Stage	1	2	3
Duration	46	7	8
Change Point	0	62	75

Stage Stream: 2

Stage	1	2	3	4	5
Duration	10	10	7	22	22
Change Point	12	28	38	51	80



Full Input Data And Results

Network Layout Diagram

Network Results

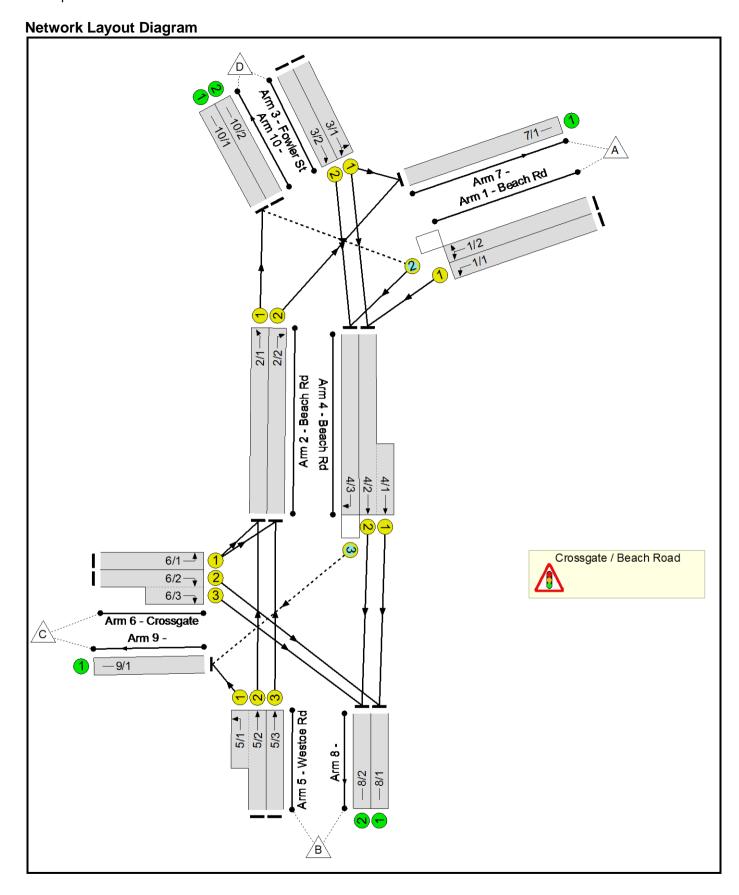
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Crossgate / Beach Road Proposed Layout	-	-	N/A	-	-		-	-	-	-	-	-	56.0%
Crossgate / Beach Road	-	-	N/A	-	-		-	-	-	-	-	-	56.0%
1/1	Beach Rd Left	U	1	N/A	A		1	46	-	302	1818	949	31.8%
1/2	Beach Rd Left Right	0	1	N/A	А		1	46	-	278	1804	942	29.5%
2/1	Beach Rd Ahead	U	1	N/A	В		1	46	-	291	1870	977	29.8%
2/2	Beach Rd Right	U	1	N/A	В		1	46	-	552	1895	990	55.8%
3/1	Fowler St Ahead Left	U	1	N/A	С		1	7	-	7	1980	176	4.0%
4/2+4/1	Beach Rd Ahead	U	2	N/A	F		1	33	-	306	2120:1980	748	40.9%
4/3	Beach Rd Right	0	2	N/A	F	Е	1	33	7	262	1788	482	54.4%
5/2+5/1	Westoe Rd Ahead Left	U	2	N/A	G		1	20	-	293	2080:1707	599	48.9%
5/3	Westoe Rd Ahead	U	2	N/A	G		1	20	-	249	1940	453	55.0%
6/1	Crossgate Left	U	2	N/A	н	I	1	58	13	424	1747	1145	37.0%
6/2	Crossgate Right	U	2	N/A	Н		1	45	-	551	1925	984	56.0%
7/1		U	N/A	N/A	-		-	-	-	553	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	582	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	275	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	385	Inf	Inf	0.0%
10/1		U	N/A	N/A	-		-	-	-	309	Inf	Inf	0.0%

