

Proposed Extension to Retail Units, Cheetham Hill

Transport Assessment

Sports Direct Property Limited

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Quality information

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1. Introduction

1.1 Introduction

AECOM have produced this Transport Assessment (TA) on behalf of Sports Direct in support of proposals for a mezzanine floor extension to existing retail units, located within Cheetham Hill Retail Park, Manchester.

The site is located north of Manchester city centre, within Cheetham Hill Retail Park which currently contains 4 retail units. It is bounded to the north by Queens Road and a predominantly residential area, to the east by Cheetham Hill Road and the Manchester Fort Shopping Park, and to the southwest by Elizabeth Street and many wholesale retailers.

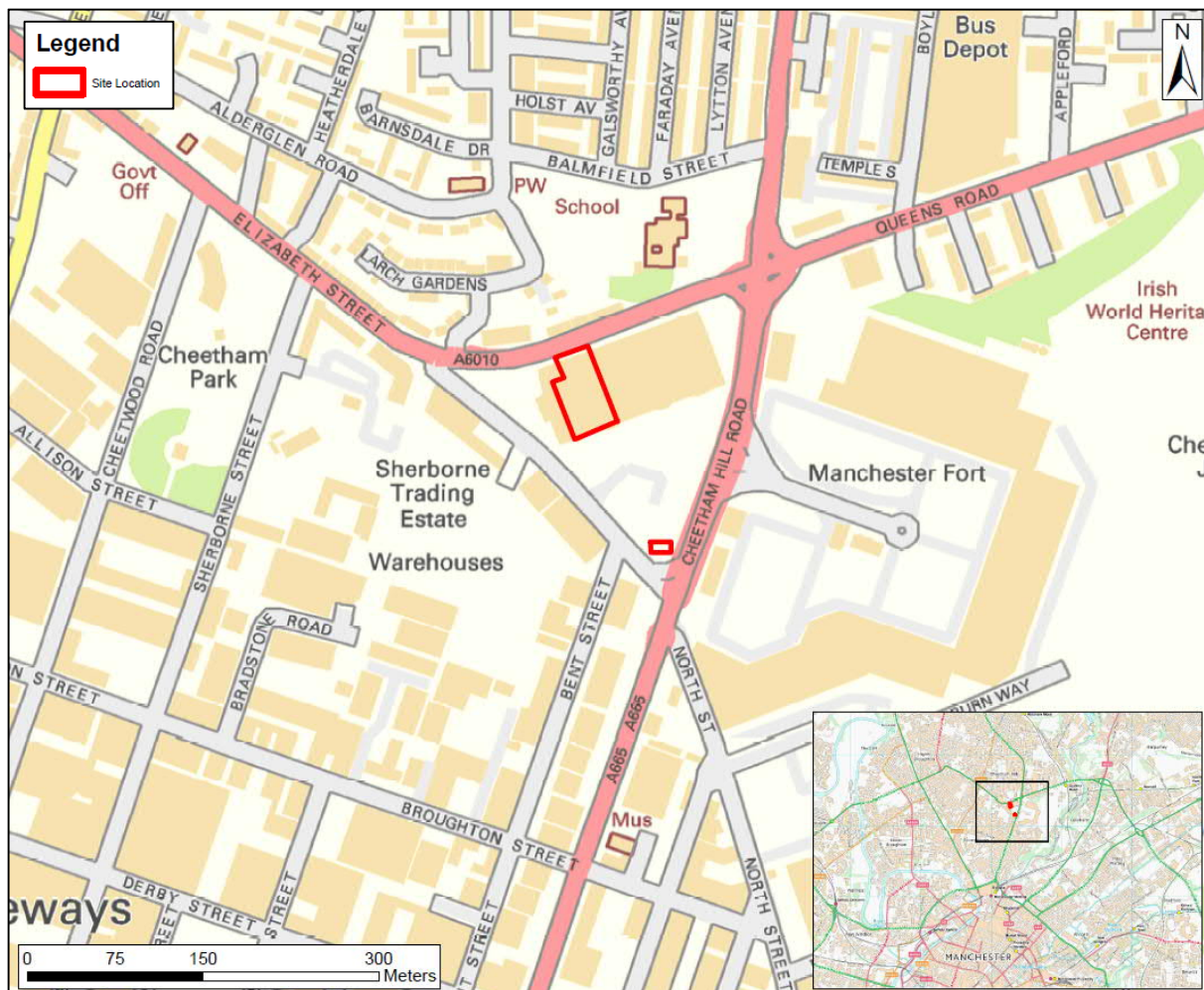
The Cheetham Hill Retail Park is well connected with good pedestrian, cycle and public transport options within the vicinity of the site. The development site takes vehicular access from Elizabeth Street, which connects with the Cheetham Hill Road and Queens Road junction.

The proposed development consists of proposals for an increase in the Gross Floor Area (GFA) from 96,645 sq ft (8,979 sqm) to 146,132 sq ft (13,577 sqm) increasing the four existing retail units to five units with two mezzanine floors.

This TA has been prepared in consultation with both Manchester City Council and Transport for Greater Manchester.

The site location is shown below in Figure 1, and is contained within **Appendix A**.

Figure 1: Site Location Plan



1.2 Report Purpose

Following this chapter, the TA includes the following sections:

- Section 2 outlines relevant national and local policy documents;
- Section 3 summarises existing conditions at the proposed development site;
- Section 4 details the accessibility of the development site, identifying sustainable transport modes;
- Section 5 describes the development proposals including access and car parking;
- Section 6 presents the trip generation of the proposed site;
- Section 7 summarises the operation of key junctions; and
- Section 8 provides a summary and conclusion.

The following appendices are found at the end of the report:

- Appendix A: Figures & Drawings
- Appendix B: Car Park Accumulation Study
- Appendix C: Trip Generation Technical Note
- Appendix D: TRICS Data
- Appendix E: Traffic Flow Diagrams
- Appendix F: Modelling Outputs

2. Policy Review

2.1 Introduction

This section of the Transport Assessment sets out the policy context within which the proposal has been developed. National transport and planning policy seeks to support the promotion of accessibility by all travel modes, particularly those sustainable modes. The following documents have been reviewed:

- The Transport White Paper (2011);
- National Planning Policy Framework (2012);
- Manchester Core Strategy 2012 – 2017; and
- Greater Manchester Third Local Transport Plan 2011/12 – 2015/16.

2.2 National Policy

2.2.1 The Transport White Paper (2011)

The January 2011 Transport White Paper: “Creating Growth, Cutting Carbon – Making Sustainable Local Transport Happen” sets out the Government’s vision for a sustainable local transport system. The White Paper acknowledges that transport provision is essential for economic growth, if the Government is to improve the economic deficit which it is currently facing. The Paper also recognises however, that the current level of carbon emissions from transport cannot be sustained if the nation is to meet its national commitments on climate change mitigation as well as creating a safer and cleaner environment in which to live. With this in mind, the Government highlights sustainable transport solutions as a means by which the economy can grow, whilst also bringing about a positive impact on the environment.

Within the Paper, sustainable transport considers more than just public transport, walking and cycling schemes and acknowledges that it is not feasible for some trips to be undertaken by these modes. There is therefore a realisation that the car will continue to be an important mode of transport and a focus should be given to making car travel greener through electric and other low emission vehicles.

The proposed development is considered to accord with the aspirations of the White Paper as it is supported by a range of sustainable transport links, including public transport, public footpaths and cycle routes. The implementation of a Travel Plan will also encourage users of the site to travel sustainably.

2.2.2 National Planning Policy Framework (2012)

The National Planning Policy Framework (NPPF) which superseded the Planning Policy Guidance Notes in 2012 sets out Government national policy and principles relating to specific aspects of the town planning framework. In replacing the previous guidance notes and remaining a material consideration in planning applications, the NPPF provides a framework for local communities and Authorities to develop relevant local development plans and strategies.

The NPPF has two key themes:

- Providing a greater level of integration and simplification of the planning policies governing new development nationally; and
- Contributing to the achievement of sustainable development from an economic, social and environmental perspective.

Chapter 4 ‘Promoting Sustainable Transport’, states that all developments which generate significant amounts of movement should be supported by either a Transport Statement or Transport Assessment. 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 public transport infrastructure;
- Safe and suitable access to the site can be achieved for all people; and

- Improvements can be undertaken within the transport network that cost effectively limits the significant impacts of the development.

Paragraph 32 of the NPPF importantly states that developments should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe. This Transport Assessment demonstrates that the impact of the development proposals, in terms of transport, is not severe, and therefore, there are no reasons not to approve the development from a transport point of view.

2.3 Local Policy

2.3.1 Manchester Core Strategy 2012 – 2027

The Manchester Core Strategy was published in July 2012 and covers the 15 year period between 2012 and 2027.

The document sets out the vision for Manchester in 2027 and a number of spatial objectives including S05: Transport which aims to “improve the physical connectivity of the City, through sustainable and accessible transport networks, to enhance its functioning and competitiveness and provide access to jobs, education, services, retail, leisure and recreation.”

Policy T1 refers to the delivery of a sustainable, high quality, integrated transport system, which encourages a shift away from car travel to public transport, cycling and walking. This will be achieved by:

- Improving the choice by developing alternatives to the car;
- Promoting regeneration and economic vitality by relieving traffic congestion and improving access to jobs and services;
- Improving pedestrian routes and the pedestrian environment;
- Developing Manchester’s cycle network;
- Contributing to improvements and reliability of the public transport network;
- Facilitate modes of transport that reduce carbon emissions; and
- Reducing the negative impacts of road traffic, including congestion, air pollution and road accident casualties.

Policy EC4 acknowledges that the Cheetham Hill area has significant existing employment and economic development, and is identified as a key development opportunity.

Policy CC5 states that ‘the Council will seek to ensure that development includes adequate parking provision for cars and bicycles’.

2.3.2 Greater Manchester Local Transport Plan 3: 2011/12 – 2015/16

The third Greater Manchester Local Transport Plan (LTP3) was published in April 2011 and outlines the long term goals for the next 15 years in Greater Manchester. The core objectives for LTP3 are:

- To ensure that the transport network supports the Greater Manchester economy to improve the life chances of residents and the success of business;
- To ensure that carbon emissions from transport are reduced in line with UK Government targets in order to minimise the impact of climate change;
- To ensure that the transport system facilitates active, healthy lifestyles and a reduction in the number of casualties and that other adverse health impacts are minimised;
- To ensure that the design and maintenance of the transport network and provision of services supports sustainable neighbourhoods and public spaces and provides equality of transport opportunities; and
- To maximise value for money in the provision and maintenance of transport infrastructure and services.

The document then goes on to set out how these objectives will be delivered in the short, medium and long-term. Central to the LTP3 is the encouragement and promotion of sustainable modes of travel (walking, cycling and public transport), rather than travel by private car.

2.4 Summary

As can be noted from the sections above, the proposed development site accords with both National and Local planning policy guidance.

3. Baseline Conditions

3.1 Introduction

This section of the TA provides details of the site location and provides a summary of the existing highway conditions in the vicinity of the site.

3.2 Site Location

The proposed development is located approximately 1.1km north of Manchester city centre, within Cheetham Hill Retail Park. The site is accessed from Elizabeth Street which bounds the site in the southwest. It is also bounded to the east by A665 Cheetham Hill Road and north by Queens Road. Where Cheetham Hill Retail Park lies to the west of Cheetham Hill Road, Manchester Fort Shopping Park lies to the east. The surrounding land uses within the vicinity of Cheetham Hill Retail Park are predominantly retail, leisure and residential.

The site currently provides two vehicular access points, one for customers and one for service vehicles. The customers access the Retail Park via Elizabeth Street southwest of the site, while service vehicles access the site from a different point on Elizabeth Street, 50m from its intersection with Queens Road.

Pedestrian and cycle access points are located at the vehicular access on Elizabeth Street as well to the east of the site from Cheetham Hill Road.

The nearest train station to the site (1.1km) is Manchester Victoria Railway Station which is located in the north part of the city centre. Most trains calling at Victoria Railway Station are operated by Northern Rail, except for TransPennine Express services from Liverpool to Newcastle via Manchester. It provides direct connections to destinations in Northern England, such as Rochdale, Bradford, Leeds, Newcastle, Huddersfield, Wigan, Southport, Blackpool and Liverpool.

3.2.1 Elizabeth Street

Elizabeth Street is two-way single carriageway running in a southeast-northwest direction. It extends from its intersection with Queens Road to its intersection with Cheetham Hill Road. It constitutes the main access point for the Cheetham Hill Retail Park for both customers and service vehicles. The road has parking restrictions in the form of double yellow lines along the southeast-bound carriageway. There are also pedestrian paths on both sides of the carriageway and sufficient lighting.

3.2.2 Cheetham Hill Road (A665)

Cheetham Hill Road (A665) is a two-way dual-carriageway road running in a north-south direction, providing a direct route to Manchester city centre. Running south from the Cheetham Hill Road/Queens Road junction, Cheetham Hill Road is a dual-carriageway, whilst north of the Queens Road junction it is a single carriageway. The length of Cheetham Hill Road runs from Corporation Street in Manchester city centre towards Prestwich northwest of the proposed site. There is a 30mph speed limit imposed along the length of Cheetham Hill Road (A665), as well as pedestrian walkways, on-site parking bays, periodic bus and cycle lanes and bus stops.

3.2.3 Queens Road

Queens Road borders the site on the northern boundary. It is a single, two-way carriageway with a 30mph speed limit. There are wide footpaths (approx. 3m wide) on both sides of the carriageway, and also has street lighting along its entirety. Queens Road forms a 2.3km section of the wider A6010 which acts as a secondary ring road around north, east and south Manchester, the length of which runs from Cheetwood (north) to Chorlton-cum-Hardy (south) and provides access to the A62 Oldham Road, A57 Hyde Road, and A6 Stockport Road.

3.3 Existing Access

Existing road access for customers and service vehicles to the retail park site is taken via Elizabeth Street. These access points are shown in [Figure 2](#) and [Figure 3](#) respectively.

Figure 2: Existing Site Access for Customers (Elizabeth Street)

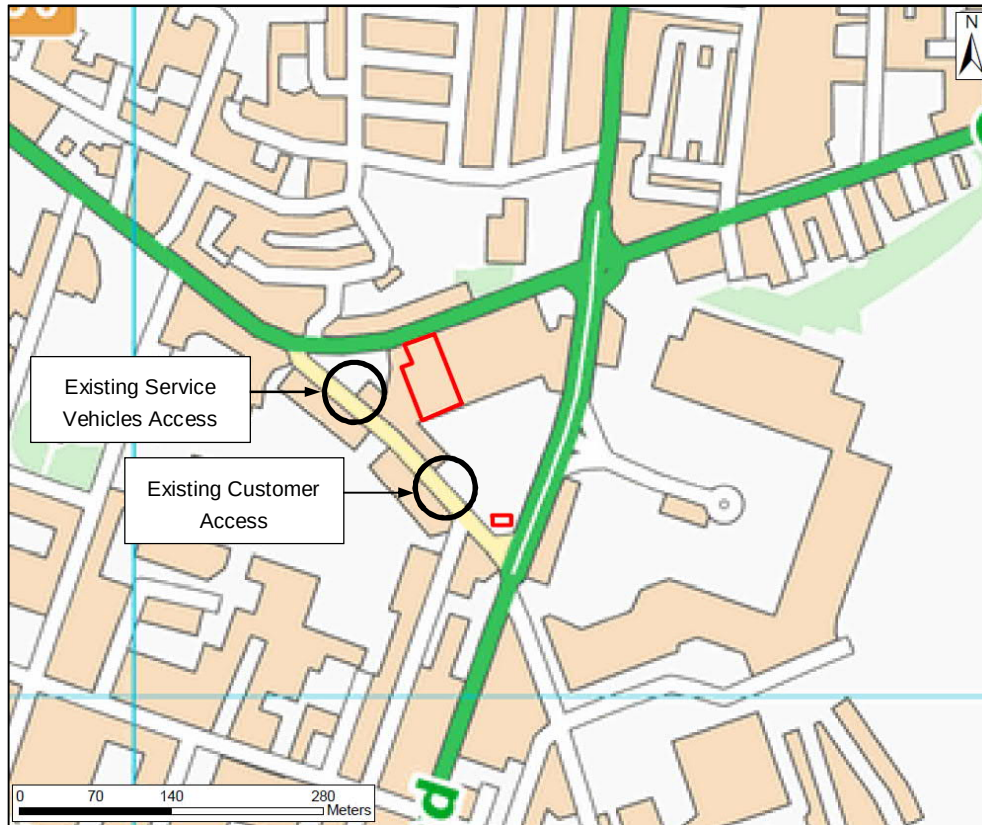


Figure 3: Existing Site Access for Service Vehicles (Elizabeth Street)



The location of the existing site access location is illustrated in [Figure 4](#).

Figure 4: Existing Site Access Locations (Elizabeth Street)



3.4 Road Safety

Road accident data has been obtained for the area of the Cheetham Hill Road, Queens Road and Elizabeth Street in the vicinity of the site and has been assessed for the most recent five years available (2012 – 2016 inclusive). Accident locations are shown on [Figure 5](#) below along with a breakdown of each accident provided within [Table 1](#).

Figure 5: Incident Report Locations

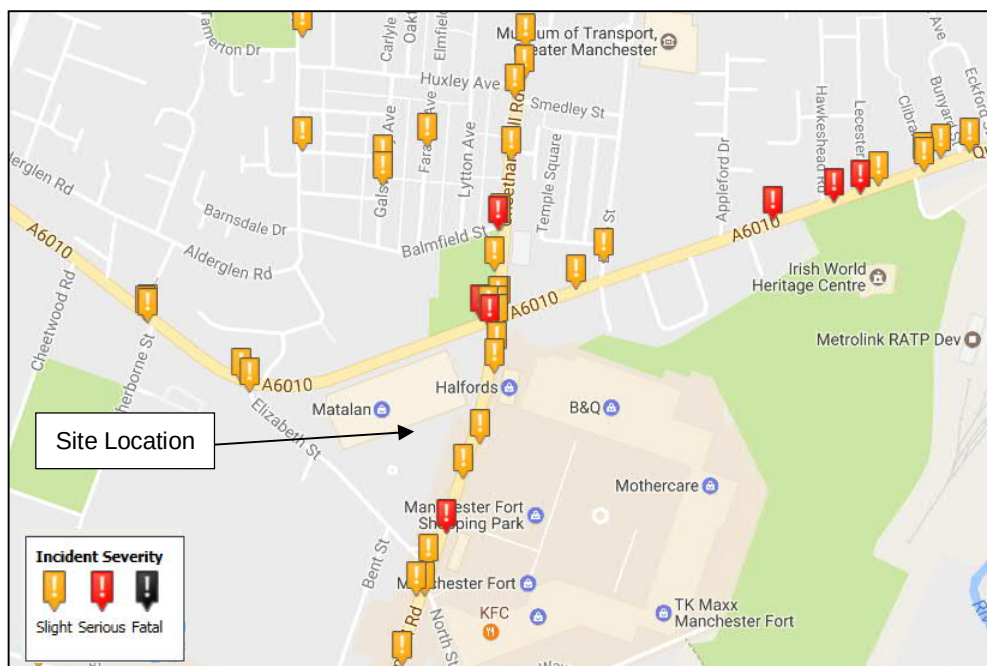


Table 1: Road Accident Report 2012-2016

Location	Date	Severity	Vehicles Involved	Casualties
Cheetham Hill Road / Queens Road Junction	24/02/2012	Slight	2	1
	02/01/2013	Slight	2	1
	08/08/2013	Slight	2	1
	21/12/2013	Slight	2	1
	31/08/2015	Slight	2	1
	09/11/2015	Serious	1	1
	12/12/2015	Serious	2	3
Cheetham Hill Road	02/01/2012	Slight	1	1
	14/12/2012	Slight	2	1
	07/08/2013	Slight	1	1
	01/04/2014	Slight	2	1
	08/04/2014	Slight	2	3
	28/04/2014	Slight	1	1
	01/10/2014	Slight	3	1
	17/11/2014	Slight	2	1
	07/12/2014	Slight	2	1
	30/05/2015	Slight	2	5
	11/08/2016	Serious	1	1
Cheetham Hill Road / Elizabeth Street Junction	12/02/2014	Serious	1	1
	23/02/2015	Slight	2	1
Elizabeth Street	19/12/2012	Slight	1	1
	28/12/2012	Slight	2	1
	26/01/2013	Slight	3	1
Queens Road	27/06/2012	Slight	2	1
	31/07/2012	Slight	2	1
	13/09/2012	Slight	2	2
	12/12/2012	Slight	2	1
	04/01/2013	Slight	2	2
	29/03/2013	Serious	2	1
	16/08/2013	Slight	3	2
	10/04/2015	Slight	2	1
	15/06/2015	Serious	2	1
	26/06/2015	Slight	2	1
	14/10/2015	Serious	2	1

Table 1 above shows that a total of 34 accidents were recorded within the study area. 27 of the accidents recorded were classified as slight and the remaining 7 recorded as serious. It is noted that a number of accidents took place at the Cheetham Hill Road / Queens Road Junction, however due to the nature of this location is not considered uncommon and it is considered that the proposed development would not have a disproportionate impact on highway safety.

4. Accessibility

4.1 Introduction

This chapter of the TA considers the existing provision for sustainable travel to and from the proposed site. The site is well served by a range of sustainable transport links.

4.2 Access for Pedestrians

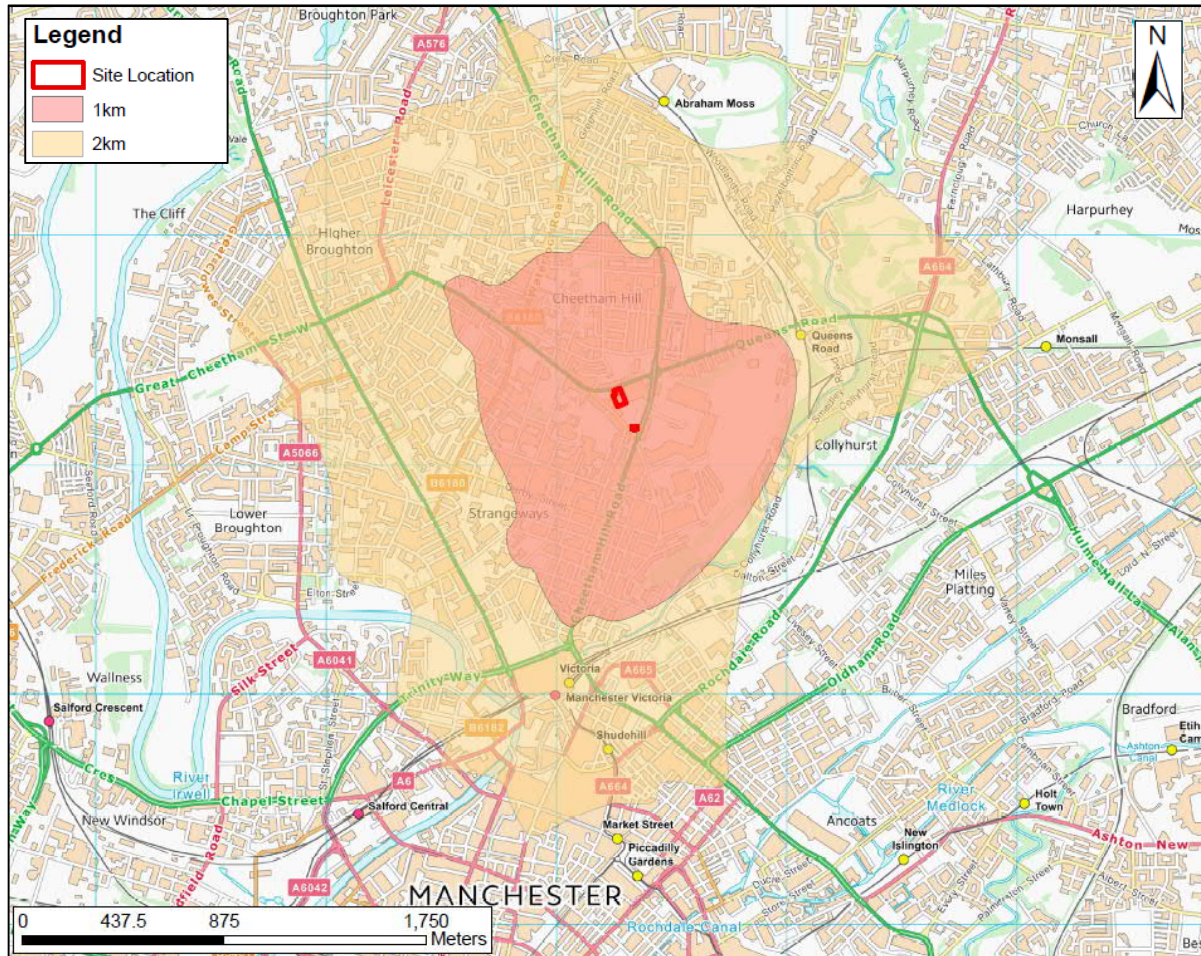
Walking is the most sustainable form of travel due to the positive environmental effects including zero harmful emissions. It also provides distinct health benefits and is the lowest cost form of travel. [Figure 6](#) illustrates the indicative 1km and 2km walking isochrones centred on the site access location, with 2km considered to be the 'preferred maximum walking distance' for commuting as specified in the Chartered Institution of Highways and Transportation (CIHT) 'Providing for Journeys on Foot' as shown in [Table 2](#) below.

Table 2: Suggested Acceptable Walking Distance

	Town centres (m)	Commuting / School Sight-seeing (m)	Elsewhere (m)
Desirable	200	500	400
Acceptable	400	1,000	800
Preferred maximum	800	2,000	1,200

Pedestrian links in the vicinity of the proposed development site are well established with both Elizabeth Street and Cheetham Hill Road, by which the site is located, providing continuous footways on the eastern and western sides of the carriageway. On both roads the footways and pedestrian crossings are considered sufficient to provide direct and safe access. Street lighting is also provided along the length of both roads with dropped kerbs and tactile paving provided throughout. Signalised puffin crossings are located on Cheetham Hill Road at its intersections with Elizabeth Street, Queens Road and Manchester Fort Shopping Park entrance.

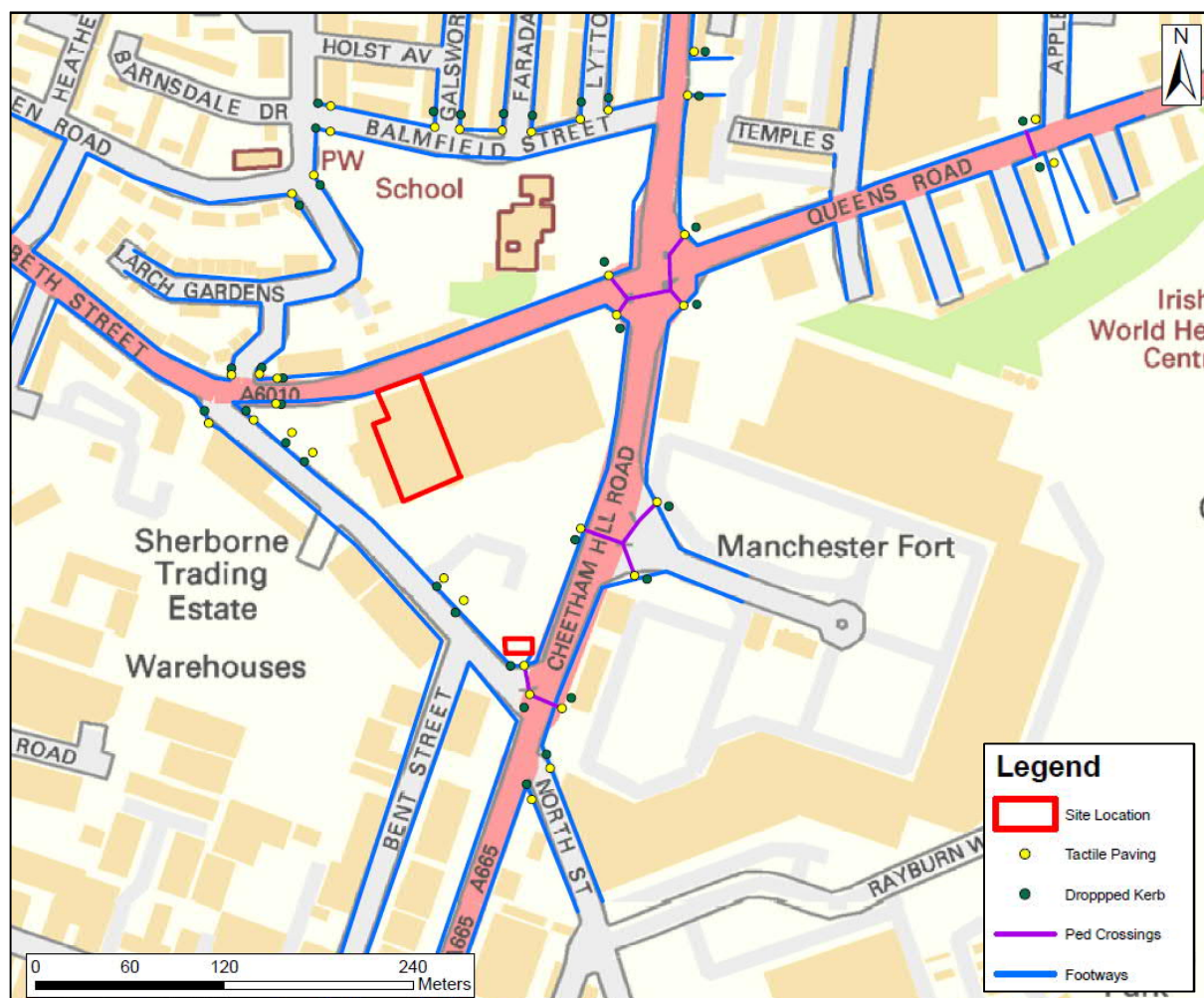
Figure 6: Indicative 1km and 2km Walking Isochrone



As shown in Figure 6, residential areas, including the northern section of Manchester city centre, are easily accessible by walking from the proposed development site location. There are a number of residential areas located within 2km of the proposed site, and an abundance of other retail units located west, south and east. The proposed development location is therefore highly permeable for pedestrians.

A review of the existing pedestrian facilities mainly along Cheetham Road has been conducted in order to gauge the degree of permeability from the surrounding area to the proposed development site. Figure 7 depicts the key pedestrian facilities in the surrounds to the proposed development site including footways, dropped kerbs, tactile paving and crossing locations.

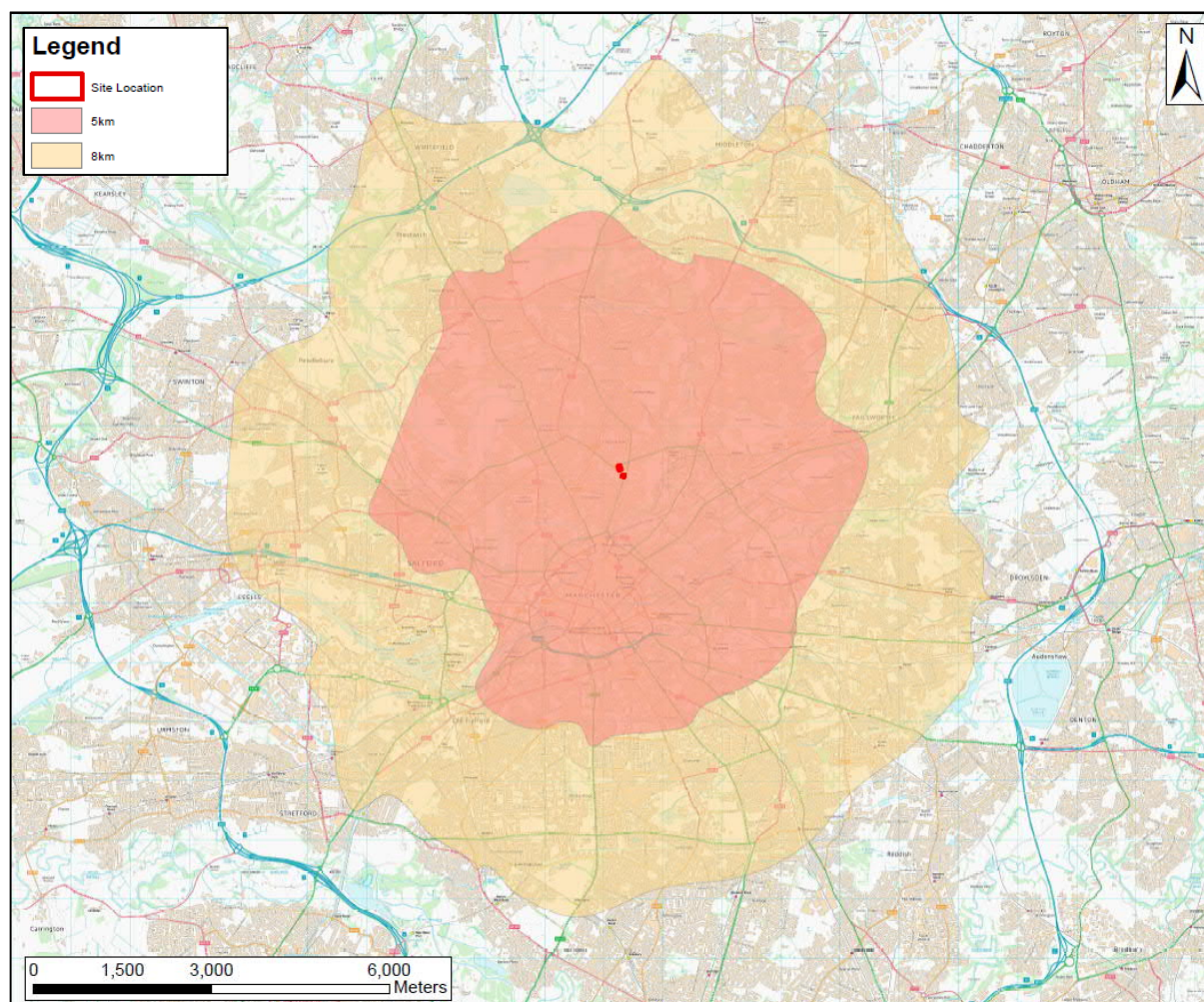
Figure 7: Existing Pedestrian Infrastructure



4.3 Access for Cyclists

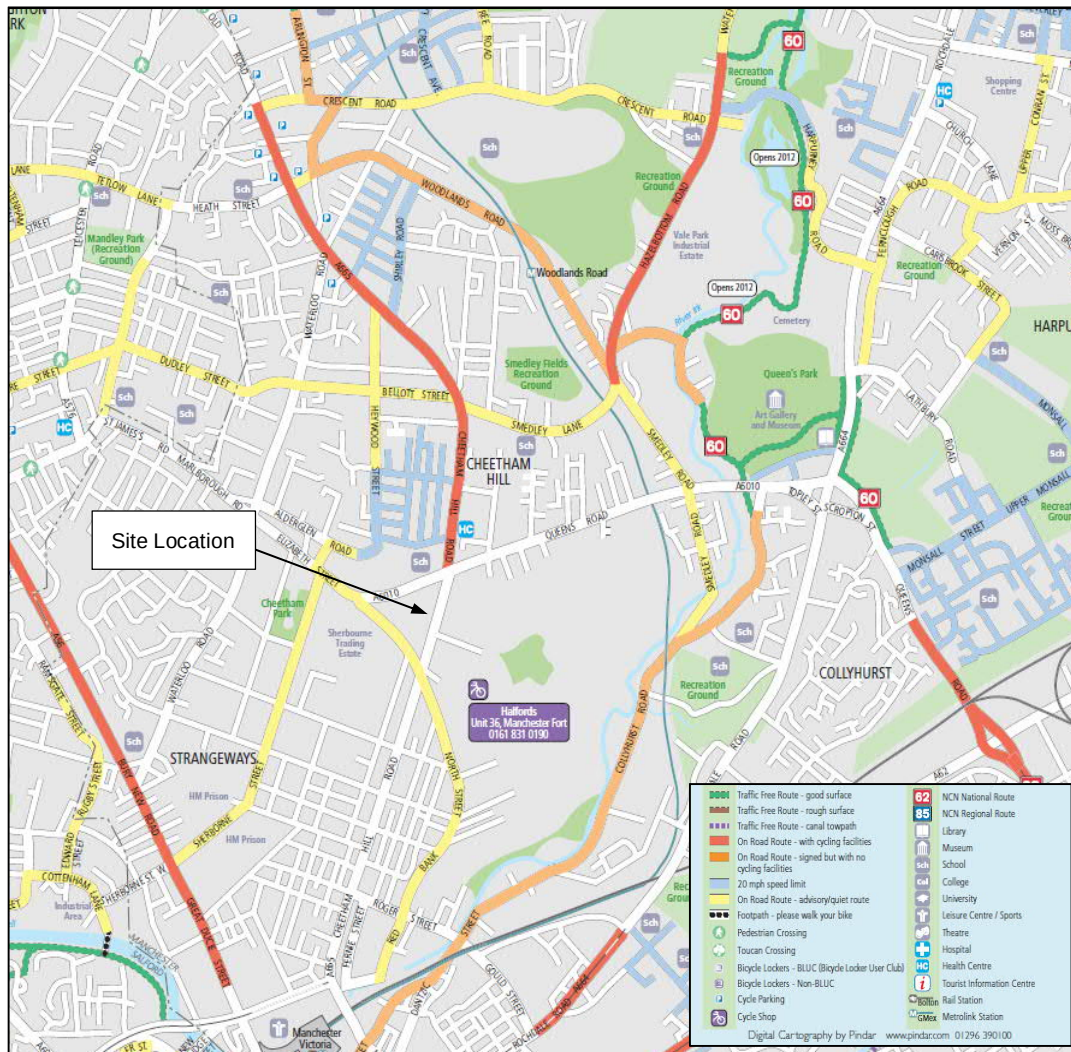
Cycling is widely recognised as a sustainable alternative to car journeys. Local Transport Note 2/08: Cycling Infrastructure Design, published by DfT, states that many cycle trips are around 5km, but for commuter journeys a distance of approximately 8km is not uncommon. A cycling isochrone map with a distance of 5km and 8km is shown in [Figure 8](#), and can also be found in **Appendix A**.

Figure 8: Indicative 5km and 8km Cycling Isochrone



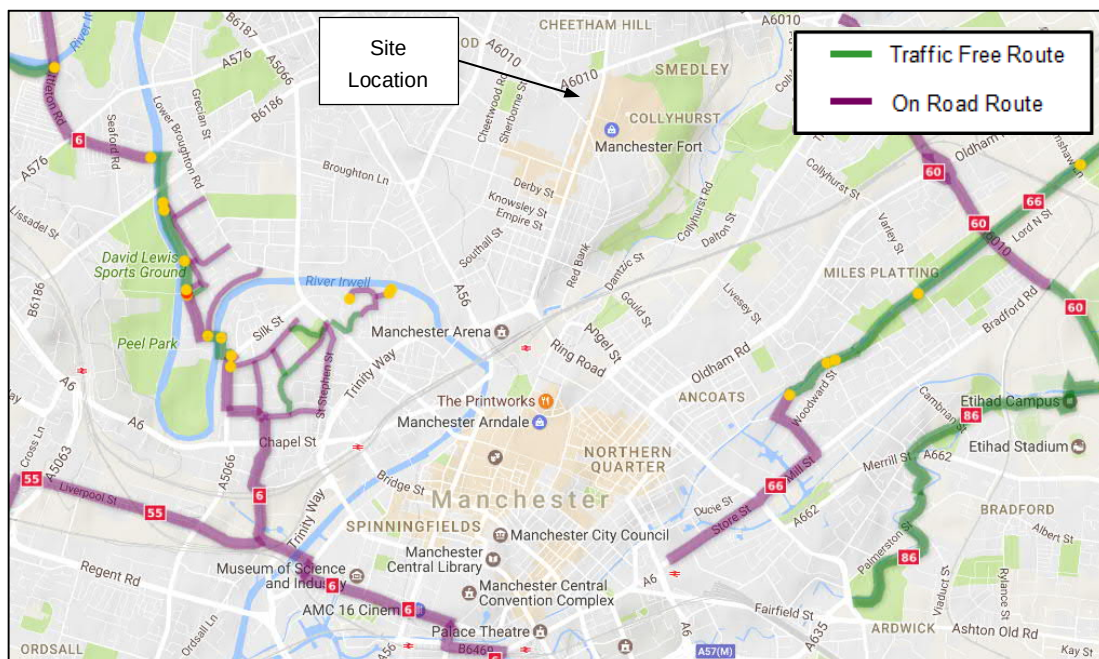
A distance of 5km cycling distance encompasses much of Manchester city centre, whilst the 8km reaches many of the surrounding residential areas including Swinton, Pendlebury, Whitefield, Middleton, Prestwich, Old Trafford and Droylsden. Cycle facilities are provided along Cheetham Hill Road in the form of a dedicated cycle lane, as shown in [Figure 9](#), which provides a safe and efficient route north from the site.

Figure 9: Cycle Facilities in Manchester



Cycle routes within the vicinity of the site are as shown in Figure 10, where routes shown have been obtained from Sustrans website online (link: <http://www.sustrans.org.uk/ncn/map>).

Figure 10: SusTrans Cycle Map



National Cycle Network (NCN) Route 6 is located approximately 2.3km to the west of the site and can be accessed via Blackfriars Road and Lower Broughton Road in the wider context. It connects to Windermere in the north and Watford in the south, however within the vicinity of the site it connects to Prestwich to the north and Withington to the south both within an 8km cycling distance.

National Cycle Network (NCN) Route 60 is located approximately 1.3km to the east of the proposed development site and runs between North and East Manchester, with its most southerly segment forming part of the Fallowfield Loopline. It is open and signed between the northernmost edge of Houldsworth Golf Course in Reddish - from where it branches off from National Route 6 - and Harpurhey. Close to the development site it can be accessed via Queens Road / Rockdale Road junction.

National Cycle Route 66 is located approximately 2.5km to the southeast of the site and runs from central Manchester to East Yorkshire. It starts close to Manchester Piccadilly Station and runs traffic-free along the Rochdale Canal to just past Failsworth. A cycleable route continues along the canal past this point but it isn't signed as Route 66.

As can be observed from the Figures above, the site location provides a good level of access and permeability to the surrounding residential areas and Manchester city centre for journeys made by cycles.

In addition to the cycle network shown, the road speeds, carriageway widths and proximity of the site to the surrounding residential areas act to encourage cycling as a feasible alternative to making journeys by car.

4.4 Public Transport Accessibility

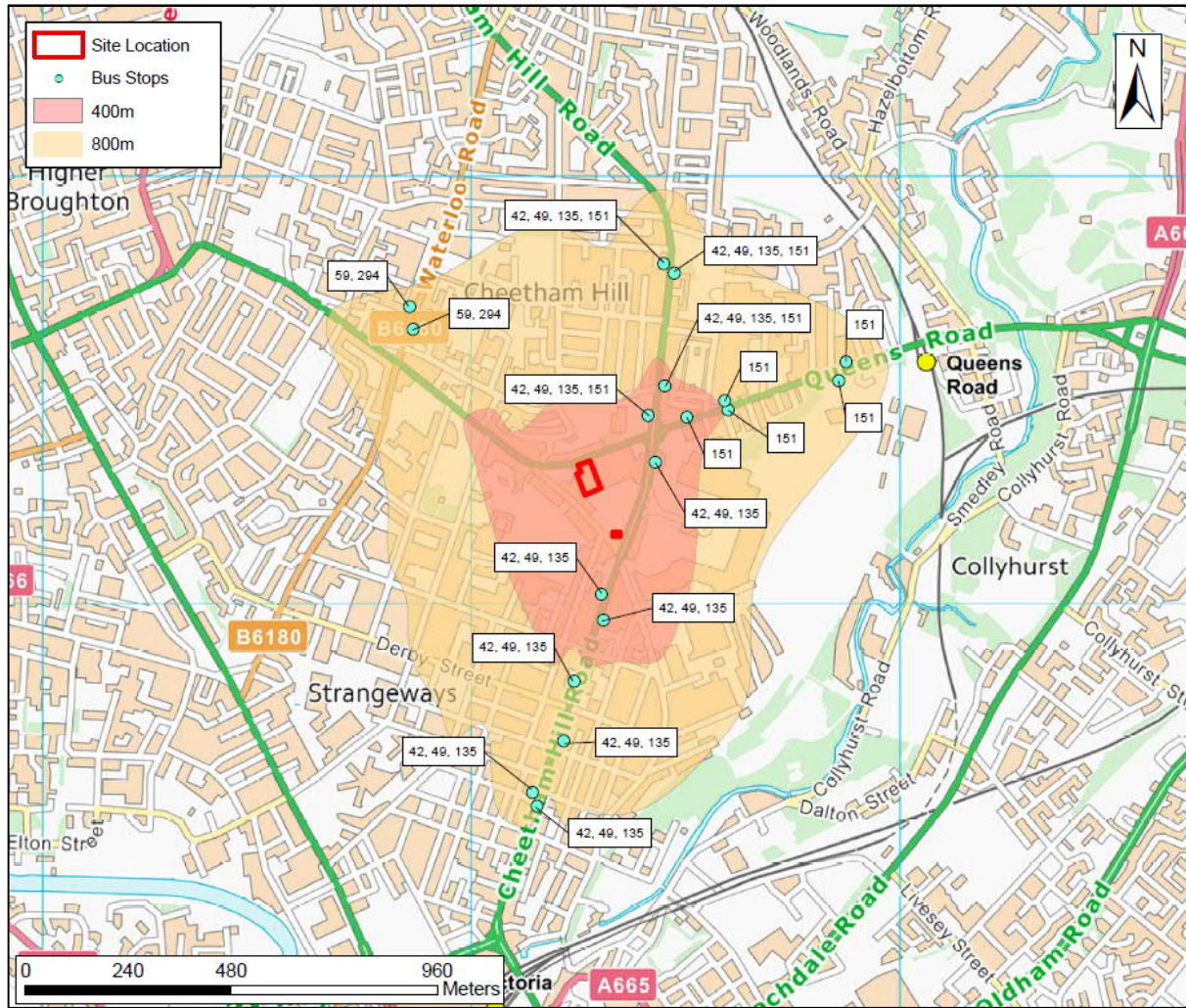
4.4.1 Buses

The CIHT guidance states that 400m is the maximum desirable distance to walk in order to access bus facilities, which is equivalent to a five-minute walk based on approximately 1.4m/s walking speed. This distance is generally considered as being a reasonable walking distance to bus stops from a site.

The site is situated within a main retail destination of the city, and benefits from being in close proximity to several bus stops. [Figure 11](#) below demonstrates that the development is located within the acceptable 400m and maximum 800m walking distance of a bus stop.

The bus stops located within 400m and 800m walking distances are served by frequent bus services providing connectivity to the surrounding residential and retail areas. This ensures that public transport is a viable mode of travel for potential customers and employees travelling to the unit.

Figure 11: Accessible Bus Stops and Services within 400m and 800m Walking Distance



There are 18 bus stops within a distance of 800m from the site. Based on the high number of services within a close proximity of the site, it is considered that the proposals would be well served by public transport, offering a realistic alternative to personal vehicle use.

Table 3 below provides details of the bus services stopping at the nearby bus stops, which are numerous, and provide excellent services to the surrounding areas.

Table 3: Accessible Bus Services

Service Number	Route	Mon-Fri		Sat		Sun	
		Day	Eve	Day	Eve	Day	Eve
42	Middleton - Manchester City Centre	20mins	20mins	20mins	20mins	20mins	20mins
49	Oldham - Manchester City Centre	30mins	1hour	30mins	1hour	1hour	1hour
59	Rushcroft - Piccadilly Gardens	30mins	30mins	30mins	30mins	30mins	30mins
135	Bury - Piccadilly Gardens	8mins	20mins	8mins	20mins	8mins	20mins
151	Hightown - Hollinwood	Hourly	-	Hourly	-	-	-
294	Langley - Trafford Centre	2 per day	-	-	-	-	-

Note: Daytime services between 5am and 6pm, evening services after 6pm

4.4.2 Trains

Manchester Victoria Railway Station is located on Hunts Bank in central Manchester, less than 1.1km south from the site, and therefore is within the preferred maximum walking distance as noted in [Table 2](#). Most trains calling at Victoria Railway Station are operated by Northern Rail, except for TransPennine Express services from Liverpool to Newcastle via Manchester. It provides direct connections to destinations in Northern England, such as Rochdale, Bradford, Leeds, Newcastle, Huddersfield, Wigan, Southport, Blackpool and Liverpool.

Table 4: Manchester Vitoria Railway Station Direct Services (and approximate daytime frequency)

Destination	Mon - Fri	Sat	Sun
Rochdale	3 per hour	3 per hour	2 per hour
Bradford	2 per hour	2 per hour	1 per hour
Leeds	3 per hour	3 per hour	2 per hour
Newcastle	1 per hour	1 per hour	1 per hour
Huddersfield	3 per hour	3 per hour	2 per hour
Wigan	4 per hour	4 per hour	1 per hour
Southport	1 per hour	1 per hour	-
Blackpool	1 per hour	1 per hour	1 per hour
Liverpool	2 per hour	2 per hour	-

Note: Monday – Saturday services typically operate between 05:30 and 23:30, Sunday services typically between 07:30 and 22:30

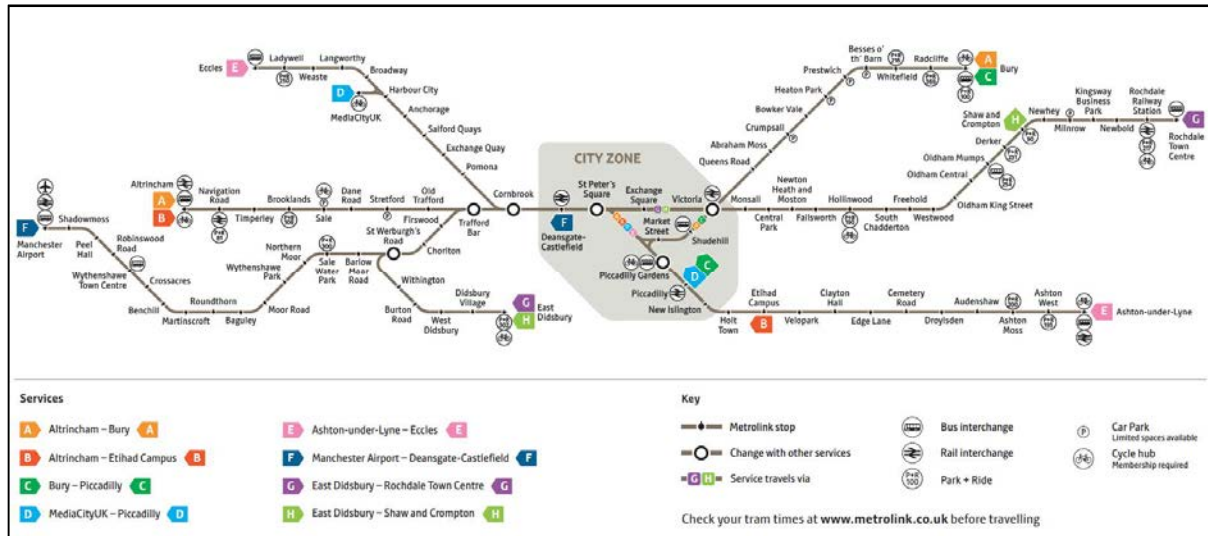
In addition to these, there are many indirect services, which are also available regularly to destinations further afield. The station does not have a car park, but does have 38 bicycle stands on the platforms with CCTV, a ticket office typically open between 06:30-22:00 and refreshment facilities.

Given the proximity of Manchester Victoria Railway Station to the site, journeys by rail could feasibly facilitate part of multi-modal journeys to / from the proposed site providing access to various destinations.

4.4.3 Metrolink

Public transport facilities within Greater Manchester are enhanced by the accessibility of the Metrolink network. The Metrolink network is formed of eight lines (A-H). These lines provide connectivity to and from Manchester city centre, and the surrounding areas. The extent of the Metrolink network is shown in [Figure 12](#) below. The closest stop to the Retail Park is Queens Road, approximately 1.2km east of the site. The Metrolink is therefore easily accessible from the site by foot or cycle, connecting services will also allow employees to commute to the proposed development site from various residential areas throughout Greater Manchester.

Figure 12: Metrolink Network Map



The frequency of services provided by the Metrolink network is summarised in [Table 5](#).

Table 5: Queens Road Metrolink Services

Service	Route	Mon-Fri	Sat	Sun
A	Altrincham / Bury	Every 12 mins	Every 12 mins	Every 12 mins
C	Bury / Piccadilly	Every 12 mins	Every 12 mins	Every 12 mins

Note: Services typically between 6am and midnight

4.5 Summary

This section of the report has shown that the proposed development site is situated in a prime location for access by sustainable modes.

The site is located in the retail park area of Cheetham Hill, where the surrounds are conducive to creating a safe and pedestrian-friendly environment. The majority of visitors to the site are considered to be shoppers. The proposed site is positioned within a short walking distance to other retail units in Manchester Fort Shopping Park and the large wholesale area southwest of the proposed site, and it is therefore expected that site permeability for journeys on foot and cycle will be excellent.

There are a number of bus services which bypass the site location on a frequent basis, and the site is also well served in terms of frequent bus services aligned with both rail and Metrolink stations 1.1km and 1.2km, respectively, from the site.

5. Development Proposals

5.1 Introduction

This chapter provides details of the proposed development including access and parking arrangements.

5.2 Proposed Development

The site is located north of Manchester city centre, within Cheetham Hill Retail Park which currently contains 4 retail units. It is bounded to the north by Queens Road and a predominantly residential area, to the east by Cheetham Hill Road and the Manchester Fort Shopping Park, and to the southwest by Elizabeth Street and many wholesale retailers.

The proposals consist of an increase in the GFA from 96,645 sq ft (8,979 sqm) to 146,132 sq ft (13,577 sqm) increasing the four existing retail units to five units with two mezzanine floors.

It is proposed that the five retail units will include a food retail unit of 1,922 sqm and additional non-food retail units of 11,665 sqm as detailed below;

- Unit 1 with mezzanine – Non Food Retail (GFA 3,948 sqm);
- Unit 2 – Lidl Food Store (GFA 1,922 sqm);
- Unit 3 with mezzanine – Non Food Retail (GFA 3,146 sqm);
- Unit 4 – Non Food Retail (GFA 2,019 sqm); and
- Unit 5 – Non Food Retail (GFA 2,542 sqm).

5.3 Proposed Car Parking

Cheetham Hill car parking standards are outlined within the 'Manchester City Council – Core Strategy Development Plan Document' adopted in July 2012. Policy CC5 states that the council will seek ensure that developments include adequate parking provision for cars and bicycles. In this instance, this should be based on the parking standards described below for land use A1:

Table 6: Manchester City Council Parking Guidelines

Land Use	Maximum number of car parking spaces		Minimum Number of spaces required for:		
	District Centres	Areas not within the City Centre or District centres	Disabled peoples parking as percentage of total (Citywide)		Cycles (Citywide)
			Up to 200 in total	Over 200 in total	
A1 Non-food Retail	1 space per 22 sqm	1 space per 20 sqm	3 bays or 6% of total capacity whichever is greater	4 bays plus 4% of total capacity	1 space per 200 sqm minimum of 2 spaces
A1 Food Retail	1 space per 16 sqm of gross floor area	1 space per 14 sqm of gross floor area	3 bays or 6% of total capacity whichever is greater	4 bays plus 4% of total capacity	1 space per 140 sqm minimum 2 spaces

Based on the above parking standards, [Table 7](#) shows the applied car parking standards for the proposed development.

Table 7: Retail Use Parking

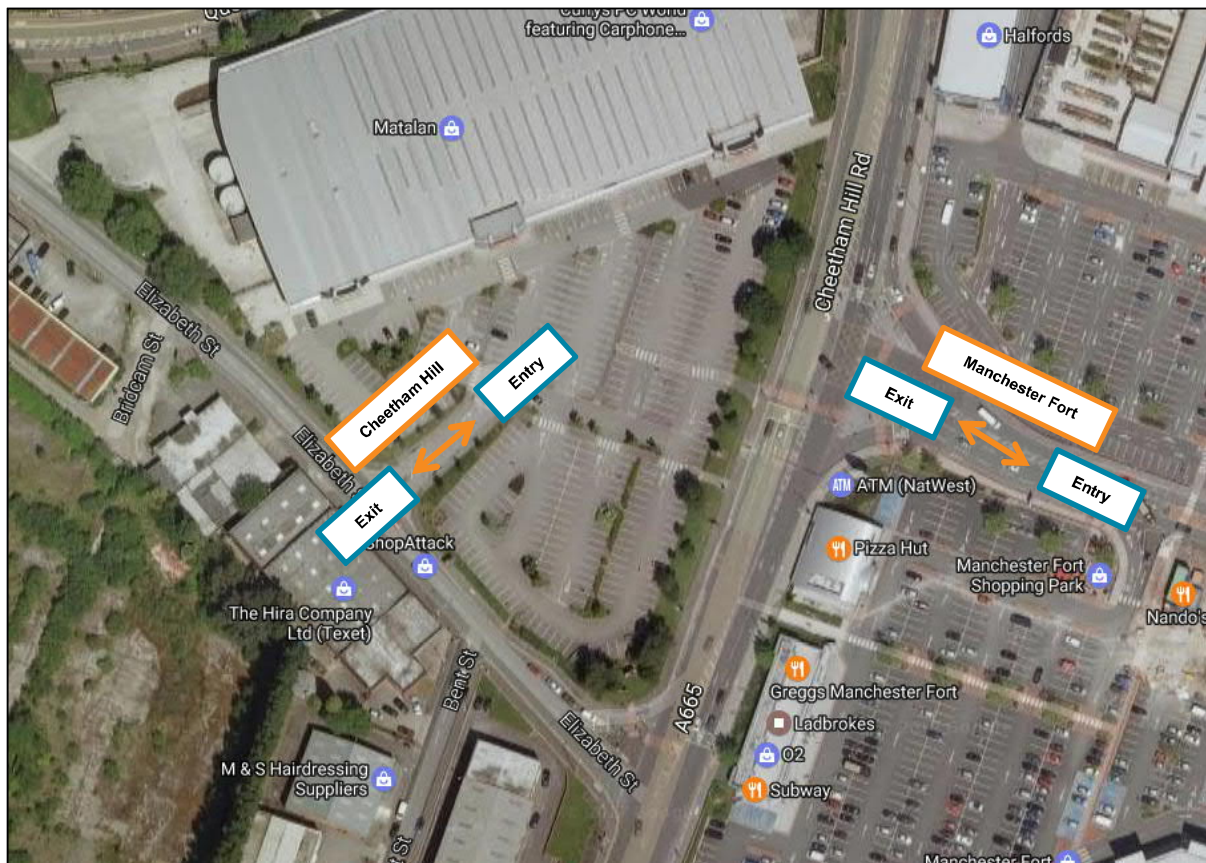
Land Use	GFA (sqm)	Car Parking (max)	Disabled Parking (min)	Cycle Parking (min)
A1 Non-food Retail	11,665	530	25	58
A1 Food Retail	1,922	120	7	14
TOTAL		650	32	72

Whilst the parking guidelines are recognised as being such, and are considered to be the maximum required the maximum number of car parking spaces provided for the proposed development would be 650 car parking spaces, with a minimum of 32 spaces for the mobility impaired, along with a minimum of 72 cycle bays.

The Cheetham Hill Retail Park currently has 343 parking spaces, 35 of which are for the mobility impaired. .

As the proposed number of parking spaces are lower than the recommended maximum number a Car Park Accumulation Study was undertaken between 08:00-20:00 on Thursday 4th May 2017 and between 09:00-19:00 on Saturday 6th May 2017 to determine the overall levels of parking usage in the retail area as a whole to demonstrate that the proposals can be accommodated in terms of sufficient car parking. A plan of the parking areas assessed is shown in [Figure 13](#). The full results of the Car Park Accumulation Study can be found in **Appendix B**.

Figure 13: Cheetham Hill Retail Park



The car park accumulation study found the Cheetham Hill Retail Park and Manchester Fort Shopping Park had the following utilisation:

Table 8: Car Park Utilisation

Car Park	Peak Utilisation	
	Thursday	Saturday
Cheetham Hill	44%	50%
Manchester Fort	55%	72%

The results show that the Cheetham Hill car park usage peaked at 12:00 on Thursday with an utilisation of 44%, equating to 151 occupied car parking spaces. On Saturday the car park usage peaked at 13:45 with an utilisation of 50%, equating to 172 occupied spaces.

The car park accumulation assessments show that the car parks are underutilised and have capacity for additional vehicles. In addition, the site lies within a larger retail area with Manchester Fort located adjacent to the site which provides 1181 car parking spaces. This is shown in the car parking accumulation study not to be fully occupied during Thursday and Saturday peaks.