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: Crossgate / Beach Road Proposed Layout	-	-	202	73	6	12.7	4.3	0.4	17.3	-	-	-	-
Crossgate / Beach Road	-	-	202	73	6	12.7	4.3	0.4	17.3	-	-	-	-
1/1	302	302	-	-	-	1.0	0.2	-	1.3	15.1	4.3	0.2	4.5
1/2	278	278	18	0	0	0.9	0.2	0.0	1.2	15.5	3.9	0.2	4.1
2/1	291	291	-	-	-	0.4	0.2	-	0.6	7.2	1.7	0.2	1.9
2/2	552	552	-	-	-	1.1	0.6	-	1.7	11.2	9.1	0.6	9.7
3/1	7	7	-	-	-	0.1	0.0	-	0.1	48.5	0.2	0.0	0.2
4/2+4/1	306	306	-	-	-	0.8	0.3	-	1.1	13.2	1.4	0.3	1.8
4/3	262	262	184	73	6	0.8	0.6	0.3	1.8	24.2	5.5	0.6	6.1
5/2+5/1	293	293	-	-	-	2.3	0.5	-	2.8	34.6	3.5	0.5	4.0
5/3	249	249	-	-	-	2.1	0.6	-	2.7	39.1	5.5	0.6	6.1
6/1	424	424	-	-	-	0.8	0.3	-	1.1	9.5	4.7	0.3	5.0
6/2	551	551	-	-	-	2.3	0.6	-	2.9	19.2	9.3	0.6	10.0
7/1	553	553	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	582	582	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	275	275	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	385	385	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	309	309	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
	-	C1 Stream	m: 2 PRC for Sig	gnalled Lanes (%): gnalled Lanes (%): er All Lanes (%):		Total Delay for	- Signalled Lanes (Signalled Lanes (y Over All Lanes(pcuHr): 12.47	Cycle	Time (s): 90 Time (s): 90			

Full Input Data And Results Full Input Data And Results

User and Project Details

Project:	South Shields Town Centre Regeneration
Title:	Crossgate / Beach Road Proposed Layout
Location:	South Shields, South Tyneside
File name:	2015 06 25 PROPOSED Crossgate-Beach Rd.lsg3x
Author:	Rachel Broadbent
Company:	JMP
Address:	
Notes:	



Phase Diagram

Phase Input Data

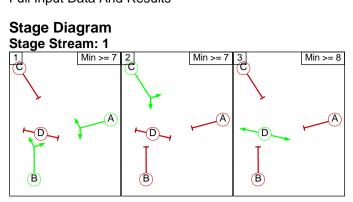
Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
А	Traffic	1		7	7
В	Traffic	1		7	7
С	Traffic	1		7	7
D	Pedestrian	1		8	8
E	Ind. Arrow	2	F	7	7
F	Traffic	2		7	7
G	Traffic	2		7	7
Н	Traffic	2		7	7
I	Filter	2	Н	7	1
J	Pedestrian	2		6	6
К	Pedestrian	2		4	4

Phase Intergreens Matrix

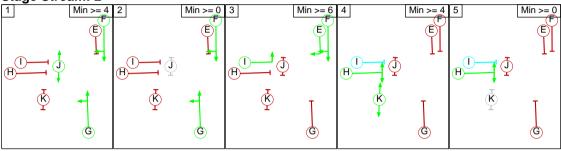
Phase intergreens Matrix												
		Starting Phase										
		Α	В	С	D	Е	F	G	Н	I	J	K
	Α		-	6	7	-	-	-	-	-	-	-
	В	-		6	4	-	-	-	-	-	-	-
	С	6	6		7	-	-	-	-	-	-	-
	D	16	16	16		-	-	-	-	-	-	-
Terminating	Е	-	-	-	-		-	6	6	-	-	7
Phase	F	-	-	-	-	-		-	6	-	-	7
	G	-	-	-	-	6	-		6	6	-	7
	Н	-	-	-	-	6	6	6		-	4	-
	I	-	-	1	-	-	-	6	-		4	-
	J	-	-	-	-	-	-	-	7	7		-
	K	-	-	1	-	5	5	5	-	-	-	

Phases in Stage

Stream	Stage No.	Phases in Stage
1	1	АВ
1	2	С
1	3	D
2	1	FGJ
2	2	FG
2	3	EFI
2	4	нк
2	5	Н



Stage Stream: 2



Phase Delays

Stage Stream: 1

Term. Stage	Start Stage	Phase	Туре	Value	Cont value	
There are no Phase Delays defined						

Stage Stream: 2

Term. Stage	Start Stage	Phase	Туре	Value	Cont value

Prohibited Stage Change

Stage Stream: 1

olago oli oaiiii i						
	To Stage					
		1	2	3		
From	1		6	7		
Stage	2	6		7		
	3	16	16			