5.4 Proposed Access

The site currently provides two vehicular access points, one for customers and one for service vehicles. The customers access the Shopping Park via Elizabeth Street south of the site, while service vehicles access the site from a different point on Elizabeth Street close to its intersection with Queens Road.

There are three pedestrian and cycle access points which are located to the east of the site from Cheetham Hill junction, with an additional access point only for pedestrian to the south from Elizabeth Street.

It is proposed that the access arrangements will remain as present.

6. Trip Generation and Distribution

6.1 Introduction

This chapter outlines the anticipated traffic generation of trips as a consequence of the proposed development. The methodology and resultant vehicle trip generation has been agreed with Highways officers at Manchester City Council.

6.2 Trip Generation

To estimate the number of trips associated with the proposed development, the TRICS database (v7.4.1 & 7.5.2) has been interrogated to derive weekday AM (08:00-09:00), PM (17:00-18:00) and Saturday (15:00-16:00) peak hour vehicle trip rates for sites of a similar size and nature to the development proposals. Sites have been selected based on TRICS land use category 'Retail Park – excluding Food' and 'Discount Food Store' for geographical areas excluding London. A technical note has been produced which provides further details as to the methodology used to derive the trips, found in **Appendix C**.

Using 96,645 sq ft (8,979 sqm) as the existing retail use, and 146,132 sq ft (13,577 sqm) for the proposed development the trip rates for the site have been determined. Full outputs from TRICS are contained within **Appendix D** of this TA whilst the vehicle trip rates and resultant trip generation are summarised in [Table 9](#) below.

Table 9: TRICS Person Trip Rates and Trip Generation

Land Use Category	Person Trips	AM Peak (08:00-09:00)		PM Peak (17.00-18.00)		Saturday (15:00-16:00)	
		Arrivals	Departures	Arrivals	Departures	Arrivals	Departures
Existing Retail Park – excl. Food (8,979 sqm)	Person Trip Rate (per 100m ²)	0.955	0.679	0.449	0.483	4.866	5.523
	Person Trip Generation	86	61	40	43	437	496
Proposed Retail Park – excl. Food (11,655 sqm)	Person Trip Rate (per 100m ²)	0.955	0.679	0.449	0.483	4.866	5.523
	People Trip Generation	111	79	52	56	567	644
Retail Park Difference		+25	+18	+12	+13	+130	+148
Discount Food Store (1,922 sqm)	Person Trip Rate (per 100m ²)	3.925	2.675	7.228	7.644	10.941	11.724
	Person Trip Generation	75	51	139	147	210	225
Total Proposed	Person Trip Generation	186	130	191	203	777	867

6.3 Modal Split

In order to determine the number of vehicles associated with the person trips shown in Table 9, the 2011 Census Method of Travel to Work data for the Manchester area has been obtained and applied to the person trip generation as shown below in [Table 10](#).

Table 10: Manchester 2011 Census Derived Mode Split

Mode	Percentage Mode Split
Car Driver	47%
Car Passenger	5%
Bus, Minibus or Coach	23%
Train	3%
Bicycle	4%
Motorcycle	0%
On Foot	15%
Other	3%
Total	100%

This mode split has been applied to the additional person trip generation set out in Table 8 to determine the number of additional vehicle trips associated with the proposals at Cheetham Hill. The vehicle trip generation is subsequently set out in Table 10 below.

Table 11: Vehicle Trip Generation

Total Vehicle Trips	AM Peak (08:00-09:00)		PM Peak (17:00-18:00)		Saturday (15:00-16:00)	
	Arrivals	Departures	Arrivals	Departures	Arrivals	Departures
<i>Existing Retail Park – excl. Food Additional People Trips</i>	25	18	12	13	130	148
Proposed Retail Park – excl. Food Additional Vehicle Trips	12	8	6	6	61	70
Proposed Discount Food Store Vehicle Trips	35	24	65	69	99	106
Total Proposed Additional Vehicle Trips	47	32	71	75	160	175

Therefore, it is shown that during the weekday AM peak hour, it is expected that there will be 79 two-way trips made to the proposed development, and 146 two-way trips during the weekday PM peak hour. During the Saturday peak hour, there may be 335 two-way trips made to the site.

6.4 New Development Trips

Research has indicated (based on the TRICS Research Report 95/2) that for a food retail unit the trips associated with that facility on the highway network are comprised as follows:

- New Trips 10%;
- Pass by Trips 20%;
- Diverted Trips 35%; and
- Transferred Trips 35%.

In addition, TRICS Research Report 14/1 considers that a large number of trips on the highway network associated with a retail development are already secondary trips and that proportion is in the order of 57-67% thus indicating that between 33-43% are primary (new) trips on the network attributable to a retail development. However, in terms of providing a wholly robust assessment and following discussion with Manchester City Council and Transport for Greater Manchester, we have considered that there would be 50% of trips which may be new to the highway network for both the Retail Park (excluding Food), and the Food Retail unit.

We therefore consider that the following trip generation would be appropriate to be considered at this stage:

Table 12: New Trips Vehicle Trip Generation

Land Use Category		AM Peak (08:00-09:00)		PM Peak (17.00-18.00)		Saturday (15:00-16:00)	
		Arrivals	Departures	Arrivals	Departures	Arrivals	Departures
Retail Park – excl. Food & Discount	Proposed Vehicle Trips	47	32	71	75	160	175
Food Store	New Trips (50%)	24	16	35	38	80	88

It can be seen that trips identified as potential additional trips on the highway network as a result of the development proposals equate to 40 additional two-way vehicles during the weekday AM peak hour and 73 additional two-way vehicles during the weekday PM peak hour. During the Saturday peak hour, it is considered that there would potentially be a maximum of 168 additional two-way vehicle trips on the network.

6.5 Trip Distribution

The trip distribution to / from the site has been based on the turning proportions from the traffic survey conducted on Thursday 15th June 2017 and Saturday 17th June 2017. The traffic flow diagrams are provided within **Appendix E**.

7. Operational Assessment

7.1 Introduction

This section of the TA provides details on the anticipated impact of the development on the local road network. Operational assessments were undertaken for the Weekday AM, Weekday PM and Saturday peak hours as set out in the scope with a consideration of existing (base) and assessment years with and without the proposed development traffic flows.

7.2 Assessment Scenarios

In accordance with the DfT's 'Guidance on Transport Assessments' the assessments consider the impact of the proposed development trips in the context of the Base scenario for 2017 and 2022 and a Base + Development scenario for 2022 at the following junctions:

- Elizabeth Street / Cheetham Hill Retail Park site access;
- Elizabeth Street / Queens Road;
- Elizabeth Street / Cheetham Hill Road;
- Cheetham Hill Road / Manchester Fort Shopping Park site access; and
- Cheetham Hill Road / Queens Road.

7.3 Base Flows and Growth Factors

Base traffic flows were obtained from a traffic survey carried out on Thursday 15th June 2017 and Saturday 17th June 2017. The full survey data is provided in **Appendix E**.

TEMPRO was used to identify growth factors to scale surveyed base flows to the assessment year of 2022, and the factors are provided in [Table 13](#).

Table 13: TEMPRO Growth Factors

Scenario		Growth Rate
Weekday AM peak	2017-2022	1.0775
Weekday PM peak	2017-2022	1.0747
Saturday Peak	2017-2022	1.0755

7.4 Committed Developments

Committed Development flows associated with the Eden Academy development, which now has planning permission, have been considered as part of the junction assessments, as requested by the Local Authority.

Eden Academy consists of two schools comprising of Eden Girls and Eden Boys Academies on land to the south east of the proposed development site considered within this TA, with access off Rayburn Way. The Academy will consist of the following:

- Eden Girls Academy – 800 Secondary pupils, including 200 sixth form;
- Eden Boys Academy – 800 Secondary pupils, including 200 sixth form; and
- 30 Full Time Equivalent (FTE) staff across both schools to 72 FTE per school when fully occupied.

The associated trips with the Academy and are shown within **Appendix E**, it should be noted that only the AM peak trips have been considered as the school peak hour differs from the evening PM peak hour assessed within this TA and the Academy does not generate any trips during a Saturday. The associated trips have been included within the Base + Development 2022 scenarios.

7.5 Operational Assessments

7.5.1 Elizabeth Street / Cheetham Hill Retail Park

The modelling software package, Junctions 9, has been used to assess the operation of the junctions listed above. The software uses Ratio to Flow Capacity (RFC) to measure the capacity of the junction. RFC values of less than 0.85 are considered to indicate the junction operates at an acceptable level. Values between 0.85 – 1.00 are considered to indicate the junction is approaching capacity. Values above 1.00 are considered to indicate a junction operation over capacity.

The modelling outputs are provided in **Appendix F**.

Base 2017

Table 14 below presents the results of the Junctions 9 modelling for the Weekday AM, Weekday PM and Saturday peak hour base 2017 scenario (i.e. the current situation).

Table 14: Base 2017 Elizabeth Street / Cheetham Hill Retail Park

	Weekday AM (08:00-09:00)		Weekday PM (17:00-18:00)		Saturday (15:00-16:00)	
	RFC	Queue	RFC	Queue	RFC	Queue
Elizabeth Street (NW)	-	-	-	-	-	-
Cheetham Hill Retail Park	0.006	0	0.157	0	0.258	0
Elizabeth Street (SE)	0.009	0	0.164	0	0.205	0

The results in **Table 14** indicate that the Elizabeth Street / Cheetham Hill Retail Park junction during the Base 2017 scenario is likely to operate within capacity during the Weekday AM, Weekday PM and Saturday peak hours. The maximum RFC on the Cheetham Hill Retail Park site access approach is 0.258 in the Saturday peak hour with an associated maximum queue of 0 vehicles.

Base 2022

Table 15 below presents the results of the Junctions 9 modelling for the Weekday AM, Weekday PM and Saturday peak hour base 2022 scenario.

Table 15: Base 2022 Elizabeth Street / Cheetham Hill Retail Park

	Weekday AM (08:00-09:00)		Weekday PM (17:00-18:00)		Saturday (15:00-16:00)	
	RFC	Queue	RFC	Queue	RFC	Queue
Elizabeth Street (NW)	-	-	-	-	-	-
Cheetham Hill Retail Park	0.007	0	0.170	0	0.283	0
Elizabeth Street (SE)	0.009	0	0.178	0	0.224	0

The results in **Table 15** indicate that the Elizabeth Street / Cheetham Hill Retail Park junction during the Base 2022 scenario is likely to operate within capacity during the Weekday AM, Weekday PM and Saturday peak hours. The maximum RFC on the Cheetham Hill Retail Park site access approach is 0.283 in the Saturday peak hour with an associated maximum queue of 0 vehicles.

Base 2022 + Development

Table 16 below presents the results of the Junctions 9 modelling for the Weekday AM, Weekday PM and Saturday peak hour base 2022 + Development scenario.

Table 16: Base 2022 + Development Elizabeth Street / Cheetham Hill Retail Park

	Weekday AM (08:00-09:00)		Weekday PM (17:00-18:00)		Saturday (15:00-16:00)	
	RFC	Queue	RFC	Queue	RFC	Queue
Elizabeth Street (NW)	-	-	-	-	-	-
Cheetham Hill Retail Park	0.026	0.0	0.202	0.3	0.379	0.6
Elizabeth Street (SE)	0.031	0.0	0.209	0.3	0.299	0.4

The results in [Table 16](#) indicate that the Elizabeth Street / Cheetham Hill Retail Park junction during the Base 2022 + Development scenario is likely to operate within capacity during the Weekday AM, Weekday PM and Saturday peak hours. The maximum RFC on the Cheetham Hill Retail Park site access approach is 0.379 in the Saturday peak hour with an associated maximum queue of 1 vehicle.

7.5.2 Elizabeth Street / Queens Road

The modelling software package, Junctions 9, has been used to assess the operation of the junctions listed above.

The modelling outputs are provided in **Appendix F**.

Base 2017

[Table 17](#) below presents the results of the Junctions 9 modelling for the Weekday AM, Weekday PM and Saturday peak hour base 2017 scenario (i.e. the current situation).

Table 17: Base 2017 Elizabeth Street / Queens Road

	Weekday AM (08:00-09:00)		Weekday PM (17:00-18:00)		Saturday (15:00-16:00)	
	RFC	Queue	RFC	Queue	RFC	Queue
Queens Road (E)	-	-	-	-	-	-
Elizabeth Street (S)	0.034	0	0.497	1	0.409	1
Queens Road (W)	0.600	2	0.428	1	0.605	2

The results in [Table 17](#) indicate that the Elizabeth Street / Queens Road junction during the Base 2017 scenario is likely to operate within capacity during the Weekday AM, Weekday PM and Saturday peak hours. The maximum RFC on the Queens Road (W) approach is 0.605 in the Saturday peak hour with an associated maximum queue of 2 vehicles.

Base 2022

[Table 18](#) below presents the results of the Junctions 9 modelling for the Weekday AM, Weekday PM and Saturday peak hour base 2022 scenario.

Table 18: Base 2022 Elizabeth Street / Queens Road

	Weekday AM (08:00-09:00)		Weekday PM (17:00-18:00)		Saturday (15:00-16:00)	
	RFC	Queue	RFC	Queue	RFC	Queue
Queens Road (E)	-	-	-	-	-	-
Elizabeth Street (S)	0.065	0	0.546	1	0.447	1
Queens Road (W)	0.656	2	0.467	1	0.660	2

The results in [Table 18](#) indicate that the Elizabeth Street / Queens Road junction during the Base 2022 scenario is likely to operate within capacity during the Weekday AM, Weekday PM and Saturday peak hours. The maximum RFC on the Queens Road (W) approach is 0.660 in the Saturday peak hour with an associated maximum queue of 2 vehicles.

Base 2022 + Development

[Table 19](#) below presents the results of the Junctions 9 modelling for the Weekday AM, Weekday PM and Saturday peak hour base 2022 + Development scenario.

Table 19: Base 2022 + Development Elizabeth Street / Queens Road

	Weekday AM (08:00-09:00)		Weekday PM (17:00-18:00)		Saturday (15:00-16:00)	
	RFC	Queue	RFC	Queue	RFC	Queue
Queens Road (E)	-	-	-	-	-	-
Elizabeth Street (S)	0.078	0.1	0.103	0.1	0.524	1.1
Queens Road (W)	0.682	2.3	0.507	1.1	0.745	3.0

The results in [Table 19](#) indicate that the Elizabeth Street / Queens Road junction during the Base 2022 + Development scenario is likely to operate within capacity during the Weekday AM, Weekday PM and Saturday peak hours. The maximum RFC on the Elizabeth Street approach is 0.745 in the Saturday peak hour with an associated maximum queue of 3 vehicles.

7.5.3 Elizabeth Street / Cheetham Hill Road

The modelling software package, Linsig 3, has been used to assess the Elizabeth Street / Cheetham Hill Road signalised junction. The software uses Degree of Saturation for each lane, of which values of 90% or less are considered to indicate the acceptable operation of the junction.

The modelling outputs are provided in **Appendix F**.

Base 2017

[Table 20](#) below presents the results of the Linsig 3 modelling for the Weekday AM, Weekday PM and Saturday peak hour base 2017 scenario.

Table 20: Base 2017 Elizabeth Street / Cheetham Hill Road

	Weekday AM (08:00-09:00)		Weekday PM (17:00-18:00)		Saturday (15:00-16:00)	
	Degree of Saturation (%)	Mean Max Queue	Degree of Saturation (%)	Mean Max Queue	Degree of Saturation (%)	Mean Max Queue
Cheetham Hill Road (N)						
1) Left/Ahead	71.6	15	52.3	9	56.9	10
2) Ahead/Right	68.7	14	92.3	13	63.7	11
North Street	41.6	2	92.8	12	66.3	4
Cheetham Hill Road (S)						
1) Ahead/Left	21.0	3	79.3	16	51.6	8
2) Ahead/Right	20.5	3	75.9	15	49.6	8
Elizabeth Street	62.4	7	69.2	7	66.9	8

The results in [Table 20](#) indicate that the Cheetham Hill Road / Manchester Fort Shopping Park junction during the Base 2017 scenario is likely to operate within capacity during the Weekday AM and Saturday peak hours and approaching capacity during the Weekday PM peak hour. The maximum Degree of Saturation on the North Street approach is 92.8% in the Weekday PM peak with associated mean maximum queues of 12 vehicles.

Base 2022

[Table 21](#) below presents the results of the Linsig 3 modelling for the Weekday AM, Weekday PM and Saturday peak hour base 2022 scenario.

Table 21: Base 2022 Elizabeth Street / Cheetham Hill Road

	Weekday AM (08:00-09:00)		Weekday PM (17:00-18:00)		Saturday (15:00-16:00)	
	Degree of Saturation (%)	Mean Max Queue	Degree of Saturation (%)	Mean Max Queue	Degree of Saturation (%)	Mean Max Queue
Cheetham Hill Road (N)						
1) Left/Ahead	77.6	17	54.8	9	61.0	11
2) Ahead/Right	74.0	16	108.5	32	74.2	12
North Street	44.7	2	106.8	23	71.3	4
Cheetham Hill Road (S)						
1) Ahead/Left	22.6	3	83.0	18	55.5	9
2) Ahead/Right	22.0	3	79.6	17	53.2	9
Elizabeth Street	67.3	8	74.3	8	71.9	9

The results in [Table 21](#) indicate that the Cheetham Hill Road / Manchester Fort Shopping Park junction during the Base 2022 scenario is likely to operate within capacity during the Weekday AM and Saturday peak hours and above capacity during the Weekday PM peak hour. The maximum Degree of Saturation on the ahead/right movement of the Cheetham Hill Road (N) approach is 108.5% in the Weekday PM peak with associated mean maximum queues of 32 vehicles.

Base 2022 + Development

[Table 22](#) below presents the results of the Linsig 3 modelling for the Weekday AM, Weekday PM and Saturday peak hour base 2022 + development scenario.

Table 22: Base 2022 + Development Elizabeth Street / Cheetham Hill Road

	Weekday AM (08:00-09:00)		Weekday PM (17:00-18:00)		Saturday (15:00-16:00)	
	Degree of Saturation (%)	Mean Max Queue	Degree of Saturation (%)	Mean Max Queue	Degree of Saturation (%)	Mean Max Queue
Cheetham Hill Road (N)						
1) Left/Ahead	101.5%	38	53.9%	9	60.6%	11
2) Ahead/Right	96.0%	28	115.2%	46	81.0%	13
North Street	102.1%	19	115.1%	32	71.3%	4
Cheetham Hill Road (S)						
1) Ahead/Left	27.3%	4	81.8%	17	56.0%	9
2) Ahead/Right	26.8%	4	78.3%	17	53.2%	9
Elizabeth Street	90.2%	14	77.7%	8	80.9%	23

The results in [Table 22](#) indicate that the Cheetham Hill Road / Manchester Fort Shopping Park junction during the Base 2022 + Development scenario is likely to operate within capacity during the Saturday peak hour and over capacity during the Weekday AM and PM peak hours.

During the Weekday AM peak the Cheetham Hill Road (N) and North Street approaches show a maximum DoS of 101.5% and 102.1% with an associated mean max queue of 38 and 19 vehicles respectively, however the development does not generate any development trips along North Street only 5 development trips are generated along the Cheetham Hill Road (N) approach which equates to 1 vehicle every 12 minutes and therefore it is considered that the development traffic would have very little impact.

During the Weekday PM peak the ahead / right movement of the Cheetham Hill Road (N) and North Street approaches have a DoS of 115.2% and 115.1% respectively and queues of 46 and 32. As with the AM scenario the development does not generate any trips along North Street and only 7 trips along the Cheetham Hill Road (N) which equates to approximately 1 vehicle every 9 minutes and therefore it is considered that the development traffic would have very little impact.

7.5.4 Cheetham Hill Road / Manchester Fort Shopping Park site access

The modelling software package, Linsig 3, has been used to assess the Cheetham Hill Road / Manchester Fort Shopping Park signalised junction.

The modelling outputs are provided in **Appendix F**.

Base 2017

Table 23 below presents the results of the Linsig 3 modelling for the Weekday AM, Weekday PM and Saturday peak hour base 2017 scenario.

Table 23: Base 2017 Cheetham Hill Road / Manchester Fort Shopping Park

	Weekday AM (08:00-09:00)		Weekday PM (17:00-18:00)		Saturday (15:00-16:00)	
	Degree of Saturation (%)	Mean Max Queue	Degree of Saturation (%)	Mean Max Queue	Degree of Saturation (%)	Mean Max Queue
Cheetham Hill Road (N)						
1) Left/Ahead	54.5	9	69.9	8	89.1	13
2) Ahead	47.7	9	67.0	8	89.4	11
Cheetham Hill Road (S)						
1) Ahead	12.2	1	41.7	7	27.2	4
2) Ahead/Right	54.8	3	71.1	8	89.0	17
Manchester Fort						
1) Left	20.5	2	20.9	3	25.4	3
2) Right	16.6	1	68.8	6	89.1	16

The results in **Table 23** indicate that the Cheetham Hill Road / Manchester Fort Shopping Park junction during the Base 2017 scenario is likely to operate within capacity during the Weekday AM, Weekday PM and Saturday peak hours. The maximum Degree of Saturation on the left/ahead movement of the Cheetham Hill Road (N) approach is 89.4% in the Saturday peak with associated mean max queues of 11 vehicles.

Base 2022

[Table 24](#) below presents the results of the modelling for the Weekday AM, Weekday PM and Saturday peak hour base 2022 scenario.

Table 24: Base 2022 Cheetham Hill Road / Manchester Fort Shopping Park

	Weekday AM (08:00-09:00)		Weekday PM (17:00-18:00)		Saturday (15:00-16:00)	
	Degree of Saturation (%)	Mean Max Queue	Degree of Saturation (%)	Mean Max Queue	Degree of Saturation (%)	Mean Max Queue
Cheetham Hill Road (N)						
1) Left/Ahead	58.7	10	75.1	9	96.1	17
2) Ahead	51.5	9	72.0	9	96.1	14
Cheetham Hill Road (S)						
1) Ahead	13.1	1	44.8	8	29.2	5
2) Ahead/Right	58.9	3	76.5	9	95.8	24
Manchester Fort						
1) Left	21.9	2	22.4	3	27.3	4
2) Right	17.7	1	74.0	6	95.8	22

The results in [Table 24](#) indicate that the Cheetham Hill Road / Manchester Fort Shopping Park junction during the Base 2022 scenario is likely to operate within capacity during the Weekday AM and Weekday PM peak hours, and approaching capacity during the Saturday peak hour. The maximum Degree of Saturation for left/ahead and ahead movements of the Cheetham Hill Road (N) approach is 96.1% in the Saturday peak with associated mean max queues of 17 and 14 vehicles, respectively.

Base 2022 + Development

[Table 25](#) below presents the results of the Linsig 3 modelling for the Weekday AM, Weekday PM and Saturday peak hour base 2022 + development scenario.

Table 25: Base 2022 + Development Cheetham Hill Road / Manchester Fort Shopping Park

	Weekday AM (08:00-09:00)		Weekday PM (17:00-18:00)		Saturday (15:00-16:00)	
	Degree of Saturation (%)	Mean Max Queue	Degree of Saturation (%)	Mean Max Queue	Degree of Saturation (%)	Mean Max Queue
Cheetham Hill Road (N)	64.5%	11	76.1%	9	92.6%	16
1) Left/Ahead	57.2%	11	72.1%	9	92.6%	12
2) Ahead						
Cheetham Hill Road (S)	17.9%	2	44.4%	7	29.5%	46
1) Ahead	58.9%	3	75.5%	9	96.3%	24
2) Ahead/Right						
Manchester Fort	21.9%	2	22.4%	3	27.7%	4
1) Left	17.7%	1	76.7%	7	98.1%	26
2) Right						

The results in [Table 25](#) indicate that the Cheetham Hill Road / Manchester Fort Shopping Park junction during the Base 2022 + development scenario is likely to operate within capacity during the Weekday AM and Weekday PM peak hours, and close to capacity during the Saturday peak hour. The maximum Degree of Saturation on the ahead movement of the Cheetham Hill Road (N) approach is 98.1% in the Saturday peak with an associated mean max queue of 15 vehicles. This equates to a maximum of 1 additional vehicle along the Cheetham Hill Road (N) approach associated with the development when compared to the Base 2022 scenario and therefore it is considered that the development traffic would have little impact.

7.5.5 Cheetham Hill Road / Queens Road

The modelling software package, Linsig 3, has been used to assess the Cheetham Hill Road / Queens Road signalised junction.

The modelling outputs are provided in **Appendix F**.

Base 2017

Table 26 below presents the results of the Linsig 3 modelling for the Weekday AM, Weekday PM and Saturday peak hour base 2017 scenario.

Table 26: Base 2017 Cheetham Hill Road / Queens Road

	Weekday AM (08:00-09:00)		Weekday PM (17:00-18:00)		Saturday (15:00-16:00)	
	Degree of Saturation (%)	Mean Max Queue	Degree of Saturation (%)	Mean Max Queue	Degree of Saturation (%)	Mean Max Queue
Cheetham Hill Road (N)						
1) Left/Ahead	69.3	12	82.8	10	81.7	11
2) Ahead/Right	67.9	12	85.7	12	83.8	12
Queens Road (E)						
1) Left/Ahead	70.4	9	88.7	16	87.2	11
2) Right/Ahead	57.1	4	65.0	3	61.6	3
Cheetham Hill Road (S)						
1) Ahead/Left	2.4	0	60.0	11	43.3	7
2) Right/Ahead	62.4	6	88.5	17	85.4	15
Queens Road (W)						
1) Ahead/Left	67.8	10	87.2	13	83.3	8

The results in **Table 26** indicate that the Cheetham Hill Road / Queens Road junction during the Base 2017 scenario is likely to operate within capacity during the Weekday AM, Weekday PM and Saturday peak hours. The maximum Degree of Saturation on the left/ahead movement of the Queens Road (E) approach is 88.7% in the Weekday PM peak with an associated mean max queue of 16 vehicles.

Base 2022

[Table 27](#) below presents the results of the modelling for the Weekday AM, Weekday PM and Saturday peak hour base 2022 scenario.

Table 27: Base 2022 Cheetham Hill Road / Queens Road

	Weekday AM (08:00-09:00)		Weekday PM (17:00-18:00)		Saturday (15:00-16:00)	
	Degree of Saturation (%)	Mean Max Queue	Degree of Saturation (%)	Mean Max Queue	Degree of Saturation (%)	Mean Max Queue
Cheetham Hill Road (N)						
1) Left/Ahead	74.2	14	89.6	12	84.4	12
2) Ahead/Right	73.5	14	91.5	14	86.4	14
Queens Road (E)						
1) Left/Ahead	79.2	14	90.2	17	92.3	15
2) Right/Ahead	61.5	4	70.4	4	69.3	4
Cheetham Hill Road (S)						
1) Ahead/Left	2.8	0	82.0	19	62.7	13
2) Right/Ahead	67.1	7	93.5	20	87.7	17
Queens Road (W)						
1) Ahead/Left	73.2	11	93.6	16	89.5	10

The results in [Table 27](#) indicate that the Cheetham Hill Road / Queens Road junction during the Base 2022 scenario is likely to operate within capacity during the Weekday AM, and approaching capacity during the Weekday PM and Saturday peak hours. The maximum Degree of Saturation on the ahead/left movement of the Queens Road (W) approach is 93.6% in the Weekday PM peak with an associated mean max queue of 16 vehicles.

Base 2022 + Development

Table 28 below presents the results of the modelling for the Weekday AM, Weekday PM and Saturday peak hour base 2022 + development scenario.

Table 28: Base 2022 + Development Cheetham Hill Road / Queens Road

	Weekday AM (08:00-09:00)		Weekday PM (17:00-18:00)		Saturday (15:00-16:00)	
	Degree of Saturation (%)	Mean Max Queue	Degree of Saturation (%)	Mean Max Queue	Degree of Saturation (%)	Mean Max Queue
Cheetham Hill Road (N)						
1) Left/Ahead	83.3%	16	89.8%	12	89.0%	13
2) Ahead/Right	82.8%	17	91.8%	14	90.2%	15
Queens Road (E)						
1) Left/Ahead	83.6%	18	92.5%	19	88.3%	12
2) Right/Ahead	66.4%	4	72.0%	4	69.3%	4
Cheetham Hill Road (S)						
1) Ahead/Left	52.5%	9	83.9%	19	69.4%	15
2) Right/Ahead	81.1%	7	94.0%	21	90.1%	18
Queens Road (W)						
1) Ahead/Left	76.0%	11	89.6%	14	79.2%	8

The results in **Table 28** indicate that the Cheetham Hill Road / Queens Road junction during the Base 2022 + Development scenario is likely to operate within capacity during the Weekday AM, and approaching capacity during the Weekday PM and Saturday peak hours. The maximum Degree of Saturation on the right/ahead movement of the Cheetham Hill Road (S) approach is 94% in the Weekday PM peak with an associated mean max queue of 21 vehicles. This equates to no additional vehicles along the Cheetham Hill Road (S) approach associated with the development when compared to the Base 2022 scenario and therefore it is considered that the development traffic has little impact.

It is acknowledged that during the Saturday the maximum DoS is shown to be slightly over the acceptable 90% along the Cheetham Hill Road (N) and (S) approaches of 90.2% and 90.1% respectively, however these are minimal and it is considered not to have a detrimental impact of the operation of the junction.

8. Summary and Conclusion

The following summarises the findings of this TA.

8.1 Introduction

The proposals consist of an increase in the Gross Floor Area (GFA) from 96,645 sq ft (8,979 sqm) to 46,132 sq ft (13,577 sqm) to provide five retail units including a food retail unit of 1,922 sqm and additional non-food retail units of 11,665sqm

AECOM have produced this Transport Assessment (TA) on behalf of Sports Direct in support of proposals for an increase of the existing retail units GFA increasing the four existing retail units to five units with two mezzanine floors, located within Cheetham Hill Retail Park, Manchester

8.2 Policy Review

The assessment of the proposals against national, regional and local policy / guidance confirms its acceptability in transport and land use planning terms.

8.3 Baseline Conditions

This section sets out the existing site location and provides a summary of the existing highway conditions in the vicinity of the site.

Accident reports for the highway network around the site have been considered for the most recent full five years period available (2012-2016 inclusive) for the road network around the site. No specific incident patterns were identified which are considered to be exacerbated by traffic associated with the proposed development.

8.4 Accessibility

This section considers the existing provision for sustainable travel to and from the proposed site. The site is well served by a range of sustainable transport links.

Pedestrian infrastructure in the surrounds of the proposed development site is of a high standard and is conducive to creating a pedestrian friendly environment with high permeability between the proposed site location and the main retail area and the town centre.

National Cycle Network (NCN) Route 60 is located approximately 1.3km to the east of the proposed development site and runs between North and East Manchester, with its furthest south segment forming part of the Fallowfield Loopline. It is open and signed between the northernmost edge of Houldsworth Golf Course in Reddish - from where it branches off from National Route 6 - and Harpurhey. Close to the development site it can be accessed via Queens Road / Rockdale Road junction

The road speeds, carriageway width and proximity of the site to the surrounding residential areas make both walking and cycling to the site a viable option.

There is a high level of public transport which can be accessed from the proposed site. There are 18 bus stops within a distance of 800m from the site. Based on the high number of services within a close proximity of the site, it is considered that the proposals would be well served by public transport, offering an attractive alternative to personal vehicle use.

Manchester Victoria Railway Station is located on Hunts Bank, less than 1.1km southeast from the subject site, and therefore is directly accessible by sustainable modes as it does not exceed the maximum walking and cycling distance. Most trains calling at Victoria Railway Station are operated by Northern Rail, except for TransPennine Express services from Liverpool to Newcastle. It provides direct connections to destinations in Northern England, such as Rochdale, Bradford, Leeds, Newcastle, Huddersfield, Wigan, Southport, Blackpool and Liverpool using the original Liverpool to Manchester line.

Queens Road is the closest Metrolink station to the proposed site which is part of Service A (between Altrincham and Bury) and C (between Bury and Piccadilly), and provides access to eight services (A-H) around Greater Manchester. The services run every 12 minutes Monday – Sunday providing a highly accessible alternative to personal vehicle use.

8.5 Development Proposals

This section provides details of the proposed development including access and parking arrangements.

8.6 Trip Generation

Information from industry standard TRICS software has been used to predict the volume of traffic generated by the proposed development during weekdays AM peak (09.00-10.00) and PM peak (17.00-18.00) periods and Saturday (14.00-15.00). The total number of vehicle movements associated with the proposed development has thus been assumed as 17 additional two-way trips in the AM peak hour, 13 additional two-way trips in the PM peak hour and 118 additional two-way trips on Saturday's peak hour.

8.7 Operational Assessments

The junctions that have been assessed at the three scenarios: Base 2017, Base 2022 and Base 2022 + Development, are:

- Elizabeth Street / Cheetham Hill Retail Park site access;
- Elizabeth Street / Queens Road;
- Elizabeth Street / Cheetham Hill Road;
- Cheetham Hill Road / Manchester Fort Shopping Park site access; and
- Cheetham Hill Road / Queens Road.

Based on the results of the operational assessment, it is clear the proposed development will have varied effects on local junctions. A summary of each junction is shown in [Table 29](#), and detailed below.

Table 29: Summary of Operational Assessments

Junction	Base 2017			Base 2022			Base 2022 + Development		
	AM	PM	Sat	AM	PM	Sat	AM	PM	Sat
Elizabeth Street / Cheetham Hill Retail Park	✓	✓	✓	✓	✓	✓	✓	✓	✓
Elizabeth Street Queens Road	✓	✓	✓	✓	✓	✓	✓	✓	✓
Elizabeth Street / Cheetham Hill Road	✓	~	✓	✓	✗	✓	✗	✗	✓
Cheetham Hill Road / Manchester Fort	✓	✓	✓	✓	✓	~	✓	✓	✗
Cheetham Hill Road / Queens Road	✓	✓	✓	✓	~	~	✓	✗	~

Key: Below Capacity ✓ Variable Junction Operation ~ Over-capacity ✗

- The Elizabeth Street / Cheetham Hill Retail Park site access T-junction operates well within capacity during all scenarios.
- The assessment of the Elizabeth Street / Queens Road T-junction shows that it operates well within capacity during all scenarios.
- The Elizabeth Street / Cheetham Hill Road signalised junction operates within capacity during the Weekday AM and Saturday peak hours, The Weekday AM is expected to operate above capacity during the 2022 + Development Scenario. The Weekday PM peak hour operates approaching capacity during the Base 2017 scenario, but is expected to operate above capacity during the Base 2022 and subsequently the Base 2022 + Development scenario.
- The Cheetham Hill Road / Manchester Fort signalised junction operates within capacity during the Weekday AM and PM peak hours. It operates within capacity during the Saturday peak hour of the Base 2017

scenario, though is expected to operate approaching capacity during the Base 2022 scenario and above capacity during the Base 2022 + Development scenario.

- The assessment of the Cheetham Hill Road / Queens Road signalised junction operates within capacity during the Base 2017 scenario. During the Base 2022 and Base 2022 + Development scenarios, the junction is likely to operate within capacity in the AM peak hour, however approaching capacity during the PM and Saturday peak hours during the Base 2022 and above capacity during the weekday PM.

The results show that the addition of development traffic would generally have little impact on the operation of the local road network. Therefore, the trips associated with the development proposals are minimal in comparison with Base traffic flows and would not comprise a severe impact on the network.

8.8 Conclusion

Given the findings of the TA, it is considered that the traffic impacts of the development proposals are minimal, and that the site accords with Local, Regional and National Policy. Thus, there are no substantive highway reasons why the development proposals should not be granted consent and the development is not considered to have a severe or material traffic impact.

Appendix A Figures & Drawings



Legend

 Site Location

Title:

Site Location

Project:

Sports Direct

Drawn	MK	Design	MK
Checked	NS	Scale	
Approved	HB	Date	01/06/17

Client:

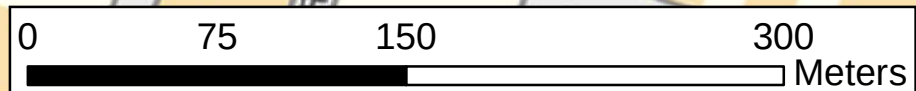
**SPORTS
DIRECT.COM**

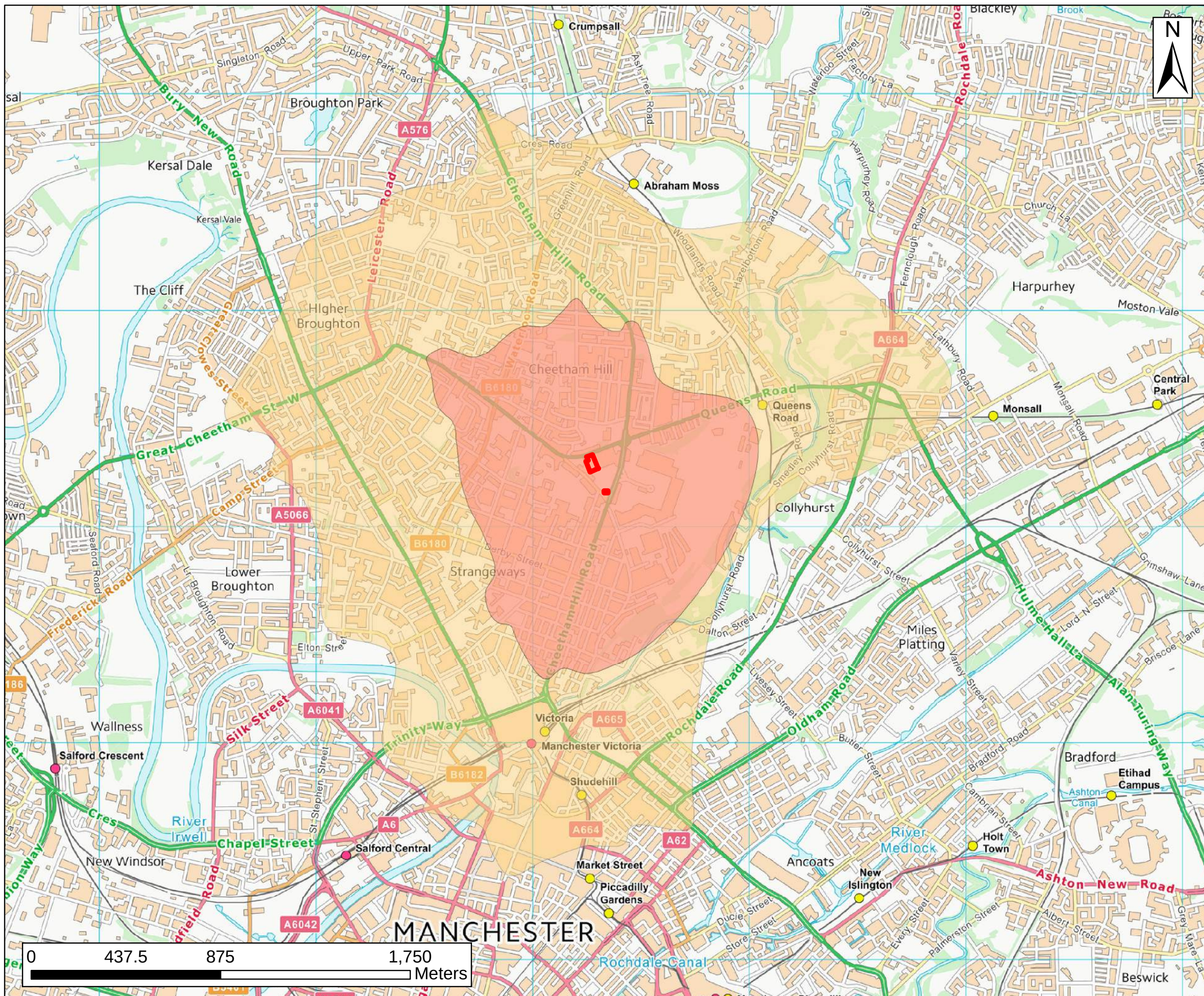
AECOM

5th Floor
2 City Walk
Leeds
LS11 9AR

Tel: 0113 391 6800
Fax: 0133 391 6899
www.aecom.com

Drawing Number: Figure 1





Legend

-  Site Location
-  1km
-  2km

Title:

5km and 8km
Cycling Isochrones

Project:

Sports Direct

Drawn	MK	Design	MK
Checked	HB	Scale	
Approved	HB	Date	01/06/17

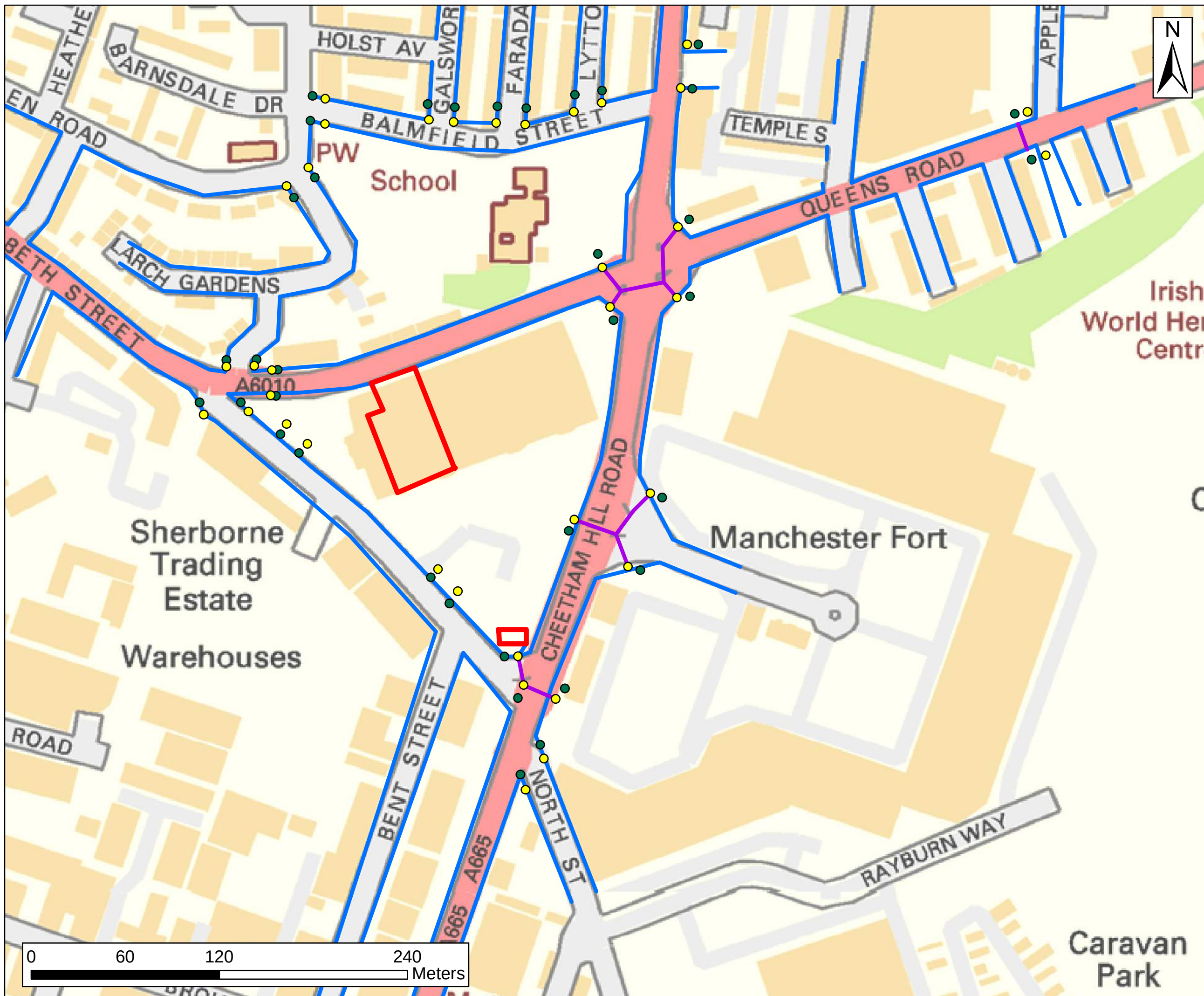
Client:

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2 City Walk
Leeds
LS11 9AR

Tel: 0113 391 6800
Fax: 0133 391 6899
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Legend

-  Site Location
-  Tactile Paving
-  Dropped Kerb
-  Ped Crossings
-  Footways

Title:

Pedestrian Access

Project:

Sports Direct

Drawn	MK	Design	MK
Checked	NS	Scale	
Approved	HB	Date	01/06/17

Client:

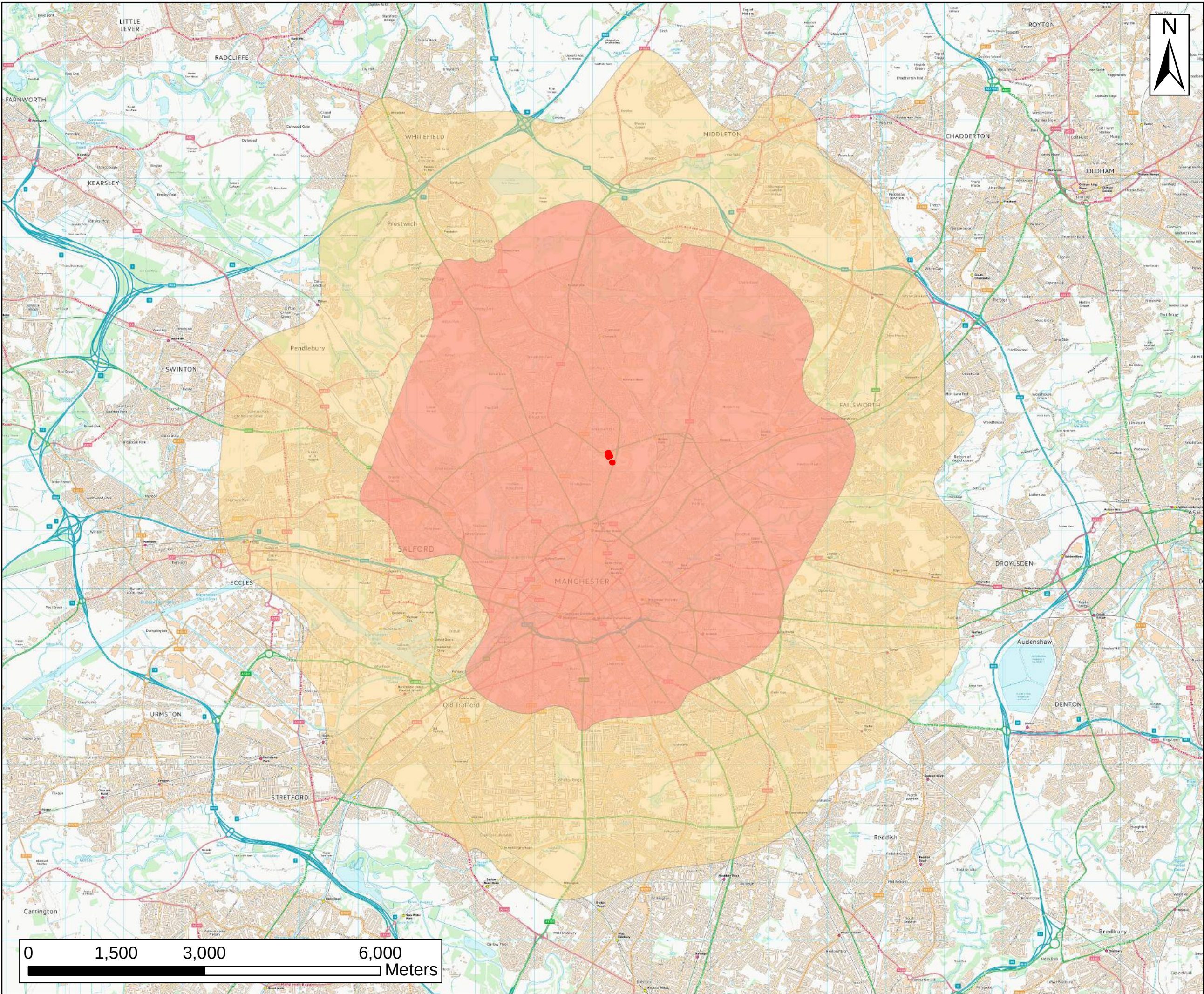
SPORTS
DIRECT.COM

AECOM

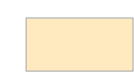
5th Floor
2 City Walk
Leeds
LS11 9AR

Tel: 0113 391 6800
Fax: 0133 391 6899
www.aecom.com

Drawing Number: Figure 7



Legend

-  Site Location
-  5km
-  8km

Title:

5km and 8km
Cycling Isochrones

Project:

Sports Direct

Drawn	MK	Design	MK
Checked	HB	Scale	
Approved	HB	Date	01/06/17

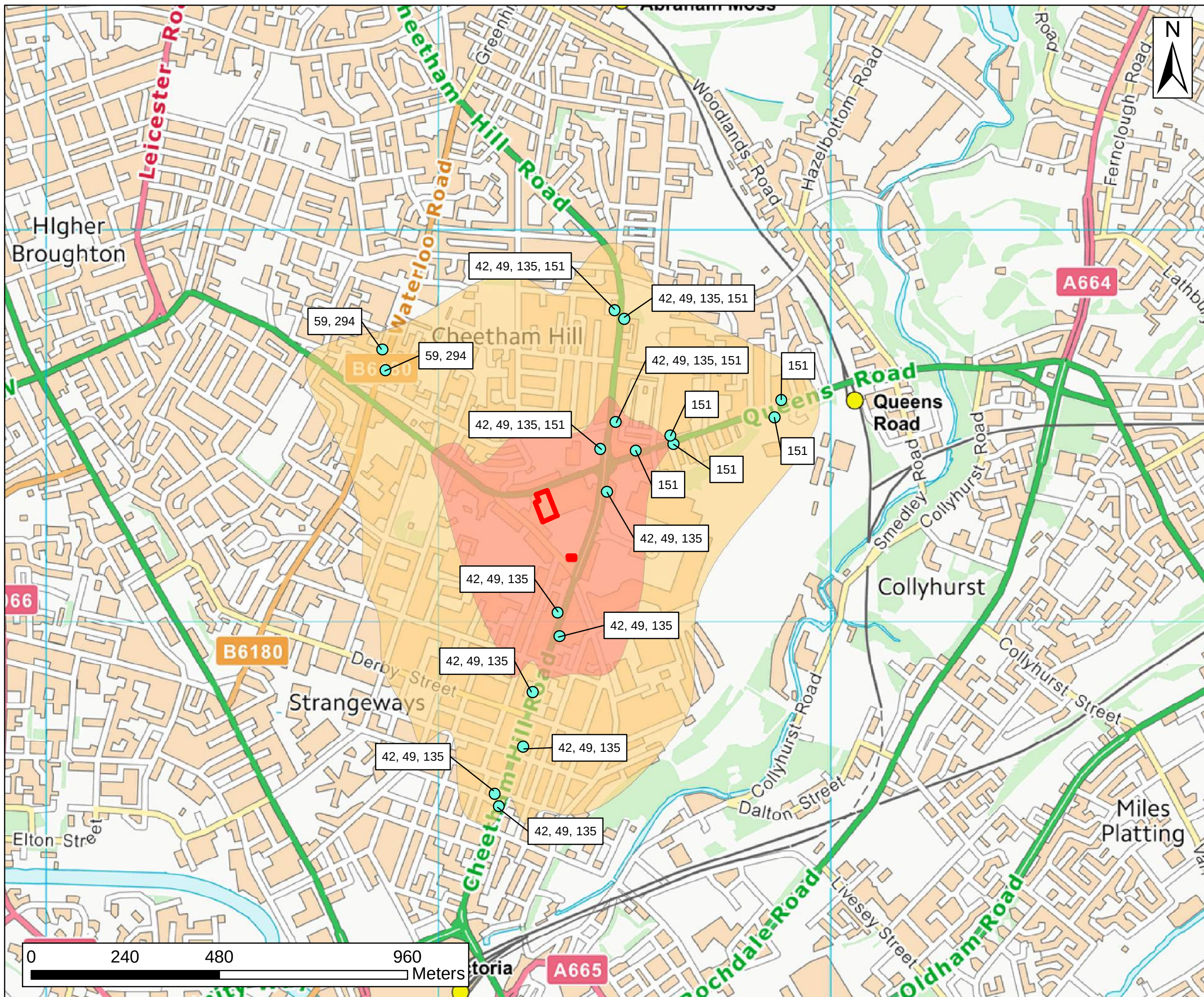
Client:





5th Floor
2 City Walk
Leeds
LS11 9AR

Tel: 0113 391 6800
Fax: 0133 391 6899
www.aecom.com



Legend

-  Site Location
-  Bus Stops
-  400m
-  800m

Title:

Bus Stops
400m & 800m Isochrones

Project:

Sports Direct

Drawn	MK	Design	MK
Checked	HB	Scale	
Approved	HB	Date	01/06/17

Client:

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Appendix B Car Park Accumulation Study

Project Number: **TSP13177**
 Project Name: **Cheetham Hill Road, Manchester**
 Survey Type: **Car Park Accumulation**
 Site No: **CP-1**
 Location: **Cheetham Hill Retail Park**
 Date: **04 May 2017, Thursday**



The summary below excludes 2-wheelers.

Available bays =	343
Vehicles in at start =	16
Vehicles in at end =	26
Peak accumulation =	150

Time Period Starting	Total Vehicles In	Total Vehicles Out	Car Park Acc	Utilisation
08:00	2	0	18	5%
08:15	4	1	21	6%
08:30	6	5	22	6%
08:45	7	1	28	8%
09:00	17	7	38	11%
09:15	17	13	42	12%
09:30	31	17	56	16%
09:45	30	17	69	20%
10:00	35	29	75	22%
10:15	28	29	74	22%
10:30	36	24	86	25%
10:45	50	32	104	30%
11:00	37	43	98	29%
11:15	47	45	100	29%
11:30	52	42	110	32%
11:45	56	36	130	38%
12:00	73	53	150	44%
12:15	43	57	136	40%
12:30	59	60	135	39%
12:45	51	64	122	36%
13:00	46	39	129	38%
13:15	50	45	134	39%
13:30	46	55	125	36%
13:45	39	47	117	34%
14:00	36	51	102	30%
14:15	52	54	100	29%
14:30	45	56	89	26%
14:45	36	39	86	25%
15:00	33	42	77	22%
15:15	41	28	90	26%
15:30	37	40	87	25%
15:45	31	43	75	22%
16:00	41	38	78	23%
16:15	22	34	66	19%
16:30	33	26	73	21%
16:45	34	35	72	21%
17:00	31	35	68	20%
17:15	29	33	64	19%
17:30	38	38	64	19%
17:45	36	33	67	20%
18:00	36	43	60	17%
18:15	31	33	58	17%
18:30	37	25	70	20%
18:45	29	45	54	16%
19:00	28	26	56	16%
19:15	23	31	48	14%
19:30	18	28	38	11%
19:45	14	26	26	8%
Total	1653	1643		

Half-Hour Summary

Time Period Starting	Total Vehicles In	Total Vehicles Out	Car Park Acc
08:00	6	1	21
08:30	13	6	28
09:00	34	20	42
09:30	61	34	69
10:00	63	58	74
10:30	86	56	104
11:00	84	88	100
11:30	108	78	130
12:00	116	110	136
12:30	110	124	122
13:00	96	84	134
13:30	85	102	117
14:00	88	105	100
14:30	81	95	86
15:00	74	70	90
15:30	68	83	75
16:00	63	72	66
16:30	67	61	72
17:00	60	68	64
17:30	74	71	67
18:00	67	76	58
18:30	66	70	54
19:00	51	57	48
19:30	32	54	26
Tot	1653	1643	

Hourly Summary

Time Period Starting	Total Vehicles In	Total Vehicles Out	Car Park Acc
08:00	19	7	28
09:00	95	54	69
10:00	149	114	104
11:00	192	166	130
12:00	226	234	122
13:00	181	186	117
14:00	169	200	86
15:00	142	153	75
16:00	130	133	72
17:00	134	139	67
18:00	133	146	54
19:00	83	111	26
Tot	1653	1643	

Project Number: **TSP13177**
 Project Name: **Cheetham Hill Road, Manchester**
 Survey Type: **Car Park Accumulation**
 Site No: **CP-1**
 Location: **Cheetham Hill Retail Park**
 Date: **06 May 2017, Saturday**



The summary below excludes 2-wheelers.

Available bays =	343
Vehicles in at start =	33
Vehicles in at end =	11
Peak accumulation =	173

Time Period Starting	Total Vehicles In	Total Vehicles Out	Car Park Acc	Utilisation
09:00	8	6	35	10%
09:15	23	11	47	14%
09:30	22	14	55	16%
09:45	23	19	59	17%
10:00	20	13	66	19%
10:15	32	18	80	23%
10:30	24	21	83	24%
10:45	35	36	82	24%
11:00	50	30	102	30%
11:15	56	53	105	31%
11:30	46	36	115	34%
11:45	51	45	121	35%
12:00	49	46	124	36%
12:15	66	46	144	42%
12:30	62	51	155	45%
12:45	54	60	149	43%
13:00	60	53	156	45%
13:15	62	59	159	46%
13:30	56	62	153	45%
13:45	69	49	173	50%
14:00	66	71	168	49%
14:15	54	51	171	50%
14:30	57	66	162	47%
14:45	56	76	142	41%
15:00	80	56	166	48%
15:15	74	68	172	50%
15:30	66	74	164	48%
15:45	77	72	169	49%
16:00	62	83	148	43%
16:15	60	69	139	41%
16:30	55	60	134	39%
16:45	46	54	126	37%
17:00	45	47	124	36%
17:15	40	66	98	29%
17:30	34	45	87	25%
17:45	22	50	59	17%
18:00	18	50	27	8%
18:15	18	22	23	7%
18:30	13	16	20	6%
18:45	4	13	11	3%
Total	1815	1837		

Half-Hour Summary

Time Period Starting	Total Vehicles In	Total Vehicles Out	Car Park Acc
09:00	31	17	47
09:30	45	33	59
10:00	52	31	80
10:30	59	57	82
11:00	106	83	105
11:30	97	81	121
12:00	115	92	144
12:30	116	111	149
13:00	122	112	159
13:30	125	111	173
14:00	120	122	171
14:30	113	142	142
15:00	154	124	172
15:30	143	146	169
16:00	122	152	139
16:30	101	114	126
17:00	85	113	98
17:30	56	95	59
18:00	36	72	23
18:30	17	29	11
Tot	1815	1837	

Hourly Summary

Time Period Starting	Total Vehicles In	Total Vehicles Out	Car Park Acc
09:00	76	50	59
10:00	111	88	82
11:00	203	164	121
12:00	231	203	149
13:00	247	223	173
14:00	233	264	142
15:00	297	270	169
16:00	223	266	126
17:00	141	208	59
18:00	53	101	11
Tot	1815	1837	

Project Number: **TSP13177**
 Project Name: **Cheetham Hill Road, Manchester**
 Survey Type: **Car Park Accumulation**
 Site No: **CP-2**
 Location: **Manchester Fort Retail Park**
 Date: **04 May 2017, Thursday**



The summary below excludes 2-wheelers.

Available bays =	1400
Vehicles in at start =	99
Vehicles in at end =	238
Peak accumulation =	763

Time Period Starting	Total Vehicles In	Total Vehicles Out	Car Park Acc	Utilisation
08:00	47	39	107	8%
08:15	37	35	109	8%
08:30	49	33	125	9%
08:45	54	40	139	10%
09:00	93	38	194	14%
09:15	118	66	246	18%
09:30	136	76	306	22%
09:45	144	95	355	25%
10:00	136	91	400	29%
10:15	180	124	456	33%
10:30	172	134	494	35%
10:45	167	161	500	36%
11:00	183	127	556	40%
11:15	223	189	590	42%
11:30	183	160	613	44%
11:45	205	175	643	46%
12:00	227	179	691	49%
12:15	249	197	743	53%
12:30	231	229	745	53%
12:45	232	214	763	55%
13:00	226	241	748	53%
13:15	222	229	741	53%
13:30	215	213	743	53%
13:45	194	239	698	50%
14:00	221	200	719	51%
14:15	193	220	692	49%
14:30	160	217	635	45%
14:45	171	210	596	43%
15:00	140	221	515	37%
15:15	161	206	470	34%
15:30	170	161	479	34%
15:45	180	160	499	36%
16:00	143	173	469	34%
16:15	158	166	461	33%
16:30	150	148	463	33%
16:45	146	149	460	33%
17:00	170	162	468	33%
17:15	174	172	470	34%
17:30	184	161	493	35%
17:45	169	150	512	37%
18:00	162	151	523	37%
18:15	157	164	516	37%
18:30	165	197	484	35%
18:45	161	172	473	34%
19:00	156	173	456	33%
19:15	125	159	422	30%
19:30	102	170	354	25%
19:45	59	175	238	17%
Total	7700	7561		

Half-Hour Summary

Time Period Starting	Total Vehicles In	Total Vehicles Out	Car Park Acc
08:00	84	74	109
08:30	103	73	139
09:00	211	104	246
09:30	280	171	355
10:00	316	215	456
10:30	339	295	500
11:00	406	316	590
11:30	388	335	643
12:00	476	376	743
12:30	463	443	763
13:00	448	470	741
13:30	409	452	698
14:00	414	420	692
14:30	331	427	596
15:00	301	427	470
15:30	350	321	499
16:00	301	339	461
16:30	296	297	460
17:00	344	334	470
17:30	353	311	512
18:00	319	315	516
18:30	326	369	473
19:00	281	332	422
19:30	161	345	238
Tot	7700	7561	

Hourly Summary

Time Period Starting	Total Vehicles In	Total Vehicles Out	Car Park Acc
08:00	187	147	139
09:00	491	275	355
10:00	655	510	500
11:00	794	651	643
12:00	939	819	763
13:00	857	922	698
14:00	745	847	596
15:00	651	748	499
16:00	597	636	460
17:00	697	645	512
18:00	645	684	473
19:00	442	677	238
Tot	7700	7561	

Project Number: **TSP13177**
 Project Name: **Cheetham Hill Road, Manchester**
 Survey Type: **Car Park Accumulation**
 Site No: **CP-2**
 Location: **Manchester Fort Retail Park**
 Date: **06 May 2017, Saturday**



The summary below excludes 2-wheelers.