Stage Stream: 2

Stage	Juleani. Z						
		To Stage					
		1	2	3	4	5	
	1		0	7	7	7	
From	2	0		6	7	6	
Stage	3	X	X		7	6	
	4	6	6	6		0	
	5	6	6	6	0		

Full Input Data And Results
Give-Way Lane Input Data

Junction: C	lunction: Crossgate / Beach Road										
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
1/2	10/1 (Right)	1439	0	2/1	1.09	All	2.00	2.00	0.50	2	2.00
(Beach Rd)	10/1 (Rigiti)	1439	0	2/2	1.09	All	2.00	2.00			
4/3	0/1 (Diabt)	1440	0	5/1	1.09	All	2.00	-	0.50	2	2.00
(Beach Rd)	9/1 (Right)	1440	0	5/2	1.09	All					

Full Input Data And Results Lane Input Data

Junction: Cr		te / Beach	Road									
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 (Beach Rd)	U	Α	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 4 Left	28.00
1/2	0	А	2	3	60.0	Geom	_	3.00	0.00	Y	Arm 4 Left	28.00
(Beach Rd)											Arm 10 Right	8.50
2/1 (Beach Rd)	U	В	2	3	7.0	Geom	-	3.40	0.00	Y	Arm 10 Ahead	33.00
2/2 (Beach Rd)	U	В	2	3	7.0	Geom	-	3.40	0.00	Y	Arm 7 Right	47.00
3/1	U	С	2	3	60.0	Geom	_	3.65	0.00	Y	Arm 4 Ahead	Inf
(Fowler St)			2	3	00.0	Geom	-	3.03	0.00	1	Arm 7 Left	Inf
3/2 (Fowler St)	U	С	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 4 Ahead	Inf
4/1 (Beach Rd)	U	F	2	3	6.1	Geom	-	3.65	0.00	Y	Arm 8 Ahead	Inf
4/2 (Beach Rd)	U	F	2	3	7.0	Geom	-	3.65	0.00	N	Arm 8 Ahead	Inf
4/3 (Beach Rd)	0	FE	2	3	7.0	Geom	-	3.65	0.00	Y	Arm 9 Right	14.00
5/1 (Westoe Rd)	U	G	2	3	5.0	Geom	-	3.25	0.00	Y	Arm 9 Left	11.00
5/2 (Westoe Rd)	U	G	2	3	60.0	Geom	-	3.25	0.00	N	Arm 2 Ahead	Inf
5/3 (Westoe Rd)	U	G	2	3	60.0	Geom	-	3.25	0.00	Y	Arm 2 Ahead	Inf
6/1 (Crossgate)	U	ні	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 2 Left	12.00
6/2 (Crossgate)	U	Н	2	3	60.0	Geom	-	3.50	0.00	N	Arm 8 Right	16.00
6/3 (Crossgate)	U	Н	2	3	5.0	Geom	-	3.65	0.00	Y	Arm 8 Right	16.00
7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1	U		2	3	60.0	Inf	-	-	-	-	-	-
8/2	U		2	3	60.0	Inf	-	-	-	-	-	-
9/1	U		2	3	60.0	Inf	-	-	-	-	-	-
10/1	U		2	3	60.0	Inf	-	-	-	-	-	-
10/2	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'friday Base + Int + Masterplan'	16:30	17:30	01:00	

Scenario 1: 'Friday Base + Int + Masterplan' (FG1: 'friday Base + Int + Masterplan', Plan 1: 'Staging Plan No. 1') Traffic Flows, Desired Desired Flow:

	Destination								
		Α	В	С	D	Tot.			
	А	0	310	281	82	673			
Origin	В	254	0	144	282	680			
Oligili	С	330	582	0	373	1285			
	D	83	183	250	0	516			
	Tot.	667	1075	675	737	3154			

Traffic Lane Flows

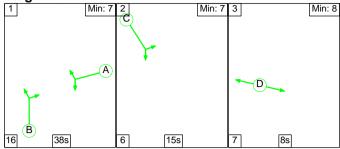
Traffic Lane	riows
Lane	Scenario 1: Friday Base + Int + Masterplan
Junction: Cros	sgate / Beach Road
1/1	310
1/2	363
2/1	655
2/2	584
3/1	266
3/2	250
4/1 (short)	493
4/2	493(In)
(with short)	0(Out)
4/3	531
5/1 (short)	144
5/2 (with short)	426(In) 282(Out)
5/3	254
6/1	703
6/2 (with short)	582(In) 304(Out)
6/3 (short)	278
7/1	667
8/1	797
8/2	278
9/1	675
10/1	737
10/2	0