Available bays =	1400
Vehicles in at start =	169
Vehicles in at end =	213
Peak accumulation =	1014

Time Period Starting	Total Vehicles In	Total Vehicles Out	Car Park Acc	Utilisation
09:00	85	50	204	15%
09:15	98	74	228	16%
09:30	119	58	289	21%
09:45	139	89	339	24%
10:00	163	101	401	29%
10:15	184	121	464	33%
10:30	182	136	510	36%
10:45	190	162	538	38%
11:00	202	147	593	42%
11:15	216	182	627	45%
11:30	210	195	642	46%
11:45	213	174	681	49%
12:00	252	176	757	54%
12:15	246	214	789	56%
12:30	230	241	778	56%
12:45	233	212	799	57%
13:00	239	228	810	58%
13:15	254	226	838	60%
13:30	295	215	918	66%
13:45	276	254	940	67%
14:00	267	235	972	69%
14:15	241	265	948	68%
14:30	284	253	979	70%
14:45	238	257	960	69%
15:00	258	249	969	69%
15:15	249	245	973	70%
15:30	285	244	1014	72%
15:45	247	278	983	70%
16:00	245	275	953	68%
16:15	209	259	903	65%
16:30	237	272	868	62%
16:45	197	315	750	54%
17:00	204	232	722	52%
17:15	188	260	650	46%
17:30	154	237	567	41%
17:45	129	223	473	34%
18:00	122	215	380	27%
18:15	92	175	297	21%
18:30	93	138	252	18%
18:45	73	112	213	15%
Total	8038	7994		

Half-Hour Summary

Time Period Starting	Total Vehicles In	Total Vehicles Out	Car Park Acc
09:00	183	124	228
09:30	258	147	339
10:00	347	222	464
10:30	372	298	538
11:00	418	329	627
11:30	423	369	681
12:00	498	390	789
12:30	463	453	799
13:00	493	454	838
13:30	571	469	940
14:00	508	500	948
14:30	522	510	960
15:00	507	494	973
15:30	532	522	983
16:00	454	534	903
16:30	434	587	750
17:00	392	492	650
17:30	283	460	473
18:00	214	390	297
18:30	166	250	213
Tot	8038	7994	

Hourly Summary

Time Period Starting	Total Vehicles In	Total Vehicles Out	Car Park Acc
09:00	441	271	339
10:00	719	520	538
11:00	841	698	681
12:00	961	843	799
13:00	1064	923	940
14:00	1030	1010	960
15:00	1039	1016	983
16:00	888	1121	750
17:00	675	952	473
18:00	380	640	213
Tot	8038	7994	

Appendix C Trip Generation Technical Note

Technical Note 3 – Cheetham Hill Trip Generation



Project:	Sports Direct - Cheetham Hill	Job No:	60323172
Subject:	Trip Generation		
Prepared by:	Karen Macklin	Date:	16/08/18
Approved by:	Harriet Burrows	Date:	

1.1. Introduction

This Technical Note outlines the trip generation which is considered to be likely as a result of the proposals at Cheetham Hill Retail Park to increase the Gross Floor Area (GFA) from 96,645 sqft (8,979 sqm) to 146,132 sqft (13,577 sqm) dividing, and increasing, the four existing retail units to five units and including 2 mezzanine floors.

It is proposed that the five retail units will include a food retail unit of 1,922 sqm and additional non-food retail units of 11,665sqm as detailed below;

- Unit 1 with mezzanine – Non Food Retail (GFA 3,948sqm);
- Unit 2 – Lidl Food Store (GFA 1,922sqm);
- Unit 3 with mezzanine – Non Food Retail (GFA 3,146sqm);
- Unit 4 – Non Food Retail (GFA 2,019sqm);
- Unit 5 – Non Food Retail (GFA 2,542sqm);

This Technical Note encompasses comments received from Manchester County Council (MCC) and the Highways Forecasting and Analytical Services team (HFAS) dated 12th May 2017.

1.2. Trip Generation

To estimate the number of trips associated with the proposed development, the TRICS database (v7.4.1 & 7.5.2) has been interrogated to derive weekday AM (08:00-09:00), PM (17:00-18:00) and Saturday (15:00-16:00) peak hour vehicle trip rates for sites of a similar size and nature to the development proposals. Sites have been selected based on TRICS land use category 'Retail Park – excluding Food' and Discount Food Store' for geographical areas excluding London.

Using 96,645 sqft (8,979 sqm) as the existing retail use, and 146,132 sqft (13,577 sqm), the trip rates for the site have been determined. Full outputs from TRICS are contained within **Appendix A** of this Technical Note whilst the vehicle trip rates and resultant trip generation are summarised in Table 1 below.

Technical Note 1 (Rev B) – Cheetham Hill Trip Generation



Table 1 – TRICS People Trip Rates and People Trip Generation

Land Use Category	People Trips	AM Peak (08:00-09:00)		PM Peak (17.00-18.00)		Saturday (15:00-16:00)	
		Arrivals	Departures	Arrivals	Departures	Arrivals	Departures
Retail Park – excl. Food Existing (8,979sqm)	People Trip Rate (per 100m ²)	0.955	0.679	0.449	0.483	4.866	5.523
	People Trip Generation	86	61	40	43	437	496
Retail Park – excl. Food Proposed (11,655sqm)	People Trip Rate (per 100m ²)	0.955	0.679	0.449	0.483	4.866	5.523
	People Trip Generation	111	79	52	56	567	644
Discount Food Store (1,922sqm)	People Trip Rate (per 100m ²)	3.925	2.675	7.228	7.644	10.941	11.724
	People Trip Generation	75	51	139	147	210	225
Total Proposed	People Trip Generation	186	130	191	203	777	867
Retail Park Difference		+25	+18	+12	+13	+130	+148

1.3. Modal Split

In order to determine the mode split, 2011 Census Method of Travel to Work data for the Manchester area has been applied to the person trip generation as shown below in **Table 2**.

Table 2 – Manchester 2011 Census Derived Mode Split

Mode	Percentage Mode Split
Car Driver	47%
Car Passenger	5%
Bus, Minibus or Coach	23%
Train	3%
Bicycle	4%
Motorcycle	0%
On Foot	15%
Other	3%
Total	100%

This mode split has been applied to the additional person trip generation set out in **Table 1** to determine the number of additional vehicle trips associated with the proposals at Cheetham Hill. The vehicle trip generation is set out in **Table 3** below.

Technical Note 1 (Rev B) – Cheetham Hill Trip Generation



Table 3 – Vehicle Trip Generation

Total Vehicle Trips	AM Peak (08:00-09:00)		PM Peak (17.00-18.00)		Saturday (15:00-16:00)	
	Arrivals	Departures	Arrivals	Departures	Arrivals	Departures
Retail Park – excl. Food Additional People Trips	25	18	12	13	130	148
Retail Park – excl. Food Additional Vehicle Trips	12	8	6	6	61	70
Discount Food Store Vehicle Trips	35	24	65	69	99	106
Total Proposed Additional Vehicle Trips	47	32	71	75	160	175

Therefore, it is shown that during the weekday AM peak hour, it is expected that there will be 79 two-way trips made to the proposed development, and 146 two-way trips during the weekday PM peak hour. During the Saturday peak hour, there will be 335 two-way trips made to the site.

1.4. New Trips

Research has shown (TRICS Research Report 95/2) that for a food retail unit the trips associated with that facility on the highway network are comprised as follows:

- New Trips 10%
- Pass by Trips 20%
- Diverted Trips 35%
- Transferred Trips 35%

In addition, TRICS Research Report 14/1 considers that a large number of trips on the highway network associated with a retail development are already secondary trips and that proportion is in the order of 57-67% thus indicating that between 33-43% are primary (new) trips on the network attributable to a retail development. However, in terms of providing a wholly robust assessment and following discussion with MCC/HFAS, we have considered that there would be 50% of trips which may be new to the highway network for both the Retail Park, excluding Food, and the Discount Food Store.

We therefore consider that the following trip generation would be appropriate to be considered at this stage:

Table 4 – New Trips Vehicle Trip Generation

Land Use Category	AM Peak (08:00-09:00)		PM Peak (17.00-18.00)		Saturday (15:00-16:00)	
	Arrivals	Departures	Arrivals	Departures	Arrivals	Departures
Retail Park – excl. Food & Discount Food Store						
Proposed Vehicle Trips	47	32	71	75	160	175
New Trips (50%)	24	16	35	38	80	88

It can be seen that trips identified as potential additional trips on the highway network as a result of the development proposals equate to 40 additional two-way vehicles during the weekday AM peak hour and 73 additional two-way vehicles during the weekday PM peak hour. During the Saturday peak hour, it is considered that there would potentially be a maximum of 168 additional two-way vehicle trips on the network.

Appendix A: TRICS

Appendix D TRICS Data

Calculation Reference: AUDIT-204609-170503-0547

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
Category : K - RETAIL PARK - EXCLUDING FOOD
MULTI-MODAL VEHICLES

Selected regions and areas:

03 SOUTH WEST
GS GLOUCESTERSHIRE 1 days

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

Secondary Filtering selection:

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

Parameter: Gross floor area
Actual Range: 8687 to 8687 (units: sqm)
Range Selected by User: 2575 to 16618 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 14/05/05 to 07/06/14

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

Selected survey days:

Thursday 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 undertaken using machines.

Selected Locations:

Suburban Area (PPS6 Out of 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:

No Sub Category 1

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

Secondary Filtering selection:

Use Class:

A1 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®.

Secondary Filtering selection (Cont.):

Population within 1 mile:

10,001 to 15,000 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

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

Car ownership within 5 miles:

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 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.

PTAL Rating:

No PTAL Present 1 days

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

LIST OF SITES relevant to selection parameters

1	GS-01-K-02	RETAIL PARK	GLOUCESTERSHIRE
	EASTERN AVENUE		
	BARNWOOD		
	GLOUCESTER		
	Suburban Area (PPS6 Out of Centre)		
	No Sub Category		
	Total Gross floor area:	8687	sqm
	Survey date: THURSDAY	28/11/13	Survey Type: MANUAL

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

TRIP RATE for Land Use 01 - RETAIL/K - RETAIL PARK - EXCLUDING FOOD

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	1	8687	0.161	1	8687	0.115	1	8687	0.276
08:00 - 09:00	1	8687	0.955	1	8687	0.679	1	8687	1.634
09:00 - 10:00	1	8687	1.186	1	8687	0.967	1	8687	2.153
10:00 - 11:00	1	8687	1.186	1	8687	1.001	1	8687	2.187
11:00 - 12:00	1	8687	1.071	1	8687	0.978	1	8687	2.049
12:00 - 13:00	1	8687	0.840	1	8687	0.806	1	8687	1.646
13:00 - 14:00	1	8687	0.633	1	8687	0.483	1	8687	1.116
14:00 - 15:00	1	8687	0.587	1	8687	0.587	1	8687	1.174
15:00 - 16:00	1	8687	1.761	1	8687	1.830	1	8687	3.591
16:00 - 17:00	1	8687	1.865	1	8687	1.991	1	8687	3.856
17:00 - 18:00	1	8687	0.449	1	8687	0.483	1	8687	0.932
18:00 - 19:00	1	8687	0.230	1	8687	0.437	1	8687	0.667
19:00 - 20:00	1	8687	0.219	1	8687	0.265	1	8687	0.484
20:00 - 21:00	1	8687	0.012	1	8687	0.035	1	8687	0.047
21:00 - 22:00	1	8687	0.000	1	8687	0.000	1	8687	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			11.155			10.657			21.812

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:	8687 - 8687 (units: sqm)
Survey date range:	14/05/05 - 07/06/14
Number of weekdays (Monday-Friday):	1
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

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

Calculation Reference: AUDIT-203601-170508-0505

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
 Category : K - RETAIL PARK - EXCLUDING FOOD
MULTI-MODAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	EX ESSEX	1 days
06	WEST MIDLANDS	
	WM WEST MIDLANDS	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NE NORTH EAST LINCOLNSHIRE	1 days
	NY NORTH YORKSHIRE	1 days
09	NORTH	
	CB CUMBRIA	1 days

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

Secondary Filtering selection:

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

Parameter: Gross floor area
 Actual Range: 2800 to 13195 (units: sqm)
 Range Selected by User: 2575 to 16000 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/09 to 07/06/14

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

Selected survey days:

Saturday 5 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 undertaken using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	1
Edge of Town	3
Neighbourhood Centre (PPS6 Local 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:

Industrial Zone	1
Residential Zone	1
Built-Up Zone	2
No Sub Category	1

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

Secondary Filtering 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:

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

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

Population within 5 miles:

5,000 or Less	1 days
50,001 to 75,000	1 days
125,001 to 250,000	2 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	3 days
1.6 to 2.0	1 days

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

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.

PTAL Rating:

No PTAL Present 5 days

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

LIST OF SITES relevant to selection parameters

1	CB-01-K-01	HOMEbase/PC WORLD	CUMBRIA
	PARKHOUSE ROAD		
	KINGSTOWN		
	CARLISLE		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	9225 sqm	
	Survey date: SATURDAY	06/02/10	Survey Type: MANUAL
2	EX-01-K-02	RETAIL PARK	ESSEX
	CHELMER ROAD		
	CHELMER VILLAGE		
	CHELMSFORD		
	Edge of Town		
	Residential Zone		
	Total Gross floor area:	16150 sqm	
	Survey date: SATURDAY	19/10/13	Survey Type: MANUAL
3	NE-01-K-01	RETAIL PARK	NORTH EAST LINCOLNSHIRE
	VICTORIA STREET NORTH		
	GRIMSBY		
	Suburban Area (PPS6 Out of Centre)		
	Built-Up Zone		
	Total Gross floor area:	4243 sqm	
	Survey date: SATURDAY	07/06/14	Survey Type: MANUAL
4	NY-01-K-03	RETAIL PARK	NORTH YORKSHIRE
	SEAMER ROAD		
	SCARBOROUGH		
	Edge of Town		
	No Sub Category		
	Total Gross floor area:	2800 sqm	
	Survey date: SATURDAY	19/09/09	Survey Type: MANUAL
5	WM-01-K-05	RETAIL PARK	WEST MIDLANDS
	HARBORNE LANE		
	SELLY OAK		
	BIRMINGHAM		
	Neighbourhood Centre (PPS6 Local Centre)		
	Built-Up Zone		
	Total Gross floor area:	11599 sqm	
	Survey date: SATURDAY	10/11/12	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 01 - RETAIL/K - RETAIL PARK - EXCLUDING FOOD

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	3	8407	0.333	3	8407	0.048	3	8407	0.381
08:00 - 09:00	5	8212	0.850	5	8212	0.261	5	8212	1.111
09:00 - 10:00	5	8212	2.494	5	8212	1.471	5	8212	3.965
10:00 - 11:00	5	8212	4.406	5	8212	3.198	5	8212	7.604
11:00 - 12:00	5	8212	5.367	5	8212	4.693	5	8212	10.060
12:00 - 13:00	5	8212	5.708	5	8212	5.338	5	8212	11.046
13:00 - 14:00	5	8212	6.130	5	8212	5.774	5	8212	11.904
14:00 - 15:00	5	8212	6.091	5	8212	5.801	5	8212	11.892
15:00 - 16:00	5	8212	4.866	5	8212	5.523	5	8212	10.389
16:00 - 17:00	5	8212	4.496	5	8212	5.292	5	8212	9.788
17:00 - 18:00	5	8212	3.685	5	8212	5.187	5	8212	8.872
18:00 - 19:00	5	8212	0.972	5	8212	2.121	5	8212	3.093
19:00 - 20:00	3	11340	0.338	3	11340	0.782	3	11340	1.120
20:00 - 21:00	1	9225	0.000	1	9225	0.000	1	9225	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		45.736			45.489			91.225	

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: 2800 - 13195 (units: sqm)
 Survey date range: 01/01/09 - 07/06/14
 Number of weekdays (Monday-Friday): 0
 Number of Saturdays: 5
 Number of Sundays: 0
 Surveys automatically removed from selection: 0
 Surveys manually removed from selection: 0

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

Calculation Reference: AUDIT-204609-170503-0509

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

06 WEST MIDLANDS
WM WEST MIDLANDS 1 days

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

Secondary Filtering selection:

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

Parameter: Gross floor area
Actual Range: 250 to 250 (units: sqm)
Range Selected by User: 250 to 250 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 25/11/08 to 25/11/08

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 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 undertaken using machines.

Selected Locations:

Suburban Area (PPS6 Out of 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:

No Sub Category 1

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

Secondary Filtering selection:

Use Class:

A3 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®.

Secondary Filtering selection (Cont.):

Population within 1 mile:

20,001 to 25,000

1 days

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

Population within 5 miles:

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

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

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.

PTAL Rating:

No PTAL Present

1 days

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

LIST OF SITES relevant to selection parameters

1	WM-06-D-01	BURGER KING	WEST MIDLANDS
	KINGSBURY ROAD		
	ERDINGTON		
	BIRMINGHAM		
	Suburban Area (PPS6 Out of Centre)		
	No Sub Category		
	Total Gross floor area:	250 sqm	
	Survey date: TUESDAY	25/11/08	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 06 - HOTEL, FOOD & DRINK/D - FAST FOOD - DRIVE THROUGH

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00	1	250	0.800	1	250	0.800	1	250	1.600
10:00 - 11:00	1	250	4.400	1	250	3.600	1	250	8.000
11:00 - 12:00	1	250	5.200	1	250	2.800	1	250	8.000
12:00 - 13:00	1	250	11.600	1	250	13.200	1	250	24.800
13:00 - 14:00	1	250	18.800	1	250	14.800	1	250	33.600
14:00 - 15:00	1	250	4.000	1	250	7.200	1	250	11.200
15:00 - 16:00	1	250	4.800	1	250	3.600	1	250	8.400
16:00 - 17:00	1	250	3.600	1	250	4.000	1	250	7.600
17:00 - 18:00	1	250	2.800	1	250	3.600	1	250	6.400
18:00 - 19:00	1	250	6.000	1	250	4.400	1	250	10.400
19:00 - 20:00	1	250	8.000	1	250	8.000	1	250	16.000
20:00 - 21:00	1	250	3.200	1	250	4.800	1	250	8.000
21:00 - 22:00	1	250	0.000	1	250	2.800	1	250	2.800
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			73.200			73.600			146.800

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: 250 - 250 (units: sqm)
 Survey date range: 25/11/08 - 25/11/08
 Number of weekdays (Monday-Friday): 1
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 0
 Surveys manually removed from selection: 0

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

Calculation Reference: AUDIT-204609-180816-0850

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
 Category : C - DISCOUNT FOOD STORES
 MULTI-MODAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	KC KENT	1 days
03	SOUTH WEST	
	SM SOMERSET	1 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
05	EAST MIDLANDS	
	LN LINCOLNSHIRE	1 days
	NR NORTHAMPTONSHIRE	1 days
	NT NOTTINGHAMSHIRE	1 days
06	WEST MIDLANDS	
	WM WEST MIDLANDS	2 days
	WO WORCESTERSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	1 days
09	NORTH	
	DH DURHAM	1 days
	NB NORTHUMBERLAND	1 days
10	WALES	
	CF CARDIFF	1 days
11	SCOTLAND	
	HI HIGHLAND	1 days
	PK PERTH & KINROSS	1 days
	SR STIRLING	1 days

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

Secondary Filtering selection:

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

Parameter: Gross floor area
 Actual Range: 750 to 2624 (units: sqm)
 Range Selected by User: 750 to 2635 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 28/10/17

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

Selected survey days:

Monday	1 days
Tuesday	8 days
Wednesday	1 days
Thursday	4 days
Friday	2 days

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

Selected survey types:

Manual count	16 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town Centre	8
Suburban Area (PPS6 Out of Centre)	1
Edge of Town	5
Neighbourhood Centre (PPS6 Local Centre)	2

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

Selected Location Sub Categories:

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

Secondary Filtering selection:

Use Class:

A1 16 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
5,001 to 10,000	5 days
10,001 to 15,000	3 days
15,001 to 20,000	1 days
20,001 to 25,000	2 days
25,001 to 50,000	3 days
50,001 to 100,000	1 days

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

Population within 5 miles:

5,001 to 25,000	3 days
25,001 to 50,000	2 days
50,001 to 75,000	2 days
75,001 to 100,000	3 days
125,001 to 250,000	2 days
250,001 to 500,000	2 days
500,001 or More	2 days

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

Car ownership within 5 miles:

0.6 to 1.0	5 days
1.1 to 1.5	11 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	16 days

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

Travel Plan:

Not Known	1 days
Yes	3 days
No	12 days

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

PTAL Rating:

No PTAL Present	16 days
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This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	CA-01-C-01	LIDL		CAMBRIDGESHIRE
	CROMWELL ROAD			
	WISBECH			
	Edge of Town			
	Retail Zone			
	Total Gross floor area:	750 sqm		
	Survey date: FRIDAY	21/10/16		Survey Type: MANUAL
2	CF-01-C-01	LIDL		CARDIFF
	EAST TYNDALL STREET			
	CARDIFF			
	Suburban Area (PPS6 Out of Centre)			
	Development Zone			
	Total Gross floor area:	2568 sqm		
	Survey date: THURSDAY	29/06/17		Survey Type: MANUAL
3	DH-01-C-01	ALDI		DURHAM
	WATLING ROAD			
	BISHOP AUCKLAND			
	Edge of Town			
	Retail Zone			
	Total Gross floor area:	1023 sqm		
	Survey date: THURSDAY	06/04/17		Survey Type: MANUAL
4	HI-01-C-02	LIDL		HIGHLAND
	CAMANACHD CRESCENT			
	FORT WILLIAM			
	Edge of Town Centre			
	Retail Zone			
	Total Gross floor area:	1300 sqm		
	Survey date: TUESDAY	17/06/14		Survey Type: MANUAL
5	KC-01-C-02	ALDI		KENT
	WELL ROAD			
	MAIDSTONE			
	Edge of Town Centre			
	Built-Up Zone			
	Total Gross floor area:	1407 sqm		
	Survey date: TUESDAY	27/11/12		Survey Type: MANUAL
6	LN-01-C-01	LIDL		LINCOLNSHIRE
	RICHMOND DRIVE			
	SKEGNESS			
	Edge of Town Centre			
	Built-Up Zone			
	Total Gross floor area:	2398 sqm		
	Survey date: TUESDAY	19/07/16		Survey Type: MANUAL
7	NB-01-C-01	LIDL		NORTHUMBERLAND
	SCHALKSMUHLE ROAD			
	BEDLINGTON			
	Edge of Town Centre			
	No Sub Category			
	Total Gross floor area:	2450 sqm		
	Survey date: MONDAY	12/06/17		Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8	NR-01-C-02 NEWTON ROAD RUSHDEN	LIDL		NORTHAMPTONSHIRE
	Edge of Town Centre Residential Zone Total Gross floor area:		2624 sqm	
	Survey date: TUESDAY		19/07/16	Survey Type: MANUAL
9	NT-01-C-01 CHAPEL LANE BINGHAM	LIDL		NOTTINGHAMSHIRE
	Edge of Town Industrial Zone Total Gross floor area:		2440 sqm	
	Survey date: FRIDAY		15/07/16	Survey Type: MANUAL
10	NY-01-C-02 STATION ROAD THIRSK	LIDL		NORTH YORKSHIRE
	Edge of Town Centre No Sub Category Total Gross floor area:		1527 sqm	
	Survey date: TUESDAY		11/10/11	Survey Type: MANUAL
11	PK-01-C-02 GLASGOW ROAD PERTH	ALDI		PERTH & KINROSS
	Edge of Town Centre Built-Up Zone Total Gross floor area:		1450 sqm	
	Survey date: TUESDAY		17/06/14	Survey Type: MANUAL
12	SM-01-C-01 SEAWARD WAY MINEHEAD	LIDL		SOMERSET
	Edge of Town No Sub Category Total Gross floor area:		2247 sqm	
	Survey date: THURSDAY		22/06/17	Survey Type: MANUAL
13	SR-01-C-01 PLAYERS ROAD STIRLING	LIDL		STIRLING
	Edge of Town Centre Built-Up Zone Total Gross floor area:		2442 sqm	
	Survey date: THURSDAY		01/06/17	Survey Type: MANUAL
14	WM-01-C-01 MACKADOWN LANE BIRMINGHAM KITT'S GREEN Neighbourhood Centre (PPS6 Local Centre) No Sub Category Total Gross floor area:	LIDL		WEST MIDLANDS
	Survey date: TUESDAY		12/07/16	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

15	WM-01-C-02	LIDL	WEST MIDLANDS
	HIGH STREET		
	WEST BROMWICH		
	GUNS VILLAGE		
	Neighbourhood Centre (PPS6 Local Centre)		
	High Street		
	Total Gross floor area:	2085 sqm	
	Survey date: TUESDAY	12/07/16	Survey Type: MANUAL
16	WO-01-C-01	LIDL	WORCESTERSHIRE
	BLACKPOLE ROAD		
	WORCESTER		
	BRICKFIELDS		
	Edge of Town		
	Retail Zone		
	Total Gross floor area:	2417 sqm	
	Survey date: WEDNESDAY	13/07/16	Survey Type: MANUAL

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.

AECOM 2 City Walk Leeds

Licence No: 204609

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

MULTI-MODAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	2511	0.159	2	2511	0.040	2	2511	0.199
07:00 - 08:00	15	1979	0.337	15	1979	0.131	15	1979	0.468
08:00 - 09:00	16	1951	2.239	16	1951	1.496	16	1951	3.735
09:00 - 10:00	16	1951	3.146	16	1951	2.592	16	1951	5.738
10:00 - 11:00	16	1951	3.630	16	1951	3.217	16	1951	6.847
11:00 - 12:00	16	1951	3.915	16	1951	3.793	16	1951	7.708
12:00 - 13:00	16	1951	3.771	16	1951	3.813	16	1951	7.584
13:00 - 14:00	16	1951	3.825	16	1951	4.130	16	1951	7.955
14:00 - 15:00	16	1951	4.274	16	1951	4.066	16	1951	8.340
15:00 - 16:00	16	1951	4.232	16	1951	4.287	16	1951	8.519
16:00 - 17:00	16	1951	4.059	16	1951	4.251	16	1951	8.310
17:00 - 18:00	16	1951	3.864	16	1951	4.059	16	1951	7.923
18:00 - 19:00	16	1951	3.290	16	1951	3.566	16	1951	6.856
19:00 - 20:00	16	1951	2.406	16	1951	2.787	16	1951	5.193
20:00 - 21:00	15	1994	1.504	15	1994	1.939	15	1994	3.443
21:00 - 22:00	14	2028	0.581	14	2028	0.976	14	2028	1.557
22:00 - 23:00	12	2127	0.031	12	2127	0.223	12	2127	0.254
23:00 - 24:00									
Total Rates:			45.263			45.366			90.629

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

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

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Parameter summary

Trip rate parameter range selected:	750 - 2624 (units: sqm)
Survey date date range:	01/01/10 - 28/10/17
Number of weekdays (Monday-Friday):	16
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

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

AECOM 2 City Walk Leeds

Licence No: 204609

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

MULTI-MODAL TAXIS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	2511	0.000	2	2511	0.000	2	2511	0.000
07:00 - 08:00	15	1979	0.000	15	1979	0.000	15	1979	0.000
08:00 - 09:00	16	1951	0.010	16	1951	0.006	16	1951	0.016
09:00 - 10:00	16	1951	0.032	16	1951	0.026	16	1951	0.058
10:00 - 11:00	16	1951	0.029	16	1951	0.022	16	1951	0.051
11:00 - 12:00	16	1951	0.016	16	1951	0.026	16	1951	0.042
12:00 - 13:00	16	1951	0.035	16	1951	0.038	16	1951	0.073
13:00 - 14:00	16	1951	0.042	16	1951	0.042	16	1951	0.084
14:00 - 15:00	16	1951	0.029	16	1951	0.029	16	1951	0.058
15:00 - 16:00	16	1951	0.019	16	1951	0.016	16	1951	0.035
16:00 - 17:00	16	1951	0.022	16	1951	0.013	16	1951	0.035
17:00 - 18:00	16	1951	0.038	16	1951	0.038	16	1951	0.076
18:00 - 19:00	16	1951	0.035	16	1951	0.048	16	1951	0.083
19:00 - 20:00	16	1951	0.013	16	1951	0.016	16	1951	0.029
20:00 - 21:00	15	1994	0.020	15	1994	0.013	15	1994	0.033
21:00 - 22:00	14	2028	0.014	14	2028	0.018	14	2028	0.032
22:00 - 23:00	12	2127	0.000	12	2127	0.000	12	2127	0.000
23:00 - 24:00									
Total Rates:			0.354			0.351			0.705

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.

AECOM 2 City Walk Leeds

Licence No: 204609

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

MULTI-MODAL OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	2511	0.020	2	2511	0.000	2	2511	0.020
07:00 - 08:00	15	1979	0.003	15	1979	0.007	15	1979	0.010
08:00 - 09:00	16	1951	0.006	16	1951	0.013	16	1951	0.019
09:00 - 10:00	16	1951	0.035	16	1951	0.022	16	1951	0.057
10:00 - 11:00	16	1951	0.013	16	1951	0.022	16	1951	0.035
11:00 - 12:00	16	1951	0.016	16	1951	0.013	16	1951	0.029
12:00 - 13:00	16	1951	0.010	16	1951	0.013	16	1951	0.023
13:00 - 14:00	16	1951	0.019	16	1951	0.022	16	1951	0.041
14:00 - 15:00	16	1951	0.010	16	1951	0.016	16	1951	0.026
15:00 - 16:00	16	1951	0.010	16	1951	0.000	16	1951	0.010
16:00 - 17:00	16	1951	0.010	16	1951	0.019	16	1951	0.029
17:00 - 18:00	16	1951	0.013	16	1951	0.003	16	1951	0.016
18:00 - 19:00	16	1951	0.016	16	1951	0.010	16	1951	0.026
19:00 - 20:00	16	1951	0.013	16	1951	0.013	16	1951	0.026
20:00 - 21:00	15	1994	0.007	15	1994	0.010	15	1994	0.017
21:00 - 22:00	14	2028	0.000	14	2028	0.007	14	2028	0.007
22:00 - 23:00	12	2127	0.000	12	2127	0.004	12	2127	0.004
23:00 - 24:00									
Total Rates:			0.201			0.194			0.395

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.

AECOM 2 City Walk Leeds

Licence No: 204609

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

MULTI-MODAL PSVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	2511	0.000	2	2511	0.000	2	2511	0.000
07:00 - 08:00	15	1979	0.003	15	1979	0.000	15	1979	0.003
08:00 - 09:00	16	1951	0.000	16	1951	0.003	16	1951	0.003
09:00 - 10:00	16	1951	0.003	16	1951	0.000	16	1951	0.003
10:00 - 11:00	16	1951	0.000	16	1951	0.000	16	1951	0.000
11:00 - 12:00	16	1951	0.000	16	1951	0.000	16	1951	0.000
12:00 - 13:00	16	1951	0.000	16	1951	0.000	16	1951	0.000
13:00 - 14:00	16	1951	0.000	16	1951	0.000	16	1951	0.000
14:00 - 15:00	16	1951	0.003	16	1951	0.006	16	1951	0.009
15:00 - 16:00	16	1951	0.000	16	1951	0.000	16	1951	0.000
16:00 - 17:00	16	1951	0.000	16	1951	0.000	16	1951	0.000
17:00 - 18:00	16	1951	0.000	16	1951	0.000	16	1951	0.000
18:00 - 19:00	16	1951	0.000	16	1951	0.000	16	1951	0.000
19:00 - 20:00	16	1951	0.000	16	1951	0.000	16	1951	0.000
20:00 - 21:00	15	1994	0.000	15	1994	0.000	15	1994	0.000
21:00 - 22:00	14	2028	0.000	14	2028	0.000	14	2028	0.000
22:00 - 23:00	12	2127	0.000	12	2127	0.000	12	2127	0.000
23:00 - 24:00									
Total Rates:			0.009			0.009			0.018

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

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

AECOM 2 City Walk Leeds

Licence No: 204609

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

MULTI-MODAL CYCLISTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	2511	0.020	2	2511	0.000	2	2511	0.020
07:00 - 08:00	15	1979	0.007	15	1979	0.003	15	1979	0.010
08:00 - 09:00	16	1951	0.067	16	1951	0.045	16	1951	0.112
09:00 - 10:00	16	1951	0.058	16	1951	0.035	16	1951	0.093
10:00 - 11:00	16	1951	0.058	16	1951	0.054	16	1951	0.112
11:00 - 12:00	16	1951	0.022	16	1951	0.051	16	1951	0.073
12:00 - 13:00	16	1951	0.048	16	1951	0.042	16	1951	0.090
13:00 - 14:00	16	1951	0.083	16	1951	0.070	16	1951	0.153
14:00 - 15:00	16	1951	0.074	16	1951	0.080	16	1951	0.154
15:00 - 16:00	16	1951	0.103	16	1951	0.074	16	1951	0.177
16:00 - 17:00	16	1951	0.080	16	1951	0.067	16	1951	0.147
17:00 - 18:00	16	1951	0.077	16	1951	0.119	16	1951	0.196
18:00 - 19:00	16	1951	0.077	16	1951	0.070	16	1951	0.147
19:00 - 20:00	16	1951	0.035	16	1951	0.051	16	1951	0.086
20:00 - 21:00	15	1994	0.047	15	1994	0.053	15	1994	0.100
21:00 - 22:00	14	2028	0.000	14	2028	0.018	14	2028	0.018
22:00 - 23:00	12	2127	0.000	12	2127	0.004	12	2127	0.004
23:00 - 24:00									
Total Rates:			0.856			0.836			1.692

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

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

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

MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	2511	0.159	2	2511	0.040	2	2511	0.199
07:00 - 08:00	15	1979	0.411	15	1979	0.145	15	1979	0.556
08:00 - 09:00	16	1951	2.903	16	1951	1.900	16	1951	4.803
09:00 - 10:00	16	1951	4.261	16	1951	3.457	16	1951	7.718
10:00 - 11:00	16	1951	5.213	16	1951	4.517	16	1951	9.730
11:00 - 12:00	16	1951	5.584	16	1951	5.411	16	1951	10.995
12:00 - 13:00	16	1951	5.386	16	1951	5.623	16	1951	11.009
13:00 - 14:00	16	1951	5.488	16	1951	5.860	16	1951	11.348
14:00 - 15:00	16	1951	6.199	16	1951	5.946	16	1951	12.145
15:00 - 16:00	16	1951	6.395	16	1951	6.324	16	1951	12.719
16:00 - 17:00	16	1951	5.882	16	1951	6.318	16	1951	12.200
17:00 - 18:00	16	1951	5.632	16	1951	6.052	16	1951	11.684
18:00 - 19:00	16	1951	4.963	16	1951	5.267	16	1951	10.230
19:00 - 20:00	16	1951	3.611	16	1951	4.117	16	1951	7.728
20:00 - 21:00	15	1994	2.203	15	1994	2.798	15	1994	5.001
21:00 - 22:00	14	2028	0.856	14	2028	1.367	14	2028	2.223
22:00 - 23:00	12	2127	0.039	12	2127	0.372	12	2127	0.411
23:00 - 24:00									
Total Rates:		65.185			65.514				130.699

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

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

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

MULTI-MODAL PEDESTRIANS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	2511	0.219	2	2511	0.020	2	2511	0.239
07:00 - 08:00	15	1979	0.155	15	1979	0.010	15	1979	0.165
08:00 - 09:00	16	1951	0.769	16	1951	0.622	16	1951	1.391
09:00 - 10:00	16	1951	0.955	16	1951	0.833	16	1951	1.788
10:00 - 11:00	16	1951	1.272	16	1951	1.125	16	1951	2.397
11:00 - 12:00	16	1951	1.362	16	1951	1.422	16	1951	2.784
12:00 - 13:00	16	1951	1.547	16	1951	1.493	16	1951	3.040
13:00 - 14:00	16	1951	1.333	16	1951	1.455	16	1951	2.788
14:00 - 15:00	16	1951	1.253	16	1951	1.198	16	1951	2.451
15:00 - 16:00	16	1951	1.342	16	1951	1.435	16	1951	2.777
16:00 - 17:00	16	1951	1.477	16	1951	1.269	16	1951	2.746
17:00 - 18:00	16	1951	1.397	16	1951	1.282	16	1951	2.679
18:00 - 19:00	16	1951	1.115	16	1951	1.109	16	1951	2.224
19:00 - 20:00	16	1951	0.538	16	1951	0.779	16	1951	1.317
20:00 - 21:00	15	1994	0.598	15	1994	0.712	15	1994	1.310
21:00 - 22:00	14	2028	0.250	14	2028	0.426	14	2028	0.676
22:00 - 23:00	12	2127	0.000	12	2127	0.094	12	2127	0.094
23:00 - 24:00									
Total Rates:		15.582			15.284				30.866

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.

AECOM 2 City Walk Leeds

Licence No: 204609

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

MULTI-MODAL BUS/TRAM PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	2511	0.100	2	2511	0.000	2	2511	0.100
07:00 - 08:00	15	1979	0.040	15	1979	0.020	15	1979	0.060
08:00 - 09:00	16	1951	0.163	16	1951	0.099	16	1951	0.262
09:00 - 10:00	16	1951	0.224	16	1951	0.160	16	1951	0.384
10:00 - 11:00	16	1951	0.269	16	1951	0.221	16	1951	0.490
11:00 - 12:00	16	1951	0.205	16	1951	0.215	16	1951	0.420
12:00 - 13:00	16	1951	0.183	16	1951	0.189	16	1951	0.372
13:00 - 14:00	16	1951	0.160	16	1951	0.211	16	1951	0.371
14:00 - 15:00	16	1951	0.199	16	1951	0.179	16	1951	0.378
15:00 - 16:00	16	1951	0.199	16	1951	0.163	16	1951	0.362
16:00 - 17:00	16	1951	0.189	16	1951	0.186	16	1951	0.375
17:00 - 18:00	16	1951	0.099	16	1951	0.183	16	1951	0.282
18:00 - 19:00	16	1951	0.099	16	1951	0.141	16	1951	0.240
19:00 - 20:00	16	1951	0.070	16	1951	0.090	16	1951	0.160
20:00 - 21:00	15	1994	0.067	15	1994	0.077	15	1994	0.144
21:00 - 22:00	14	2028	0.028	14	2028	0.060	14	2028	0.088
22:00 - 23:00	12	2127	0.000	12	2127	0.020	12	2127	0.020
23:00 - 24:00									
Total Rates:		2.294			2.214				4.508

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

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

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

MULTI-MODAL TOTAL RAIL PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	2511	0.000	2	2511	0.000	2	2511	0.000
07:00 - 08:00	15	1979	0.003	15	1979	0.000	15	1979	0.003
08:00 - 09:00	16	1951	0.022	16	1951	0.010	16	1951	0.032
09:00 - 10:00	16	1951	0.013	16	1951	0.013	16	1951	0.026
10:00 - 11:00	16	1951	0.016	16	1951	0.006	16	1951	0.022
11:00 - 12:00	16	1951	0.016	16	1951	0.006	16	1951	0.022
12:00 - 13:00	16	1951	0.003	16	1951	0.013	16	1951	0.016
13:00 - 14:00	16	1951	0.010	16	1951	0.006	16	1951	0.016
14:00 - 15:00	16	1951	0.003	16	1951	0.006	16	1951	0.009
15:00 - 16:00	16	1951	0.006	16	1951	0.010	16	1951	0.016
16:00 - 17:00	16	1951	0.016	16	1951	0.003	16	1951	0.019
17:00 - 18:00	16	1951	0.022	16	1951	0.010	16	1951	0.032
18:00 - 19:00	16	1951	0.016	16	1951	0.026	16	1951	0.042
19:00 - 20:00	16	1951	0.006	16	1951	0.013	16	1951	0.019
20:00 - 21:00	15	1994	0.003	15	1994	0.007	15	1994	0.010
21:00 - 22:00	14	2028	0.004	14	2028	0.007	14	2028	0.011
22:00 - 23:00	12	2127	0.000	12	2127	0.000	12	2127	0.000
23:00 - 24:00									
Total Rates:			0.159			0.136			0.295

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

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

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

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	2511	0.100	2	2511	0.000	2	2511	0.100
07:00 - 08:00	15	1979	0.044	15	1979	0.020	15	1979	0.064
08:00 - 09:00	16	1951	0.186	16	1951	0.109	16	1951	0.295
09:00 - 10:00	16	1951	0.237	16	1951	0.173	16	1951	0.410
10:00 - 11:00	16	1951	0.285	16	1951	0.227	16	1951	0.512
11:00 - 12:00	16	1951	0.221	16	1951	0.221	16	1951	0.442
12:00 - 13:00	16	1951	0.186	16	1951	0.202	16	1951	0.388
13:00 - 14:00	16	1951	0.170	16	1951	0.218	16	1951	0.388
14:00 - 15:00	16	1951	0.202	16	1951	0.186	16	1951	0.388
15:00 - 16:00	16	1951	0.205	16	1951	0.173	16	1951	0.378
16:00 - 17:00	16	1951	0.205	16	1951	0.189	16	1951	0.394
17:00 - 18:00	16	1951	0.122	16	1951	0.192	16	1951	0.314
18:00 - 19:00	16	1951	0.115	16	1951	0.167	16	1951	0.282
19:00 - 20:00	16	1951	0.077	16	1951	0.103	16	1951	0.180
20:00 - 21:00	15	1994	0.070	15	1994	0.084	15	1994	0.154
21:00 - 22:00	14	2028	0.032	14	2028	0.067	14	2028	0.099
22:00 - 23:00	12	2127	0.000	12	2127	0.020	12	2127	0.020
23:00 - 24:00									
Total Rates:		2.457			2.351				4.808

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.

AECOM 2 City Walk Leeds

Licence No: 204609

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

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	2511	0.498	2	2511	0.060	2	2511	0.558
07:00 - 08:00	15	1979	0.616	15	1979	0.179	15	1979	0.795
08:00 - 09:00	16	1951	3.925	16	1951	2.675	16	1951	6.600
09:00 - 10:00	16	1951	5.511	16	1951	4.498	16	1951	10.009
10:00 - 11:00	16	1951	6.827	16	1951	5.924	16	1951	12.751
11:00 - 12:00	16	1951	7.189	16	1951	7.106	16	1951	14.295
12:00 - 13:00	16	1951	7.167	16	1951	7.359	16	1951	14.526
13:00 - 14:00	16	1951	7.074	16	1951	7.603	16	1951	14.677
14:00 - 15:00	16	1951	7.728	16	1951	7.410	16	1951	15.138
15:00 - 16:00	16	1951	8.045	16	1951	8.006	16	1951	16.051
16:00 - 17:00	16	1951	7.644	16	1951	7.843	16	1951	15.487
17:00 - 18:00	16	1951	7.228	16	1951	7.644	16	1951	14.872
18:00 - 19:00	16	1951	6.270	16	1951	6.613	16	1951	12.883
19:00 - 20:00	16	1951	4.261	16	1951	5.049	16	1951	9.310
20:00 - 21:00	15	1994	2.918	15	1994	3.647	15	1994	6.565
21:00 - 22:00	14	2028	1.138	14	2028	1.878	14	2028	3.016
22:00 - 23:00	12	2127	0.039	12	2127	0.490	12	2127	0.529
23:00 - 24:00									
Total Rates:		84.078			83.984			168.062	

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.

Calculation Reference: AUDIT-204609-180816-0812

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
Category : C - DISCOUNT FOOD STORES
MULTI-MODAL VEHICLES

Selected regions and areas:

03	SOUTH WEST	
	SM SOMERSET	1 days
05	EAST MIDLANDS	
	LN LINCOLNSHIRE	3 days
	NR NORTHAMPTONSHIRE	1 days
	NT NOTTINGHAMSHIRE	1 days
06	WEST MIDLANDS	
	WM WEST MIDLANDS	2 days
	WO WORCESTERSHIRE	1 days
09	NORTH	
	NB NORTHUMBERLAND	1 days
10	WALES	
	CF CARDIFF	1 days
11	SCOTLAND	
	SR STIRLING	1 days

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

Secondary Filtering selection:

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

Parameter: Gross floor area
Actual Range: 1485 to 2624 (units: sqm)
Range Selected by User: 750 to 2635 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 28/10/17

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

Selected survey days:

Saturday 12 days

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

Selected survey types:

Manual count 12 days
Directional ATC Count 0 days

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

Selected Locations:

Edge of Town Centre	4
Suburban Area (PPS6 Out of Centre)	3
Edge of Town	3
Neighbourhood Centre (PPS6 Local Centre)	2

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

Selected Location Sub Categories:

Industrial Zone	1
Development Zone	1
Residential Zone	1
Retail Zone	1
Built-Up Zone	2
High Street	2
No Sub Category	4

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

Secondary Filtering selection:

Use Class:

A1	12 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	2 days
10,001 to 15,000	3 days
15,001 to 20,000	3 days
20,001 to 25,000	1 days
25,001 to 50,000	2 days
50,001 to 100,000	1 days

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

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	1 days
50,001 to 75,000	1 days
75,001 to 100,000	2 days
125,001 to 250,000	3 days
250,001 to 500,000	2 days
500,001 or More	2 days

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

Car ownership within 5 miles:

0.5 or Less	2 days
0.6 to 1.0	2 days
1.1 to 1.5	8 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	12 days

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

Travel Plan:

Not Known	1 days
Yes	2 days
No	9 days

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

PTAL Rating:

No PTAL Present	12 days
-----------------	---------

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

LIST OF SITES relevant to selection parameters

1	CF-01-C-01 LIDL EAST TYNDALL STREET CARDIFF	CARDIFF
	Suburban Area (PPS6 Out of Centre) Development Zone Total Gross floor area: 2568 sqm Survey date: SATURDAY 01/07/17	Survey Type: MANUAL
2	LN-01-C-01 LIDL RICHMOND DRIVE SKEGNESS	LINCOLNSHIRE
	Edge of Town Centre Built-Up Zone Total Gross floor area: 2398 sqm Survey date: SATURDAY 16/07/16	Survey Type: MANUAL
3	LN-01-C-02 LIDL DIXON STREET LINCOLN NEW BOULTHAM Suburban Area (PPS6 Out of Centre) No Sub Category Total Gross floor area: 2233 sqm Survey date: SATURDAY 28/10/17	LINCOLNSHIRE
4	LN-01-C-03 ALDI NEWARK ROAD LINCOLN BRACEBRIDGE Suburban Area (PPS6 Out of Centre) High Street Total Gross floor area: 1485 sqm Survey date: SATURDAY 28/10/17	LINCOLNSHIRE
5	NB-01-C-01 LIDL SCHALKSMUHLE ROAD BEDLINGTON	NORTHUMBERLAND
	Edge of Town Centre No Sub Category Total Gross floor area: 2450 sqm Survey date: SATURDAY 10/06/17	Survey Type: MANUAL
6	NR-01-C-02 LIDL NEWTON ROAD RUSHDEN	NORTHAMPTONSHIRE
	Edge of Town Centre Residential Zone Total Gross floor area: 2624 sqm Survey date: SATURDAY 16/07/16	Survey Type: MANUAL
7	NT-01-C-01 LIDL CHAPEL LANE BINGHAM	NOTTINGHAMSHIRE
	Edge of Town Industrial Zone Total Gross floor area: 2440 sqm Survey date: SATURDAY 16/07/16	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8	SM-01-C-01	LIDL		SOMERSET
	SEAWARD WAY			
	MINEHEAD			
	Edge of Town			
	No Sub Category			
	Total Gross floor area:	2247 sqm		
	Survey date: SATURDAY	24/06/17		Survey Type: MANUAL
9	SR-01-C-01	LIDL		STIRLING
	PLAYERS ROAD			
	STIRLING			
	Edge of Town Centre			
	Built-Up Zone			
	Total Gross floor area:	2442 sqm		
	Survey date: SATURDAY	03/06/17		Survey Type: MANUAL
10	WM-01-C-01	LIDL		WEST MIDLANDS
	MACKADOWN LANE			
	BIRMINGHAM			
	KITT'S GREEN			
	Neighbourhood Centre (PPS6 Local Centre)			
	No Sub Category			
	Total Gross floor area:	2085 sqm		
	Survey date: SATURDAY	09/07/16		Survey Type: MANUAL
11	WM-01-C-02	LIDL		WEST MIDLANDS
	HIGH STREET			
	WEST BROMWICH			
	GUNS VILLAGE			
	Neighbourhood Centre (PPS6 Local Centre)			
	High Street			
	Total Gross floor area:	2085 sqm		
	Survey date: SATURDAY	09/07/16		Survey Type: MANUAL
12	WO-01-C-01	LIDL		WORCESTERSHIRE
	BLACKPOLE ROAD			
	WORCESTER			
	BRICKFIELDS			
	Edge of Town			
	Retail Zone			
	Total Gross floor area:	2417 sqm		
	Survey date: SATURDAY	16/07/16		Survey Type: MANUAL

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

AECOM 2 City Walk Leeds

Licence No: 204609

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

MULTI-MODAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	2511	0.219	2	2511	0.080	2	2511	0.299
07:00 - 08:00	12	2290	0.499	12	2290	0.113	12	2290	0.612
08:00 - 09:00	12	2290	2.559	12	2290	1.809	12	2290	4.368
09:00 - 10:00	12	2290	3.560	12	2290	3.108	12	2290	6.668
10:00 - 11:00	12	2290	4.936	12	2290	4.320	12	2290	9.256
11:00 - 12:00	12	2290	6.180	12	2290	5.711	12	2290	11.891
12:00 - 13:00	12	2290	5.674	12	2290	6.282	12	2290	11.956
13:00 - 14:00	12	2290	5.714	12	2290	5.452	12	2290	11.166
14:00 - 15:00	12	2290	5.307	12	2290	5.314	12	2290	10.621
15:00 - 16:00	12	2290	5.278	12	2290	5.565	12	2290	10.843
16:00 - 17:00	12	2290	4.874	12	2290	5.118	12	2290	9.992
17:00 - 18:00	12	2290	4.124	12	2290	4.135	12	2290	8.259
18:00 - 19:00	12	2290	2.697	12	2290	3.327	12	2290	6.024
19:00 - 20:00	12	2290	2.002	12	2290	2.515	12	2290	4.517
20:00 - 21:00	12	2290	1.161	12	2290	1.350	12	2290	2.511
21:00 - 22:00	12	2290	0.597	12	2290	0.877	12	2290	1.474
22:00 - 23:00	12	2290	0.062	12	2290	0.229	12	2290	0.291
23:00 - 24:00									
Total Rates:			55.443			55.305			110.748

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

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

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Parameter summary

Trip rate parameter range selected:	1485 - 2624 (units: sqm)
Survey date date range:	01/01/10 - 28/10/17
Number of weekdays (Monday-Friday):	0
Number of Saturdays:	12
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

AECOM 2 City Walk Leeds

Licence No: 204609

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

MULTI-MODAL TAXIS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	2511	0.000	2	2511	0.000	2	2511	0.000
07:00 - 08:00	12	2290	0.004	12	2290	0.004	12	2290	0.008
08:00 - 09:00	12	2290	0.015	12	2290	0.015	12	2290	0.030
09:00 - 10:00	12	2290	0.015	12	2290	0.011	12	2290	0.026
10:00 - 11:00	12	2290	0.044	12	2290	0.036	12	2290	0.080
11:00 - 12:00	12	2290	0.080	12	2290	0.066	12	2290	0.146
12:00 - 13:00	12	2290	0.069	12	2290	0.076	12	2290	0.145
13:00 - 14:00	12	2290	0.073	12	2290	0.066	12	2290	0.139
14:00 - 15:00	12	2290	0.055	12	2290	0.051	12	2290	0.106
15:00 - 16:00	12	2290	0.069	12	2290	0.076	12	2290	0.145
16:00 - 17:00	12	2290	0.069	12	2290	0.073	12	2290	0.142
17:00 - 18:00	12	2290	0.051	12	2290	0.055	12	2290	0.106
18:00 - 19:00	12	2290	0.051	12	2290	0.055	12	2290	0.106
19:00 - 20:00	12	2290	0.033	12	2290	0.040	12	2290	0.073
20:00 - 21:00	12	2290	0.051	12	2290	0.051	12	2290	0.102
21:00 - 22:00	12	2290	0.015	12	2290	0.018	12	2290	0.033
22:00 - 23:00	12	2290	0.000	12	2290	0.000	12	2290	0.000
23:00 - 24:00									
Total Rates:			0.694			0.693			1.387

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

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

AECOM 2 City Walk Leeds

Licence No: 204609

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

MULTI-MODAL OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	2511	0.020	2	2511	0.020	2	2511	0.040
07:00 - 08:00	12	2290	0.015	12	2290	0.007	12	2290	0.022
08:00 - 09:00	12	2290	0.007	12	2290	0.015	12	2290	0.022
09:00 - 10:00	12	2290	0.011	12	2290	0.007	12	2290	0.018
10:00 - 11:00	12	2290	0.004	12	2290	0.007	12	2290	0.011
11:00 - 12:00	12	2290	0.000	12	2290	0.004	12	2290	0.004
12:00 - 13:00	12	2290	0.000	12	2290	0.000	12	2290	0.000
13:00 - 14:00	12	2290	0.011	12	2290	0.000	12	2290	0.011
14:00 - 15:00	12	2290	0.007	12	2290	0.007	12	2290	0.014
15:00 - 16:00	12	2290	0.011	12	2290	0.018	12	2290	0.029
16:00 - 17:00	12	2290	0.004	12	2290	0.004	12	2290	0.008
17:00 - 18:00	12	2290	0.004	12	2290	0.004	12	2290	0.008
18:00 - 19:00	12	2290	0.000	12	2290	0.000	12	2290	0.000
19:00 - 20:00	12	2290	0.011	12	2290	0.007	12	2290	0.018
20:00 - 21:00	12	2290	0.011	12	2290	0.011	12	2290	0.022
21:00 - 22:00	12	2290	0.000	12	2290	0.007	12	2290	0.007
22:00 - 23:00	12	2290	0.000	12	2290	0.000	12	2290	0.000
23:00 - 24:00									
Total Rates:			0.116			0.118			0.234

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.

AECOM 2 City Walk Leeds

Licence No: 204609

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

MULTI-MODAL PSVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	2511	0.000	2	2511	0.000	2	2511	0.000
07:00 - 08:00	12	2290	0.000	12	2290	0.000	12	2290	0.000
08:00 - 09:00	12	2290	0.000	12	2290	0.000	12	2290	0.000
09:00 - 10:00	12	2290	0.000	12	2290	0.000	12	2290	0.000
10:00 - 11:00	12	2290	0.004	12	2290	0.000	12	2290	0.004
11:00 - 12:00	12	2290	0.000	12	2290	0.004	12	2290	0.004
12:00 - 13:00	12	2290	0.000	12	2290	0.000	12	2290	0.000
13:00 - 14:00	12	2290	0.000	12	2290	0.000	12	2290	0.000
14:00 - 15:00	12	2290	0.000	12	2290	0.000	12	2290	0.000
15:00 - 16:00	12	2290	0.000	12	2290	0.000	12	2290	0.000
16:00 - 17:00	12	2290	0.000	12	2290	0.000	12	2290	0.000
17:00 - 18:00	12	2290	0.000	12	2290	0.000	12	2290	0.000
18:00 - 19:00	12	2290	0.000	12	2290	0.000	12	2290	0.000
19:00 - 20:00	12	2290	0.000	12	2290	0.000	12	2290	0.000
20:00 - 21:00	12	2290	0.000	12	2290	0.000	12	2290	0.000
21:00 - 22:00	12	2290	0.000	12	2290	0.000	12	2290	0.000
22:00 - 23:00	12	2290	0.000	12	2290	0.000	12	2290	0.000
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.

AECOM 2 City Walk Leeds

Licence No: 204609

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

MULTI-MODAL CYCLISTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	2511	0.020	2	2511	0.000	2	2511	0.020
07:00 - 08:00	12	2290	0.022	12	2290	0.004	12	2290	0.026
08:00 - 09:00	12	2290	0.047	12	2290	0.040	12	2290	0.087
09:00 - 10:00	12	2290	0.047	12	2290	0.055	12	2290	0.102
10:00 - 11:00	12	2290	0.080	12	2290	0.051	12	2290	0.131
11:00 - 12:00	12	2290	0.091	12	2290	0.076	12	2290	0.167
12:00 - 13:00	12	2290	0.062	12	2290	0.051	12	2290	0.113
13:00 - 14:00	12	2290	0.095	12	2290	0.062	12	2290	0.157
14:00 - 15:00	12	2290	0.066	12	2290	0.084	12	2290	0.150
15:00 - 16:00	12	2290	0.062	12	2290	0.040	12	2290	0.102
16:00 - 17:00	12	2290	0.062	12	2290	0.084	12	2290	0.146
17:00 - 18:00	12	2290	0.066	12	2290	0.102	12	2290	0.168
18:00 - 19:00	12	2290	0.073	12	2290	0.073	12	2290	0.146
19:00 - 20:00	12	2290	0.069	12	2290	0.062	12	2290	0.131
20:00 - 21:00	12	2290	0.062	12	2290	0.066	12	2290	0.128
21:00 - 22:00	12	2290	0.022	12	2290	0.055	12	2290	0.077
22:00 - 23:00	12	2290	0.000	12	2290	0.007	12	2290	0.007
23:00 - 24:00									
Total Rates:			0.946			0.912			1.858

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.

AECOM 2 City Walk Leeds

Licence No: 204609

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

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	2511	0.219	2	2511	0.080	2	2511	0.299
07:00 - 08:00	12	2290	0.761	12	2290	0.157	12	2290	0.918
08:00 - 09:00	12	2290	3.862	12	2290	2.737	12	2290	6.599
09:00 - 10:00	12	2290	5.576	12	2290	4.797	12	2290	10.373
10:00 - 11:00	12	2290	8.029	12	2290	6.839	12	2290	14.868
11:00 - 12:00	12	2290	9.944	12	2290	9.129	12	2290	19.073
12:00 - 13:00	12	2290	9.234	12	2290	10.443	12	2290	19.677
13:00 - 14:00	12	2290	9.944	12	2290	9.176	12	2290	19.120
14:00 - 15:00	12	2290	9.249	12	2290	9.274	12	2290	18.523
15:00 - 16:00	12	2290	9.056	12	2290	9.514	12	2290	18.570
16:00 - 17:00	12	2290	8.339	12	2290	8.772	12	2290	17.111
17:00 - 18:00	12	2290	7.054	12	2290	7.294	12	2290	14.348
18:00 - 19:00	12	2290	4.517	12	2290	5.522	12	2290	10.039
19:00 - 20:00	12	2290	3.436	12	2290	4.291	12	2290	7.727
20:00 - 21:00	12	2290	1.784	12	2290	2.220	12	2290	4.004
21:00 - 22:00	12	2290	0.939	12	2290	1.390	12	2290	2.329
22:00 - 23:00	12	2290	0.076	12	2290	0.302	12	2290	0.378
23:00 - 24:00									
Total Rates:			92.019			91.937			183.956

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.