Lane Saturation Flows

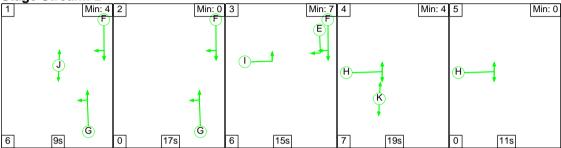
Junction: Crossgate / Beach Road											
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)			
1/1 (Beach Rd)	3.00	0.00	Y	Arm 4 Left	28.00	100.0 %	1818	1818			
1/2 (Beach Rd)	3.00	0.00	Y	Arm 4 Left Arm 10 Right	28.00 8.50	77.4 % 22.6 %	1771	1771			
2/1 (Beach Rd)	3.40	0.00	Y	Arm 10 Ahead	33.00	100.0 %	1870	1870			
2/2 (Beach Rd)	3.40	0.00	Y	Arm 7 Right	47.00	100.0 %	1895	1895			
3/1 (Fowler St)	3.65	0.00	Y	Arm 4 Ahead Arm 7 Left	Inf Inf	68.8 % 31.2 %	1980	1980			
3/2 (Fowler St)	3.65	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1980	1980			
4/1 (Beach Rd)	3.65	0.00	Y	Arm 8 Ahead	Inf	100.0 %	1980	1980			
4/2 (Beach Rd)	3.65	0.00	N	Arm 8 Ahead	Inf	0.0 %	2120	2120			
4/3 (Beach Rd)	3.65	0.00	Y	Arm 9 Right	14.00	100.0 %	1788	1788			
5/1 (Westoe Rd)	3.25	0.00	Y	Arm 9 Left	11.00	100.0 %	1707	1707			
5/2 (Westoe Rd)	3.25	0.00	N	Arm 2 Ahead	Inf	100.0 %	2080	2080			
5/3 (Westoe Rd)	3.25	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1940	1940			
6/1 (Crossgate)	3.50	0.00	Y	Arm 2 Left	12.00	100.0 %	1747	1747			
6/2 (Crossgate)	3.50	0.00	N	Arm 8 Right	16.00	100.0 %	1925	1925			
6/3 (Crossgate)	3.65	0.00	Y	Arm 8 Right	16.00	100.0 %	1810	1810			
7/1			Infinite S	Saturation Flow			Inf	Inf			
8/1			Infinite S	Saturation Flow			Inf	Inf			
8/2			Infinite S	Saturation Flow			Inf	Inf			
9/1		Infinite Saturation Flow Inf Inf									
10/1			Infinite S	Saturation Flow			Inf	Inf			
10/2			Infinite S	Saturation Flow			Inf	Inf			

Scenario 1: 'Friday Base + Int + Masterplan' (FG1: 'friday Base + Int + Masterplan', Plan 1: 'Staging Plan No. 1') Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2

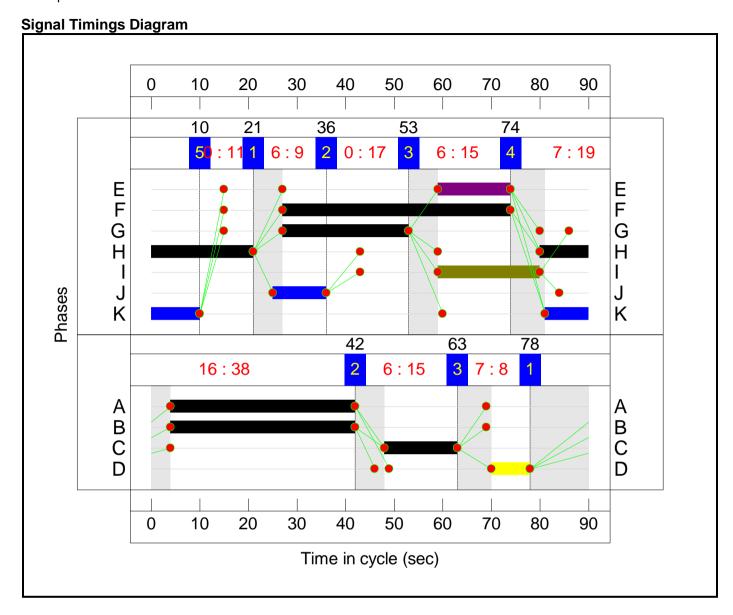


Stage Timings Stage Stream: 1

Stage	1	2	3
Duration	38	15	8
Change Point	78	42	63

Stage Stream: 2

otago otroam.												
Stage	1	2	3	4	5							
Duration	9	17	15	19	11							
Change Point	21	36	53	74	10							