AECOM 2 City Walk Leeds

Licence No: 204609

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

MULTI-MODAL PEDESTRIANS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	2511	0.319	2	2511	0.000	2	2511	0.319
07:00 - 08:00	12	2290	0.153	12	2290	0.058	12	2290	0.211
08:00 - 09:00	12	2290	0.517	12	2290	0.455	12	2290	0.972
09:00 - 10:00	12	2290	0.619	12	2290	0.659	12	2290	1.278
10:00 - 11:00	12	2290	1.114	12	2290	0.888	12	2290	2.002
11:00 - 12:00	12	2290	1.365	12	2290	1.427	12	2290	2.792
12:00 - 13:00	12	2290	1.824	12	2290	1.703	12	2290	3.527
13:00 - 14:00	12	2290	1.907	12	2290	1.751	12	2290	3.658
14:00 - 15:00	12	2290	1.922	12	2290	1.976	12	2290	3.898
15:00 - 16:00	12	2290	1.656	12	2290	1.991	12	2290	3.647
16:00 - 17:00	12	2290	1.769	12	2290	1.689	12	2290	3.458
17:00 - 18:00	12	2290	1.663	12	2290	1.540	12	2290	3.203
18:00 - 19:00	12	2290	1.532	12	2290	1.281	12	2290	2.813
19:00 - 20:00	12	2290	0.834	12	2290	1.059	12	2290	1.893
20:00 - 21:00	12	2290	0.826	12	2290	0.950	12	2290	1.776
21:00 - 22:00	12	2290	0.386	12	2290	0.517	12	2290	0.903
22:00 - 23:00	12	2290	0.047	12	2290	0.153	12	2290	0.200
23:00 - 24:00									
Total Rates:			18.453			18.097			36.550

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.

AECOM 2 City Walk Leeds

Licence No: 204609

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES
MULTI-MODAL BUS/TRAM PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	2511	0.060	2	2511	0.020	2	2511	0.080
07:00 - 08:00	12	2290	0.036	12	2290	0.025	12	2290	0.061
08:00 - 09:00	12	2290	0.135	12	2290	0.080	12	2290	0.215
09:00 - 10:00	12	2290	0.178	12	2290	0.164	12	2290	0.342
10:00 - 11:00	12	2290	0.200	12	2290	0.171	12	2290	0.371
11:00 - 12:00	12	2290	0.193	12	2290	0.153	12	2290	0.346
12:00 - 13:00	12	2290	0.186	12	2290	0.146	12	2290	0.332
13:00 - 14:00	12	2290	0.200	12	2290	0.164	12	2290	0.364
14:00 - 15:00	12	2290	0.207	12	2290	0.164	12	2290	0.371
15:00 - 16:00	12	2290	0.160	12	2290	0.175	12	2290	0.335
16:00 - 17:00	12	2290	0.124	12	2290	0.171	12	2290	0.295
17:00 - 18:00	12	2290	0.109	12	2290	0.153	12	2290	0.262
18:00 - 19:00	12	2290	0.116	12	2290	0.120	12	2290	0.236
19:00 - 20:00	12	2290	0.069	12	2290	0.135	12	2290	0.204
20:00 - 21:00	12	2290	0.044	12	2290	0.073	12	2290	0.117
21:00 - 22:00	12	2290	0.018	12	2290	0.033	12	2290	0.051
22:00 - 23:00	12	2290	0.004	12	2290	0.018	12	2290	0.022
23:00 - 24:00									
Total Rates:			2.039			1.965			4.004

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.

AECOM 2 City Walk Leeds

Licence No: 204609

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES
MULTI-MODAL TOTAL RAIL PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	2511	0.000	2	2511	0.000	2	2511	0.000
07:00 - 08:00	12	2290	0.007	12	2290	0.004	12	2290	0.011
08:00 - 09:00	12	2290	0.015	12	2290	0.011	12	2290	0.026
09:00 - 10:00	12	2290	0.022	12	2290	0.018	12	2290	0.040
10:00 - 11:00	12	2290	0.007	12	2290	0.011	12	2290	0.018
11:00 - 12:00	12	2290	0.015	12	2290	0.011	12	2290	0.026
12:00 - 13:00	12	2290	0.007	12	2290	0.011	12	2290	0.018
13:00 - 14:00	12	2290	0.011	12	2290	0.000	12	2290	0.011
14:00 - 15:00	12	2290	0.004	12	2290	0.015	12	2290	0.019
15:00 - 16:00	12	2290	0.007	12	2290	0.004	12	2290	0.011
16:00 - 17:00	12	2290	0.018	12	2290	0.011	12	2290	0.029
17:00 - 18:00	12	2290	0.004	12	2290	0.015	12	2290	0.019
18:00 - 19:00	12	2290	0.018	12	2290	0.011	12	2290	0.029
19:00 - 20:00	12	2290	0.007	12	2290	0.011	12	2290	0.018
20:00 - 21:00	12	2290	0.007	12	2290	0.018	12	2290	0.025
21:00 - 22:00	12	2290	0.007	12	2290	0.007	12	2290	0.014
22:00 - 23:00	12	2290	0.000	12	2290	0.000	12	2290	0.000
23:00 - 24:00									
Total Rates:			0.156			0.158			0.314

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.

AECOM 2 City Walk Leeds

Licence No: 204609

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

MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	2511	0.060	2	2511	0.020	2	2511	0.080
07:00 - 08:00	12	2290	0.044	12	2290	0.029	12	2290	0.073
08:00 - 09:00	12	2290	0.149	12	2290	0.091	12	2290	0.240
09:00 - 10:00	12	2290	0.200	12	2290	0.182	12	2290	0.382
10:00 - 11:00	12	2290	0.207	12	2290	0.182	12	2290	0.389
11:00 - 12:00	12	2290	0.207	12	2290	0.164	12	2290	0.371
12:00 - 13:00	12	2290	0.193	12	2290	0.157	12	2290	0.350
13:00 - 14:00	12	2290	0.211	12	2290	0.164	12	2290	0.375
14:00 - 15:00	12	2290	0.211	12	2290	0.178	12	2290	0.389
15:00 - 16:00	12	2290	0.167	12	2290	0.178	12	2290	0.345
16:00 - 17:00	12	2290	0.142	12	2290	0.182	12	2290	0.324
17:00 - 18:00	12	2290	0.113	12	2290	0.167	12	2290	0.280
18:00 - 19:00	12	2290	0.135	12	2290	0.131	12	2290	0.266
19:00 - 20:00	12	2290	0.076	12	2290	0.146	12	2290	0.222
20:00 - 21:00	12	2290	0.051	12	2290	0.091	12	2290	0.142
21:00 - 22:00	12	2290	0.025	12	2290	0.040	12	2290	0.065
22:00 - 23:00	12	2290	0.004	12	2290	0.018	12	2290	0.022
23:00 - 24:00									
Total Rates:			2.195			2.120			4.315

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.

AECOM 2 City Walk Leeds

Licence No: 204609

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

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	2511	0.617	2	2511	0.100	2	2511	0.717
07:00 - 08:00	12	2290	0.979	12	2290	0.248	12	2290	1.227
08:00 - 09:00	12	2290	4.575	12	2290	3.323	12	2290	7.898
09:00 - 10:00	12	2290	6.442	12	2290	5.693	12	2290	12.135
10:00 - 11:00	12	2290	9.431	12	2290	7.960	12	2290	17.391
11:00 - 12:00	12	2290	11.607	12	2290	10.796	12	2290	22.403
12:00 - 13:00	12	2290	11.313	12	2290	12.353	12	2290	23.666
13:00 - 14:00	12	2290	12.157	12	2290	11.152	12	2290	23.309
14:00 - 15:00	12	2290	11.447	12	2290	11.513	12	2290	22.960
15:00 - 16:00	12	2290	10.941	12	2290	11.724	12	2290	22.665
16:00 - 17:00	12	2290	10.312	12	2290	10.727	12	2290	21.039
17:00 - 18:00	12	2290	8.896	12	2290	9.103	12	2290	17.999
18:00 - 19:00	12	2290	6.257	12	2290	7.007	12	2290	13.264
19:00 - 20:00	12	2290	4.415	12	2290	5.558	12	2290	9.973
20:00 - 21:00	12	2290	2.723	12	2290	3.327	12	2290	6.050
21:00 - 22:00	12	2290	1.372	12	2290	2.002	12	2290	3.374
22:00 - 23:00	12	2290	0.127	12	2290	0.480	12	2290	0.607
23:00 - 24:00									
Total Rates:		113.611			113.066				226.677

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.

AECOM 2 City Walk Leeds

Licence No: 204609

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

MULTI-MODAL CARS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	2511	0.199	2	2511	0.060	2	2511	0.259
07:00 - 08:00	12	2290	0.411	12	2290	0.080	12	2290	0.491
08:00 - 09:00	12	2290	2.402	12	2290	1.660	12	2290	4.062
09:00 - 10:00	12	2290	3.385	12	2290	2.966	12	2290	6.351
10:00 - 11:00	12	2290	4.717	12	2290	4.146	12	2290	8.863
11:00 - 12:00	12	2290	5.915	12	2290	5.434	12	2290	11.349
12:00 - 13:00	12	2290	5.467	12	2290	6.038	12	2290	11.505
13:00 - 14:00	12	2290	5.427	12	2290	5.234	12	2290	10.661
14:00 - 15:00	12	2290	5.027	12	2290	5.045	12	2290	10.072
15:00 - 16:00	12	2290	5.056	12	2290	5.310	12	2290	10.366
16:00 - 17:00	12	2290	4.677	12	2290	4.936	12	2290	9.613
17:00 - 18:00	12	2290	3.909	12	2290	3.927	12	2290	7.836
18:00 - 19:00	12	2290	2.548	12	2290	3.134	12	2290	5.682
19:00 - 20:00	12	2290	1.871	12	2290	2.337	12	2290	4.208
20:00 - 21:00	12	2290	1.034	12	2290	1.219	12	2290	2.253
21:00 - 22:00	12	2290	0.535	12	2290	0.793	12	2290	1.328
22:00 - 23:00	12	2290	0.058	12	2290	0.222	12	2290	0.280
23:00 - 24:00									
Total Rates:			52.638			52.541			105.179

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.

AECOM 2 City Walk Leeds

Licence No: 204609

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

MULTI-MODAL LGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	2511	0.000	2	2511	0.000	2	2511	0.000
07:00 - 08:00	12	2290	0.066	12	2290	0.022	12	2290	0.088
08:00 - 09:00	12	2290	0.131	12	2290	0.113	12	2290	0.244
09:00 - 10:00	12	2290	0.142	12	2290	0.120	12	2290	0.262
10:00 - 11:00	12	2290	0.167	12	2290	0.127	12	2290	0.294
11:00 - 12:00	12	2290	0.164	12	2290	0.182	12	2290	0.346
12:00 - 13:00	12	2290	0.127	12	2290	0.157	12	2290	0.284
13:00 - 14:00	12	2290	0.193	12	2290	0.146	12	2290	0.339
14:00 - 15:00	12	2290	0.200	12	2290	0.200	12	2290	0.400
15:00 - 16:00	12	2290	0.131	12	2290	0.146	12	2290	0.277
16:00 - 17:00	12	2290	0.124	12	2290	0.106	12	2290	0.230
17:00 - 18:00	12	2290	0.153	12	2290	0.138	12	2290	0.291
18:00 - 19:00	12	2290	0.095	12	2290	0.135	12	2290	0.230
19:00 - 20:00	12	2290	0.080	12	2290	0.124	12	2290	0.204
20:00 - 21:00	12	2290	0.055	12	2290	0.066	12	2290	0.121
21:00 - 22:00	12	2290	0.047	12	2290	0.051	12	2290	0.098
22:00 - 23:00	12	2290	0.004	12	2290	0.007	12	2290	0.011
23:00 - 24:00									
Total Rates:			1.879			1.840			3.719

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.

AECOM 2 City Walk Leeds

Licence No: 204609

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

MULTI-MODAL MOTOR CYCLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	2511	0.000	2	2511	0.000	2	2511	0.000
07:00 - 08:00	12	2290	0.004	12	2290	0.000	12	2290	0.004
08:00 - 09:00	12	2290	0.004	12	2290	0.007	12	2290	0.011
09:00 - 10:00	12	2290	0.007	12	2290	0.004	12	2290	0.011
10:00 - 11:00	12	2290	0.000	12	2290	0.004	12	2290	0.004
11:00 - 12:00	12	2290	0.022	12	2290	0.022	12	2290	0.044
12:00 - 13:00	12	2290	0.011	12	2290	0.011	12	2290	0.022
13:00 - 14:00	12	2290	0.011	12	2290	0.007	12	2290	0.018
14:00 - 15:00	12	2290	0.018	12	2290	0.011	12	2290	0.029
15:00 - 16:00	12	2290	0.011	12	2290	0.022	12	2290	0.033
16:00 - 17:00	12	2290	0.000	12	2290	0.000	12	2290	0.000
17:00 - 18:00	12	2290	0.007	12	2290	0.011	12	2290	0.018
18:00 - 19:00	12	2290	0.004	12	2290	0.004	12	2290	0.008
19:00 - 20:00	12	2290	0.007	12	2290	0.007	12	2290	0.014
20:00 - 21:00	12	2290	0.011	12	2290	0.004	12	2290	0.015
21:00 - 22:00	12	2290	0.000	12	2290	0.007	12	2290	0.007
22:00 - 23:00	12	2290	0.000	12	2290	0.000	12	2290	0.000
23:00 - 24:00									
Total Rates:			0.117			0.121			0.238

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.

Appendix E Traffic Flow Diagrams

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **1**
 Location: **Cheetham Hill Road (A665) / Elizabeth Street**
 Date: **17 June 2017, Saturday**



Time	A - A									A - B								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00								0	0	16	2						18	18
13:15								0	0	18	3						21	21
13:30								0	0	31	6						37	37
13:45								0	0	30	2				1		33	32.4
H/Total	0	0	0	0	0	0	0	0	0	95	13	0	0	0	1	0	109	108.4
14:00								0	0	28	4						32	32
14:15								0	0	17						1	18	17.2
14:30								0	0	27							27	27
14:45								0	0	23	1						24	24
H/Total	0	0	0	0	0	0	0	0	0	95	5	0	0	0	0	1	101	100.2
15:00								0	0	20	2						22	22
15:15								0	0	19	1			1		1	22	22.2
15:30								0	0	19	3						22	22
15:45								0	0	18	2						20	20
H/Total	0	0	0	0	0	0	0	0	0	76	8	0	0	1	0	1	86	86.2
Total	0	0	0	0	0	0	0	0	0	266	26	0	0	1	1	2	296	294.8

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **1**
 Location: **Cheetham Hill Road (A665) / Elizabeth Street**
 Date: **17 June 2017, Saturday**



Time	A - C									A - D								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	112	11			5	1	1	130	133.6	47							47	47
13:15	112	14	1		3	2	3	135	134.9	39	1						40	40
13:30	140	9	1		3	1	4	158	157.7	40	1						41	41
13:45	136	4			2	1	2	145	144.8	47							47	47
H/Total	500	38	2	0	13	5	10	568	571	173	2	0	0	0	0	0	175	175
14:00	133	4			3			140	143	39	3						42	42
14:15	146	6	1		1			154	155.5	41							41	41
14:30	157	5			4	2	1	169	171	46	1						47	47
14:45	148	4			3		2	157	158.4	60							60	60
H/Total	584	19	1	0	11	2	3	620	627.9	186	4	0	0	0	0	0	190	190
15:00	146	3			2		1	152	153.2	42							42	42
15:15	152	5			2		3	162	161.6	37	1						38	38
15:30	150	8	3		4	1	1	167	171.1	36							36	36
15:45	150	6			2	2		160	160.8	35							35	35
H/Total	598	22	3	0	10	3	5	641	646.7	150	1	0	0	0	0	0	151	151
Total	1682	79	6	0	34	10	18	1829	1845.6	509	7	0	0	0	0	0	516	516

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **1**
 Location: **Cheetham Hill Road (A665) / Elizabeth Street**
 Date: **17 June 2017, Saturday**



Time	B - C									B - D								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00								0	0	3							3	3
13:15								0	0	9	1						10	10
13:30								0	0	8	1						9	9
13:45	1							1	1	7	2						9	9
H/Total	1	0	0	0	0	0	0	1	1	27	4	0	0	0	0	0	31	31
14:00								0	0	6	1						7	7
14:15								0	0	16	2						18	18
14:30	1							1	1	8	1						9	9
14:45								0	0	9	1						10	10
H/Total	1	0	0	0	0	0	0	1	1	39	5	0	0	0	0	0	44	44
15:00	1							1	1	6	1						7	7
15:15	1							1	1	12	1						13	13
15:30								0	0	5							5	5
15:45								0	0	5							5	5
H/Total	2	0	0	0	0	0	0	2	2	28	2	0	0	0	0	0	30	30
Total	4	0	0	0	0	0	0	4	4	94	11	0	0	0	0	0	105	105

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **1**
 Location: **Cheetham Hill Road (A665) / Elizabeth Street**
 Date: **17 June 2017, Saturday**



Time	C - A									C - B								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	145	8		1	4	2	2	162	164.5	3							3	3
13:15	125	11	1		6			143	149.5	3							3	3
13:30	151	10	1		2	1	1	166	167.1	1							1	1
13:45	154	9	1		2		1	167	168.7								0	0
H/Total	575	38	3	1	14	3	4	638	649.8	7	0	0	0	0	0	0	7	7
14:00	183	6	3	1	3	1	1	198	202.4		1						1	1
14:15	123	7		2	4		1	137	142.8	3							3	3
14:30	157	4			2		4	167	165.8	1							1	1
14:45	149	8			4	1	3	165	166	2							2	2
H/Total	612	25	3	3	13	2	9	667	677	6	1	0	0	0	0	0	7	7
15:00	162	8	2		3		2	177	179.4	1							1	1
15:15	146	10			3	1	2	162	162.8								0	0
15:30	142	8		2	3	1	1	157	161.2								0	0
15:45	159	4			3	1	3	170	170	2							2	2
H/Total	609	30	2	2	12	3	8	666	673.4	3	0	0	0	0	0	0	3	3
Total	1796	93	8	6	39	8	21	1971	2000.2	16	1	0	0	0	0	0	17	17

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **1**
 Location: **Cheetham Hill Road (A665) / Elizabeth Street**
 Date: **17 June 2017, Saturday**



Time	C - C									C - D								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00								0	0	23	2						25	25
13:15								0	0	16	1						17	17
13:30								0	0	15	1						16	16
13:45								0	0	26							26	26
H/Total	0	0	0	0	0	0	0	0	0	80	4	0	0	0	0	0	84	84
14:00								0	0	20	1						21	21
14:15								0	0	21							21	21
14:30	1							1	1	20	1		1		1		23	23.7
14:45	1							1	1	18							18	18
H/Total	2	0	0	0	0	0	0	2	2	79	2	0	1	0	1	0	83	83.7
15:00								0	0	27	1						28	28
15:15								0	0	26							26	26
15:30								0	0	25	1						26	26
15:45								0	0	16	1						17	17
H/Total	0	0	0	0	0	0	0	0	0	94	3	0	0	0	0	0	97	97
Total	2	0	0	0	0	0	0	2	2	253	9	0	1	0	1	0	264	264.7

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **1**
 Location: **Cheetham Hill Road (A665) / Elizabeth Street**
 Date: **17 June 2017, Saturday**



Time	D - A									D - B								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	78	1						79	79	10		1					11	11.5
13:15	75	2						77	77	8	1						9	9
13:30	74	4						78	78	13	2	1					16	16.5
13:45	60	1						61	61	8	1						9	9
H/Total	287	8	0	0	0	0	0	295	295	39	4	2	0	0	0	0	45	46
14:00	72	2				1		75	74.4	12	1						13	13
14:15	71	2						73	73	10	1						11	11
14:30	66		1					67	67.5	6							6	6
14:45	82					2		84	82.8	8	3						11	11
H/Total	291	4	1	0	0	3	0	299	297.7	36	5	0	0	0	0	0	41	41
15:00	59					1		60	59.4	9				1			10	11
15:15	69							69	69	10	1	1					12	12.5
15:30	70	4						74	74	2						1	3	2.2
15:45	76					1		77	76.4	12							12	12
H/Total	274	4	0	0	0	2	0	280	278.8	33	1	1	0	1	0	1	37	37.7
Total	852	16	1	0	0	5	0	874	871.5	108	10	3	0	1	0	1	123	124.7

Project Number: **TSP13301**
Project Name: **Cheetham Hill**
Survey Type: **Manual Classified Traffic Count**
Site No: **1**
Location: **Cheetham Hill Road (A665) / Elizabethher Street**
Date: **17 June 2017, Saturday**

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Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **1**
 Location: **Cheetham Hill Road (A665) / Elizabeth Street**
 Date: **17 June 2017, Saturday**



Time	From A									To A								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	175	13	0	0	5	1	1	195	198.6	240	13	0	1	4	2	2	262	264.5
13:15	169	18	1	0	3	2	3	196	195.9	218	14	2	0	6	0	0	240	247
13:30	211	16	1	0	3	1	4	236	235.7	245	16	1	0	2	1	1	266	267.1
13:45	213	6	0	0	2	2	2	225	224.2	230	13	1	0	2	0	1	247	248.7
H/Total	768	53	2	0	13	6	10	852	854.4	933	56	4	1	14	3	4	1015	1027.3
14:00	200	11	0	0	3	0	0	214	217	267	12	3	1	3	2	2	290	293
14:15	204	6	1	0	1	0	1	213	213.7	213	14	0	2	4	0	1	234	239.8
14:30	230	6	0	0	4	2	1	243	245	242	5	1	0	2	0	4	254	253.3
14:45	231	5	0	0	3	0	2	241	242.4	249	10	0	0	4	3	3	269	268.8
H/Total	865	28	1	0	11	2	4	911	918.1	971	41	4	3	13	5	10	1047	1054.9
15:00	208	5	0	0	2	0	1	216	217.2	232	10	2	0	3	1	2	250	251.8
15:15	208	7	0	0	3	0	4	222	221.8	230	11	0	0	3	1	2	247	247.8
15:30	205	11	3	0	4	1	1	225	229.1	240	12	0	2	3	2	1	260	263.6
15:45	203	8	0	0	2	2	0	215	215.8	251	5	1	0	3	2	3	265	264.9
H/Total	824	31	3	0	11	3	6	878	883.9	953	38	3	2	12	6	8	1022	1028.1
Total	2457	112	6	0	35	11	20	2641	2656.4	2857	135	11	6	39	14	22	3084	3110.3

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **1**
 Location: **Cheetham Hill Road (A665) / Elizabeth Street**
 Date: **17 June 2017, Saturday**



Time	From B									To B								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	20	4	0	0	0	0	0	24	24	29	2	1	0	0	0	0	32	32.5
13:15	27	2	1	0	0	0	0	30	30.5	29	4	0	0	0	0	0	33	33
13:30	28	3	0	0	0	0	0	31	31	45	8	1	0	0	0	0	54	54.5
13:45	24	5	0	0	0	0	0	29	29	38	3	0	0	0	1	0	42	41.4
H/Total	99	14	1	0	0	0	0	114	114.5	141	17	2	0	0	1	0	161	161.4
14:00	18	5	0	0	0	0	1	24	23.2	40	6	0	0	0	0	0	46	46
14:15	35	7	0	0	0	0	0	42	42	30	1	0	0	0	0	1	32	31.2
14:30	28	2	0	0	0	0	0	30	30	34	0	0	0	0	0	0	34	34
14:45	27	3	0	0	0	0	0	30	30	33	4	0	0	0	0	0	37	37
H/Total	108	17	0	0	0	0	1	126	125.2	137	11	0	0	0	0	1	149	148.2
15:00	18	3	0	0	0	0	0	21	21	30	2	0	0	1	0	0	33	34
15:15	28	2	0	0	0	0	0	30	30	29	2	1	0	1	0	1	34	34.7
15:30	33	0	0	0	0	1	0	34	33.4	21	3	0	0	0	0	1	25	24.2
15:45	21	1	1	0	0	0	0	23	23.5	32	2	0	0	0	0	0	34	34
H/Total	100	6	1	0	0	1	0	108	107.9	112	9	1	0	2	0	2	126	126.9
Total	307	37	2	0	0	1	1	348	347.6	390	37	3	0	2	1	3	436	436.5

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **1**
 Location: **Cheetham Hill Road (A665) / Elizabeth Street**
 Date: **17 June 2017, Saturday**



Time	From C									To C								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	171	10	0	1	4	2	2	190	192.5	126	13	0	0	5	1	1	146	149.6
13:15	144	12	1	0	6	0	0	163	169.5	133	14	1	0	3	2	3	156	155.9
13:30	167	11	1	0	2	1	1	183	184.1	163	9	1	0	3	1	5	182	180.9
13:45	180	9	1	0	2	0	1	193	194.7	154	5	0	0	2	1	2	164	163.8
H/Total	662	42	3	1	14	3	4	729	740.8	576	41	2	0	13	5	11	648	650.2
14:00	203	8	3	1	3	1	1	220	224.4	149	5	2	1	3	0	0	160	165.3
14:15	147	7	0	2	4	0	1	161	166.8	159	6	1	0	1	0	0	167	168.5
14:30	179	5	0	1	2	1	4	192	191.5	167	5	0	0	4	2	1	179	181
14:45	170	8	0	0	4	1	3	186	187	163	4	0	0	3	0	2	172	173.4
H/Total	699	28	3	4	13	3	9	759	769.7	638	20	3	1	11	2	3	678	688.2
15:00	190	9	2	0	3	0	2	206	208.4	159	4	0	0	2	0	1	166	167.2
15:15	172	10	0	0	3	1	2	188	188.8	167	5	0	0	2	0	3	177	176.6
15:30	167	9	0	2	3	1	1	183	187.2	164	8	3	0	4	1	1	181	185.1
15:45	177	5	0	0	3	1	3	189	189	168	6	0	0	2	2	0	178	178.8
H/Total	706	33	2	2	12	3	8	766	773.4	658	23	3	0	10	3	5	702	707.7
Total	2067	103	8	7	39	9	21	2254	2283.9	1872	84	8	1	34	10	19	2028	2046.1

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **1**
 Location: **Cheetham Hill Road (A665) / Elizabeth Street**
 Date: **17 June 2017, Saturday**



Time	From D									To D								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	102	3	1	0	0	0	0	106	106.5	73	2	0	0	0	0	0	75	75
13:15	104	3	0	0	0	0	0	107	107	64	3	0	0	0	0	0	67	67
13:30	110	6	1	0	0	0	1	118	117.7	63	3	0	0	0	0	0	66	66
13:45	85	3	0	0	0	0	0	88	88	80	2	0	0	0	0	0	82	82
H/Total	401	15	2	0	0	0	1	419	419.2	280	10	0	0	0	0	0	290	290
14:00	100	4	2	1	0	1	0	108	109.7	65	5	0	0	0	0	0	70	70
14:15	94	3	0	0	0	0	0	97	97	78	2	0	0	0	0	0	80	80
14:30	80	0	1	0	0	0	0	81	81.5	74	3	0	1	0	1	0	79	79.7
14:45	104	3	0	0	0	2	0	109	107.8	87	1	0	0	0	0	0	88	88
H/Total	378	10	3	1	0	3	0	395	396	304	11	0	1	0	1	0	317	317.7
15:00	80	1	0	0	1	1	0	83	83.4	75	2	0	0	0	0	0	77	77
15:15	93	1	1	0	0	0	0	95	95.5	75	2	0	0	0	0	0	77	77
15:30	86	4	0	0	0	0	1	91	90.2	66	1	0	0	0	0	0	67	67
15:45	106	0	0	0	0	1	0	107	106.4	56	1	0	0	0	0	0	57	57
H/Total	365	6	1	0	1	2	1	376	375.5	272	6	0	0	0	0	0	278	278
Total	1144	31	6	1	1	5	2	1190	1190.7	856	27	0	1	0	1	0	885	885.7

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **1**
 Location: **Cheetham Hill Road (A665) / Elizabeth Street**
 Date: **17 June 2017, Saturday**



Time	Whole Junction								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	468	30	1	1	9	3	3	515	521.6
13:15	444	35	3	0	9	2	3	496	502.9
13:30	516	36	3	0	5	2	6	568	568.5
13:45	502	23	1	0	4	2	3	535	535.9
H/Total	1930	124	8	1	27	9	15	2114	2128.9
14:00	521	28	5	2	6	2	2	566	574.3
14:15	480	23	1	2	5	0	2	513	519.5
14:30	517	13	1	1	6	3	5	546	548
14:45	532	19	0	0	7	3	5	566	567.2
H/Total	2050	83	7	5	24	8	14	2191	2209
15:00	496	18	2	0	6	1	3	526	530
15:15	501	20	1	0	6	1	6	535	536.1
15:30	491	24	3	2	7	3	3	533	539.9
15:45	507	14	1	0	5	4	3	534	534.7
H/Total	1995	76	7	2	24	9	15	2128	2140.7
Total	5975	283	22	8	75	26	44	6433	6478.6

Peak Hours		Totals
13:00	14:00	2114
13:15	14:15	2165
13:30	14:30	2182
13:45	14:45	2160

14:00	15:00	2191
14:15	15:15	2151
14:30	15:30	2173
14:45	15:45	2160

15:00	16:00	2128
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Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **2**
 Location: **Cheetham Hill Road (A665) / Manchester Fort**
 Date: **17 June 2017, Saturday**



Time	A - A									A - B								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00								0	0	159	6				2		167	165.8
13:15								0	0	151	7				3		161	159.2
13:30								0	0	145	7						152	152
13:45								0	0	160	8						168	168
H/Total	0	0	0	0	0	0	0	0	0	615	28	0	0	0	5	0	648	645
14:00								0	0	135	1					1	137	136.2
14:15								0	0	168	5						173	173
14:30								0	0	171	6						177	177
14:45								0	0	153	5			1			159	160
H/Total	0	0	0	0	0	0	0	0	0	627	17	0	0	1	0	1	646	646.2
15:00								0	0	156					1		157	156.4
15:15								0	0	136	3						139	139
15:30								0	0	130	5				1		136	135.4
15:45								0	0	136	3						139	139
H/Total	0	0	0	0	0	0	0	0	0	558	11	0	0	0	2	0	571	569.8
Total	0	0	0	0	0	0	0	0	0	1800	56	0	0	1	7	1	1865	1861

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **2**
 Location: **Cheetham Hill Road (A665) / Manchester Fort**
 Date: **17 June 2017, Saturday**



Time	A - C									B - A								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	103	9			5		1	118	122.2	136	7						143	143
13:15	98	11	1		3	1	2	116	117.3	167	3						170	170
13:30	124	8	1		3	2	2	140	140.7	173	7				2		182	180.8
13:45	143	6			2	2	2	155	154.2	180	6						186	186
H/Total	468	34	2	0	13	5	7	529	534.4	656	23	0	0	0	2	0	681	679.8
14:00	113	7			3			123	126	172	6				1		179	178.4
14:15	127	3	1		1		1	133	133.7	189	8				1		198	197.4
14:30	146	5			4	3	2	160	160.6	139	6					1	146	145.2
14:45	114	5			3		2	124	125.4	168	6						174	174
H/Total	500	20	1	0	11	3	5	540	545.7	668	26	0	0	0	2	1	697	695
15:00	116	4			2			122	124	180	8				1		189	188.4
15:15	119	5			3		4	131	130.8	187	4	1					192	192.5
15:30	128	6	3		4	1	1	143	147.1	168	4			1			173	174
15:45	131	6			2	1	1	141	141.6	168	4				1		173	172.4
H/Total	494	21	3	0	11	2	6	537	543.5	703	20	1	0	1	2	0	727	727.3
Total	1462	75	6	0	35	10	18	1606	1623.6	2027	69	1	0	1	6	1	2105	2102.1