Full Input Data And Results

Network Layout Diagram

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: Crossgate / Beach Road Proposed Layout	-	-	N/A	-	-		-	-	-	-	-	-	86.5%
Crossgate / Beach Road	-	-	N/A	-	-		-	-	-	-	-	-	86.5%
1/1	Beach Rd Left	U	1	N/A	Α		1	38	-	310	1818	788	39.4%
1/2	Beach Rd Left Right	0	1	N/A	А		1	38	-	363	1771	648	56.0%
2/1	Beach Rd Ahead	U	1	N/A	В		1	38	-	655	1870	810	80.8%
2/2	Beach Rd Right	U	1	N/A	В		1	38	-	584	1895	821	71.1%
3/1	Fowler St Ahead Left	U	1	N/A	С		1	15	-	266	1980	352	75.6%
3/2	Fowler St Ahead	U	1	N/A	С		1	15	-	250	1980	352	71.0%
4/2+4/1	Beach Rd Ahead	U	2	N/A	F		1	47	-	493	2120:1980	1056	46.7%
4/3	Beach Rd Right	0	2	N/A	F	E	1	47	15	531	1788	614	86.5%
5/2+5/1	Westoe Rd Ahead Left	U	2	N/A	G		1	26	-	426	2080:1707	690	61.8%
5/3	Westoe Rd Ahead	U	2	N/A	G		1	26	-	254	1940	582	43.6%
6/1	Crossgate Left	U	2	N/A	Н	1	1	52	21	703	1747	1029	68.3%
6/2+6/3	Crossgate Right	U	2	N/A	Н		1	31	-	582	1925:1810	860	67.6%
7/1		U	N/A	N/A	-		-	-	-	667	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	797	Inf	Inf	0.0%
8/2		U	N/A	N/A	-		-	-	-	278	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	675	Inf	Inf	0.0%

ruli iliput Data A	na riodalio		1			1	li .		1				1
10/1		U	N/A	N/A	-		-	-	-	737	Inf	Inf	0.0%
10/2		U	N/A	N/A	-		-	-	-	0	Inf	Inf	-
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: Crossgate / Beach Road Proposed Layout	-	-	230	374	9	28.1	13.6	1.0	42.7	-	-	-	-
Crossgate / Beach Road	-	-	230	374	9	28.1	13.6	1.0	42.7	-	-	-	-
1/1	310	310	-	-	-	1.5	0.3	-	1.8	21.2	5.3	0.3	5.6
1/2	363	363	73	0	9	1.8	0.6	0.3	2.8	27.5	6.5	0.6	7.1
2/1	655	655	-	-	-	2.9	2.1	-	5.0	27.2	10.4	2.1	12.5
2/2	584	584	-	-	-	2.4	1.2	-	3.6	22.4	8.8	1.2	10.0
3/1	266	266	-	-	-	2.6	1.5	-	4.1	55.4	6.3	1.5	7.8
3/2	250	250	-	-	-	2.4	1.2	-	3.6	52.1	5.8	1.2	7.0
4/2+4/1	493	493	-	-	-	1.2	0.4	-	1.6	12.0	7.0	0.4	7.4
4/3	531	531	156	374	0	2.4	3.0	0.7	6.0	40.8	13.3	3.0	16.2
5/2+5/1	426	426	-	-	-	3.0	0.8	-	3.8	32.0	6.2	0.8	7.0
5/3	254	254	-	-	-	1.8	0.4	-	2.2	30.9	5.1	0.4	5.5
6/1	703	703	-	-	-	2.5	1.1	-	3.6	18.2	11.9	1.1	13.0
6/2+6/3	582	582	-	-	-	3.6	1.0	-	4.6	28.7	6.7	1.0	7.8
7/1	667	667	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	797	797	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	278	278	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	675	675	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	737	737	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	-	-	-	-	-	-	-	-	-	-	-	-	-

C1 Stream: 1 PRC for Signalled Lanes (%): C1 Stream: 2 PRC for Signalled Lanes (%): PRC Over All Lanes (%): Total Delay for Signalled Lanes (pcuHr): Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes(pcuHr): 20.89 Cycle Time (s): 90 21.82 Cycle Time (s): 90 42.71

s (%): 11.3 s (%): 4.1 (%): 4.1