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **2**
 Location: **Cheetham Hill Road (A665) / Manchester Fort**
 Date: **17 June 2017, Saturday**



Time	B - B									B - C								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00								0	0	66	5				1		72	71.4
13:15								0	0	76	7				2		85	83.8
13:30								0	0	90	6				1		97	96.4
13:45								0	0	77							77	77
H/Total	0	0	0	0	0	0	0	0	0	309	18	0	0	0	4	0	331	328.6
14:00								0	0	78	5						83	83
14:15								0	0	78	2						80	80
14:30								0	0	94	2						96	96
14:45								0	0	101							101	101
H/Total	0	0	0	0	0	0	0	0	0	351	9	0	0	0	0	0	360	360
15:00								0	0	89	2					1	92	91.2
15:15								0	0	87	1						88	88
15:30								0	0	76	5						81	81
15:45								0	0	73	3				1		77	76.4
H/Total	0	0	0	0	0	0	0	0	0	325	11	0	0	0	1	1	338	336.6
Total	0	0	0	0	0	0	0	0	0	985	38	0	0	0	5	1	1029	1025.2

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **2**
 Location: **Cheetham Hill Road (A665) / Manchester Fort**
 Date: **17 June 2017, Saturday**



Time	C - A									C - B								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	125	7		1	4	2		139	143.1	117	6				1		124	123.4
13:15	109	7	2		6			124	131	110	6						116	116
13:30	133	8	1		1			143	144.5	103	6				1		110	109.4
13:45	140	10	1		3			154	157.5	88	3						91	91
H/Total	507	32	4	1	14	2	0	560	576.1	418	21	0	0	0	2	0	441	439.8
14:00	170	12	3	1	3			189	194.8	108	2				2		112	110.8
14:15	129	10		2	4			145	151.6	80	3						83	83
14:30	127	4			2			133	135	101	2	1					104	104.5
14:45	152	9			4	3		168	170.2	111	1				1		113	112.4
H/Total	578	35	3	3	13	3	0	635	651.6	400	8	1	0	0	3	0	412	410.7
15:00	130	6	2		2			140	143	97	3				1		101	100.4
15:15	136	9			3	1		149	151.4	99	5						104	104
15:30	128	4		2	4	2		140	145.4	115	7						122	122
15:45	138	4			3	1		146	148.4	102	1	1			2		106	105.3
H/Total	532	23	2	2	12	4	0	575	588.2	413	16	1	0	0	3	0	433	431.7
Total	1617	90	9	6	39	9	0	1770	1815.9	1231	45	2	0	0	8	0	1286	1282.2

[illegible]



Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **2**
 Location: **Cheetham Hill Road (A665) / Manchester Fort**
 Date: **17 June 2017, Saturday**



Time	From A									To A								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	262	15	0	0	5	2	1	285	288	261	14	0	1	4	2	0	282	286.1
13:15	249	18	1	0	3	4	2	277	276.5	276	10	2	0	6	0	0	294	301
13:30	269	15	1	0	3	2	2	292	292.7	306	15	1	0	1	2	0	325	325.3
13:45	303	14	0	0	2	2	2	323	322.2	320	16	1	0	3	0	0	340	343.5
H/Total	1083	62	2	0	13	10	7	1177	1179.4	1163	55	4	1	14	4	0	1241	1255.9
14:00	248	8	0	0	3	0	1	260	262.2	342	18	3	1	3	1	0	368	373.2
14:15	295	8	1	0	1	0	1	306	306.7	318	18	0	2	4	1	0	343	349
14:30	317	11	0	0	4	3	2	337	337.6	266	10	0	0	2	0	1	279	280.2
14:45	267	10	0	0	4	0	2	283	285.4	320	15	0	0	4	3	0	342	344.2
H/Total	1127	37	1	0	12	3	6	1186	1191.9	1246	61	3	3	13	5	1	1332	1346.6
15:00	272	4	0	0	2	1	0	279	280.4	310	14	2	0	2	1	0	329	331.4
15:15	255	8	0	0	3	0	4	270	269.8	323	13	1	0	3	1	0	341	343.9
15:30	258	11	3	0	4	2	1	279	282.5	296	8	0	2	5	2	0	313	319.4
15:45	267	9	0	0	2	1	1	280	280.6	306	8	0	0	3	2	0	319	320.8
H/Total	1052	32	3	0	11	4	6	1108	1113.3	1235	43	3	2	13	6	0	1302	1315.5
Total	3262	131	6	0	36	17	19	3471	3484.6	3644	159	10	6	40	15	1	3875	3918

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **2**
 Location: **Cheetham Hill Road (A665) / Manchester Fort**
 Date: **17 June 2017, Saturday**



Time	From B									To B								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	202	12	0	0	0	1	0	215	214.4	276	12	0	0	0	3	0	291	289.2
13:15	243	10	0	0	0	2	0	255	253.8	261	13	0	0	0	3	0	277	275.2
13:30	263	13	0	0	0	3	0	279	277.2	248	13	0	0	0	1	0	262	261.4
13:45	257	6	0	0	0	0	0	263	263	248	11	0	0	0	0	0	259	259
H/Total	965	41	0	0	0	6	0	1012	1008.4	1033	49	0	0	0	7	0	1089	1084.8
14:00	250	11	0	0	0	1	0	262	261.4	243	3	0	0	0	2	1	249	247
14:15	267	10	0	0	0	1	0	278	277.4	248	8	0	0	0	0	0	256	256
14:30	233	8	0	0	0	0	1	242	241.2	272	8	1	0	0	0	0	281	281.5
14:45	269	6	0	0	0	0	0	275	275	264	6	0	0	1	1	0	272	272.4
H/Total	1019	35	0	0	0	2	1	1057	1055	1027	25	1	0	1	3	1	1058	1056.9
15:00	269	10	0	0	0	1	1	281	279.6	253	3	0	0	0	2	0	258	256.8
15:15	274	5	1	0	0	0	0	280	280.5	235	8	0	0	0	0	0	243	243
15:30	244	9	0	0	1	0	0	254	255	245	12	0	0	0	1	0	258	257.4
15:45	241	7	0	0	0	2	0	250	248.8	238	4	1	0	0	2	0	245	244.3
H/Total	1028	31	1	0	1	3	1	1065	1063.9	971	27	1	0	0	5	0	1004	1001.5
Total	3012	107	1	0	1	11	2	3134	3127.3	3031	101	2	0	1	15	1	3151	3143.2

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **2**
 Location: **Cheetham Hill Road (A665) / Manchester Fort**
 Date: **17 June 2017, Saturday**



Time	From C									To C								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	242	13	0	1	4	3	0	263	266.5	169	14	0	0	5	1	1	190	193.6
13:15	219	13	2	0	6	0	0	240	247	174	18	1	0	3	3	2	201	201.1
13:30	236	14	1	0	1	1	0	253	253.9	214	14	1	0	3	3	2	237	237.1
13:45	228	13	1	0	3	0	0	245	248.5	220	6	0	0	2	2	2	232	231.2
H/Total	925	53	4	1	14	4	0	1001	1015.9	777	52	2	0	13	9	7	860	863
14:00	278	14	3	1	3	2	0	301	305.6	191	12	0	0	3	0	0	206	209
14:15	209	13	0	2	4	0	0	228	234.6	205	5	1	0	1	0	1	213	213.7
14:30	228	6	1	0	2	0	0	237	239.5	240	7	0	0	4	3	2	256	256.6
14:45	263	10	0	0	4	4	0	281	282.6	215	5	0	0	3	0	2	225	226.4
H/Total	978	43	4	3	13	6	0	1047	1062.3	851	29	1	0	11	3	5	900	905.7
15:00	227	9	2	0	2	1	0	241	243.4	205	6	0	0	2	0	1	214	215.2
15:15	235	14	0	0	3	1	0	253	255.4	206	6	0	0	3	0	4	219	218.8
15:30	243	11	0	2	4	2	0	262	267.4	204	11	3	0	4	1	1	224	228.1
15:45	240	5	1	0	3	3	0	252	253.7	204	9	0	0	2	2	1	218	218
H/Total	945	39	3	2	12	7	0	1008	1019.9	819	32	3	0	11	3	7	875	880.1
Total	2848	135	11	6	39	17	0	3056	3098.1	2447	113	6	0	35	15	19	2635	2648.8

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **2**
 Location: **Cheetham Hill Road (A665) / Manchester Fort**
 Date: **17 June 2017, Saturday**



Time	Whole Junction								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	706	40	0	1	9	6	1	763	768.9
13:15	711	41	3	0	9	6	2	772	777.3
13:30	768	42	2	0	4	6	2	824	823.8
13:45	788	33	1	0	5	2	2	831	833.7
H/Total	2973	156	6	1	27	20	7	3190	3203.7
14:00	776	33	3	1	6	3	1	823	829.2
14:15	771	31	1	2	5	1	1	812	818.7
14:30	778	25	1	0	6	3	3	816	818.3
14:45	799	26	0	0	8	4	2	839	843
H/Total	3124	115	5	3	25	11	7	3290	3309.2
15:00	768	23	2	0	4	3	1	801	803.4
15:15	764	27	1	0	6	1	4	803	805.7
15:30	745	31	3	2	9	4	1	795	804.9
15:45	748	21	1	0	5	6	1	782	783.1
H/Total	3025	102	7	2	24	14	7	3181	3197.1
Total	9122	373	18	6	76	45	21	9661	9710

Peak Hours		Totals
13:00	14:00	3190
13:15	14:15	3250
13:30	14:30	3290
13:45	14:45	3282

14:00	15:00	3290
14:15	15:15	3268
14:30	15:30	3259
14:45	15:45	3238

15:00	16:00	3181
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Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **3**
 Location: **Cheetham Hill Road (A665) / Queens Road (A6010)**
 Date: **17 June 2017, Saturday**



Time	A - A									A - B								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00								0	0	23	1	1					25	25.5
13:15								0	0	28	1						29	29
13:30								0	0	27	2	1					30	30.5
13:45								0	0	30	1		1				32	33.3
H/Total	0	0	0	0	0	0	0	0	0	108	5	2	1	0	0	0	116	118.3
14:00								0	0	23	1						24	24
14:15								0	0	31	3						34	34
14:30								0	0	25	2						27	27
14:45								0	0	32	2	1		1			36	37.5
H/Total	0	0	0	0	0	0	0	0	0	111	8	1	0	1	0	0	121	122.5
15:00								0	0	24	1		1				26	27.3
15:15								0	0	28	1	1				1	31	30.7
15:30								0	0	27	2						29	29
15:45								0	0	24	3	1		2			30	32.5
H/Total	0	0	0	0	0	0	0	0	0	103	7	2	1	2	0	1	116	119.5
Total	0	0	0	0	0	0	0	0	0	322	20	5	2	3	0	1	353	360.3

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **3**
 Location: **Cheetham Hill Road (A665) / Queens Road (A6010)**
 Date: **17 June 2017, Saturday**



Time	A - C									A - D								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	128	10			4			142	146	7							7	7
13:15	126	8	1		3	4	2	144	143.5	7	1						8	8
13:30	142	5	1		3	1	1	153	155.1	6	1						7	7
13:45	165	5			2		1	173	174.2	9	1						10	10
H/Total	561	28	2	0	12	5	4	612	618.8	29	3	0	0	0	0	0	32	32
14:00	142	1			3		1	147	149.2	13	1						14	14
14:15	172	2			2		2	178	178.4	10	2						12	12
14:30	170	7			2	2	1	182	182	18							18	18
14:45	134	5			2		1	142	143.2	5	2						7	7
H/Total	618	15	0	0	9	2	5	649	652.8	46	5	0	0	0	0	0	51	51
15:00	151	2			2			155	157	9							9	9
15:15	114	4			5		3	126	128.6	12	1						13	13
15:30	164	11	3		4	1	1	184	188.1	6							6	6
15:45	154	4			2			160	162	13	4						17	17
H/Total	583	21	3	0	13	1	4	625	635.7	40	5	0	0	0	0	0	45	45
Total	1762	64	5	0	34	8	13	1886	1907.3	115	13	0	0	0	0	0	128	128

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **3**
 Location: **Cheetham Hill Road (A665) / Queens Road (A6010)**
 Date: **17 June 2017, Saturday**



Time	B - C									B - D								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	134	8			1	2	1	146	145	58	4				2		64	62.8
13:15	118	8						126	126	44	5	1				1	51	50.7
13:30	134	9				1	1	145	143.6	65	3				2		70	68.8
13:45	136	8				2		146	144.8	61	8						69	69
H/Total	522	33	0	0	1	5	2	563	559.4	228	20	1	0	0	4	1	254	251.3
14:00	104	5						109	109	49	5	1					55	55.5
14:15	128	3	1					132	132.5	62	3	1					66	66.5
14:30	133	3				1	1	138	136.6	58	9						67	67
14:45	137	5			1			143	144	64	3						67	67
H/Total	502	16	1	0	1	1	1	522	522.1	233	20	2	0	0	0	0	255	256
15:00	124	3				1		128	127.4	58	6				6		70	66.4
15:15	132	3						135	135	58	6				1		65	64.4
15:30	101	2				2		105	103.8	56	7						63	63
15:45	101	3					2	106	104.4	52	7			1			60	61
H/Total	458	11	0	0	0	3	2	474	470.6	224	26	0	0	1	7	0	258	254.8
Total	1482	60	1	0	2	9	5	1559	1552.1	685	66	3	0	1	11	1	767	762.1

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **3**
 Location: **Cheetham Hill Road (A665) / Queens Road (A6010)**
 Date: **17 June 2017, Saturday**



Time	C - A									C - B								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	154	8			4	1	2	169	170.8	102	5					1	108	107.2
13:15	148	5	1		5			159	164.5	95	7	1		1			104	105.5
13:30	169	9	1		1	2		182	182.3	98	4						102	102
13:45	190	9	1		3		1	204	206.7	111	7						118	118
H/Total	661	31	3	0	13	3	3	714	724.3	406	23	1	0	1	0	1	432	432.7
14:00	188	12	1		2		2	205	205.9	126	6			1	1		134	134.4
14:15	147	7		1	4	1	1	161	164.9	129	10		2				141	143.6
14:30	156	8			2		3	169	168.6	98	3					1	102	101.2
14:45	186	9			4	3	6	208	205.4	125	5						130	130
H/Total	677	36	1	1	12	4	12	743	744.8	478	24	0	2	1	1	1	507	509.2
15:00	180	10	2		2	1	2	197	197.8	109	2					1	112	111.2
15:15	163	5			3	1	1	173	174.6	125	6	1					132	132.5
15:30	147	6			5	1	1	160	163.6	116	3		2		1		122	124
15:45	173	6			2		4	185	183.8	108	2			1	3		114	113.2
H/Total	663	27	2	0	12	3	8	715	719.8	458	13	1	2	1	4	1	480	480.9
Total	2001	94	6	1	37	10	23	2172	2188.9	1342	60	2	4	3	5	3	1419	1422.8

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **3**
 Location: **Cheetham Hill Road (A665) / Queens Road (A6010)**
 Date: **17 June 2017, Saturday**



Time	C - C									C - D								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00								0	0	16		1				1	18	17.7
13:15								0	0	20							20	20
13:30								0	0	30							30	30
13:45								0	0	30	1						31	31
H/Total	0	0	0	0	0	0	0	0	0	96	1	1	0	0	0	1	99	98.7
14:00								0	0	37		1	1				39	40.8
14:15								0	0	24	1						25	25
14:30								0	0	24	1						25	25
14:45								0	0	14	1						15	15
H/Total	0	0	0	0	0	0	0	0	0	99	3	1	1	0	0	0	104	105.8
15:00								0	0	21	3						24	24
15:15								0	0	28							28	28
15:30								0	0	21					1		22	21.4
15:45								0	0	28							28	28
H/Total	0	0	0	0	0	0	0	0	0	98	3	0	0	0	1	0	102	101.4
Total	0	0	0	0	0	0	0	0	0	293	7	2	1	0	1	1	305	305.9

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **3**
 Location: **Cheetham Hill Road (A665) / Queens Road (A6010)**
 Date: **17 June 2017, Saturday**



Time	D - A									D - B								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	5							5	5	59	3	1			1		64	63.9
13:15	5	1						6	6	46	3					1	50	49.2
13:30	5							5	5	52	6					2	60	58.4
13:45	6	1						7	7	52	6			1			59	60
H/Total	21	2	0	0	0	0	0	23	23	209	18	1	0	1	1	3	233	231.5
14:00	9							9	9	45	4			1			50	51
14:15	5							5	5	57	7	1			1		66	65.9
14:30	9	1						10	10	45	8						53	53
14:45	3							3	3	52	7			1			60	61
H/Total	26	1	0	0	0	0	0	27	27	199	26	1	0	2	1	0	229	230.9
15:00	5							5	5	45	3				1	5	54	49.4
15:15	3							3	3	61	3						64	64
15:30	11							11	11	55	4	1			1		61	60.9
15:45	9							9	9	49	3						52	52
H/Total	28	0	0	0	0	0	0	28	28	210	13	1	0	0	2	5	231	226.3
Total	75	3	0	0	0	0	0	78	78	618	57	3	0	3	4	8	693	688.7

[illegible]

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **3**
 Location: **Cheetham Hill Road (A665) / Queens Road (A6010)**
 Date: **17 June 2017, Saturday**



Time	From A									To A								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	158	11	1	0	4	0	0	174	178.5	184	10	0	0	5	1	2	202	204.8
13:15	161	10	1	0	3	4	2	181	180.5	181	9	1	0	5	0	0	196	201.5
13:30	175	8	2	0	3	1	1	190	192.6	190	9	2	0	1	2	0	204	204.8
13:45	204	7	0	1	2	0	1	215	217.5	226	10	1	0	4	0	1	242	245.7
H/Total	698	36	4	1	12	5	4	760	769.1	781	38	4	0	15	3	3	844	856.8
14:00	178	3	0	0	3	0	1	185	187.2	223	14	1	0	2	0	2	242	242.9
14:15	213	7	0	0	2	0	2	224	224.4	170	8	0	1	4	1	1	185	188.9
14:30	213	9	0	0	2	2	1	227	227	188	10	1	0	2	0	4	205	204.3
14:45	171	9	1	0	3	0	1	185	187.7	212	10	0	0	5	3	6	236	234.4
H/Total	775	28	1	0	10	2	5	821	826.3	793	42	2	1	13	4	13	868	870.5
15:00	184	3	0	1	2	0	0	190	193.3	205	11	3	0	2	1	2	224	225.3
15:15	154	6	1	0	5	0	4	170	172.3	185	8	0	0	3	1	2	199	199.8
15:30	197	13	3	0	4	1	1	219	223.1	186	9	1	0	5	1	1	203	207.1
15:45	191	11	1	0	4	0	0	207	211.5	202	8	1	0	4	0	4	219	220.3
H/Total	726	33	5	1	15	1	5	786	800.2	778	36	5	0	14	3	9	845	852.5
Total	2199	97	10	2	37	8	14	2367	2395.6	2352	116	11	1	42	10	25	2557	2579.8

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **3**
 Location: **Cheetham Hill Road (A665) / Queens Road (A6010)**
 Date: **17 June 2017, Saturday**



Time	From B									To B								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	217	14	0	0	2	4	1	238	236.8	184	9	2	0	0	1	1	197	196.6
13:15	190	16	1	0	0	0	1	208	207.7	169	11	1	0	1	0	1	183	183.7
13:30	215	12	1	0	0	3	1	232	229.9	177	12	1	0	0	0	2	192	190.9
13:45	227	16	0	0	1	2	0	246	245.8	193	14	0	1	1	0	0	209	211.3
H/Total	849	58	2	0	3	9	3	924	920.2	723	46	4	1	2	1	4	781	782.5
14:00	179	12	1	0	0	0	0	192	192.5	194	11	0	0	2	1	0	208	209.4
14:15	208	7	2	0	0	0	0	217	218	217	20	1	2	0	1	0	241	243.5
14:30	214	13	1	0	0	1	2	231	229.3	168	13	0	0	0	0	1	182	181.2
14:45	224	9	0	0	2	0	0	235	237	209	14	1	0	2	0	0	226	228.5
H/Total	825	41	4	0	2	1	2	875	876.8	788	58	2	2	4	2	1	857	862.6
15:00	202	10	1	0	0	7	0	220	216.3	178	6	0	1	0	1	6	192	187.9
15:15	209	12	0	0	0	1	1	223	221.6	214	10	2	0	0	0	1	227	227.2
15:30	185	12	1	0	0	2	0	200	199.3	198	9	1	2	0	2	0	212	213.9
15:45	173	12	1	0	3	0	2	191	192.9	181	8	1	0	3	3	0	196	197.7
H/Total	769	46	3	0	3	10	3	834	830.1	771	33	4	3	3	6	7	827	826.7
Total	2443	145	9	0	8	20	8	2633	2627.1	2282	137	10	6	9	9	12	2465	2471.8

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **3**
 Location: **Cheetham Hill Road (A665) / Queens Road (A6010)**
 Date: **17 June 2017, Saturday**



Time	From C									To C								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	272	13	1	0	4	1	4	295	295.7	262	18	0	0	5	2	1	288	291
13:15	263	12	2	0	6	0	0	283	290	246	16	1	0	3	4	2	272	271.5
13:30	297	13	1	0	1	2	0	314	314.3	278	14	1	0	3	2	2	300	300.7
13:45	331	17	1	0	3	0	1	353	355.7	301	13	0	0	2	2	1	319	319
H/Total	1163	55	5	0	14	3	5	1245	1255.7	1087	61	2	0	13	10	6	1179	1182.2
14:00	351	18	2	1	3	1	2	378	381.1	246	6	0	0	3	0	1	256	258.2
14:15	300	18	0	3	4	1	1	327	333.5	300	5	1	0	2	0	2	310	310.9
14:30	278	12	0	0	2	0	4	296	294.8	303	11	0	0	2	3	2	321	319.6
14:45	325	15	0	0	4	3	6	353	350.4	272	10	0	0	3	0	1	286	288.2
H/Total	1254	63	2	4	13	5	13	1354	1359.8	1121	32	1	0	10	3	6	1173	1176.9
15:00	310	15	2	0	2	1	3	333	333	275	5	0	0	2	1	0	283	284.4
15:15	316	11	1	0	3	1	1	333	335.1	248	7	0	0	5	0	3	263	265.6
15:30	284	9	0	2	5	3	1	304	309	265	13	3	0	4	3	1	289	291.9
15:45	309	8	0	0	3	3	4	327	325	255	7	0	0	2	0	2	266	266.4
H/Total	1219	43	3	2	13	8	9	1297	1302.1	1043	32	3	0	13	4	6	1101	1108.3
Total	3636	161	10	6	40	16	27	3896	3917.6	3251	125	6	0	36	17	18	3453	3467.4

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **3**
 Location: **Cheetham Hill Road (A665) / Queens Road (A6010)**
 Date: **17 June 2017, Saturday**



Time	From D									To D								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	64	3	1	0	0	1	0	69	68.9	81	4	1	0	0	2	1	89	87.5
13:15	53	4	0	0	0	0	1	58	57.2	71	6	1	0	0	0	1	79	78.7
13:30	59	6	0	0	0	0	2	67	65.4	101	4	0	0	0	2	0	107	105.8
13:45	58	7	0	0	1	0	0	66	67	100	10	0	0	0	0	0	110	110
H/Total	234	20	1	0	1	1	3	260	258.5	353	24	2	0	0	4	2	385	382
14:00	54	4	0	0	1	0	0	59	60	99	6	2	1	0	0	0	108	110.3
14:15	62	7	1	0	0	1	0	71	70.9	96	6	1	0	0	0	0	103	103.5
14:30	54	10	0	0	0	0	0	64	64	100	10	0	0	0	0	0	110	110
14:45	56	7	0	0	1	0	0	64	65	83	6	0	0	0	0	0	89	89
H/Total	226	28	1	0	2	1	0	258	259.9	378	28	3	1	0	0	0	410	412.8
15:00	50	3	0	0	0	1	5	59	54.4	88	9	0	0	0	6	0	103	99.4
15:15	66	3	0	0	0	0	0	69	69	98	7	0	0	0	1	0	106	105.4
15:30	66	4	1	0	0	1	0	72	71.9	83	7	0	0	0	1	0	91	90.4
15:45	58	3	0	0	0	0	0	61	61	93	11	0	0	1	0	0	105	106
H/Total	240	13	1	0	0	2	5	261	256.3	362	34	0	0	1	8	0	405	401.2
Total	700	61	3	0	3	4	8	779	774.7	1093	86	5	1	1	12	2	1200	1196

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **3**
 Location: **Cheetham Hill Road (A665) / Queens Road (A6010)**
 Date: **17 June 2017, Saturday**



Time	Whole Junction								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	711	41	3	0	10	6	5	776	779.9
13:15	667	42	4	0	9	4	4	730	735.4
13:30	746	39	4	0	4	6	4	803	802.2
13:45	820	47	1	1	7	2	2	880	886
H/Total	2944	169	12	1	30	18	15	3189	3203.5
14:00	762	37	3	1	7	1	3	814	820.8
14:15	783	39	3	3	6	2	3	839	846.8
14:30	759	44	1	0	4	3	7	818	815.1
14:45	776	40	1	0	10	3	7	837	840.1
H/Total	3080	160	8	4	27	9	20	3308	3322.8
15:00	746	31	3	1	4	9	8	802	797
15:15	745	32	2	0	8	2	6	795	798
15:30	732	38	5	2	9	7	2	795	803.3
15:45	731	34	2	0	10	3	6	786	790.4
H/Total	2954	135	12	3	31	21	22	3178	3188.7
Total	8978	464	32	8	88	48	57	9675	9715

Peak Hours		Totals
13:00	14:00	3189
13:15	14:15	3227
13:30	14:30	3336
13:45	14:45	3351

14:00	15:00	3308
14:15	15:15	3296
14:30	15:30	3252
14:45	15:45	3229

15:00	16:00	3178
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Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **4**
 Location: **Elizabeth Street / Cheetham Hill Retail Park**
 Date: **17 June 2017, Saturday**



	1	1	1.5	2.3	2	0.4	0.2											
Time	A - A									A - B								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00								0	0	26							26	26
13:15								0	0	28							28	28
13:30								0	0	30							30	30
13:45								0	0	32	2						34	34
H/Total	0	0	0	0	0	0	0	0	0	116	2	0	0	0	0	0	118	118
14:00								0	0	29							29	29
14:15								0	0	31	1						32	32
14:30								0	0	19	2						21	21
14:45								0	0	35	4						39	39
H/Total	0	0	0	0	0	0	0	0	0	114	7	0	0	0	0	0	121	121
15:00								0	0	25	1						26	26
15:15								0	0	40							40	40
15:30								0	0	27					1		28	27.4
15:45								0	0	30						1	31	30.2
H/Total	0	0	0	0	0	0	0	0	0	122	1	0	0	0	1	1	125	123.6
Total	0	0	0	0	0	0	0	0	0	352	10	0	0	0	1	1	364	362.6

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **4**
 Location: **Elizabeth Street / Cheetham Hill Retail Park**
 Date: **17 June 2017, Saturday**



Time	A - C									B - A								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	63	1	1					65	65.5	16	1						17	17
13:15	80	3	1					84	84.5	17	1						18	18
13:30	75	4						79	79	25						1	26	25.2
13:45	55	5						60	60	23	1						24	24
H/Total	273	13	2	0	0	0	0	288	289	81	3	0	0	0	0	1	85	84.2
14:00	67	3	2	1		1		74	75.7	34						1	35	34.2
14:15	63	2						65	65	22							22	22
14:30	70		1					71	71.5	27							27	27
14:45	54	2						56	56	26	1						27	27
H/Total	254	7	3	1	0	1	0	266	268.2	109	1	0	0	0	0	1	111	110.2
15:00	59	2			1	1		63	63.4	23	2						25	25
15:15	54	1	1					56	56.5	29							29	29
15:30	53	3					1	57	56.2	20	2						22	22
15:45	64					2		66	64.8	10							10	10
H/Total	230	6	1	0	1	3	1	242	240.9	82	4	0	0	0	0	0	86	86
Total	757	26	6	1	1	4	1	796	798.1	272	8	0	0	0	0	2	282	280.4

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **4**
 Location: **Elizabeth Street / Cheetham Hill Retail Park**
 Date: **17 June 2017, Saturday**



Time	B - B									B - C								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00								0	0	46	1						47	47
13:15								0	0	20	1						21	21
13:30								0	0	33	1						34	34
13:45								0	0	32							32	32
H/Total	0	0	0	0	0	0	0	0	0	131	3	0	0	0	0	0	134	134
14:00								0	0	48	1						49	49
14:15								0	0	31	1						32	32
14:30								0	0	30							30	30
14:45								0	0	32	2						34	34
H/Total	0	0	0	0	0	0	0	0	0	141	4	0	0	0	0	0	145	145
15:00								0	0	37	1						38	38
15:15								0	0	42							42	42
15:30								0	0	39							39	39
15:45								0	0	34							34	34
H/Total	0	0	0	0	0	0	0	0	0	152	1	0	0	0	0	0	153	153
Total	0	0	0	0	0	0	0	0	0	424	8	0	0	0	0	0	432	432

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **4**
 Location: **Elizabeth Street / Cheetham Hill Retail Park**
 Date: **17 June 2017, Saturday**



Time	C - A									C - B								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	42							42	42	32	2					1	35	34.2
13:15	44	2						46	46	27	1						28	28
13:30	35	4						39	39	31							31	31
13:45	48	1						49	49	30							30	30
H/Total	169	7	0	0	0	0	0	176	176	120	3	0	0	0	0	1	124	123.2
14:00	42	4						46	46	34	1					1	36	35.2
14:15	53	1					3	57	54.6	36	2						38	38
14:30	45	3		1		1	1	51	50.9	35							35	35
14:45	53	1	1			1		56	55.9	31							31	31
H/Total	193	9	1	1	0	2	4	210	207.4	136	3	0	0	0	0	1	140	139.2
15:00	46	3						49	49	38							38	38
15:15	47	1						48	48	29	1						30	30
15:30	55	1						56	56	22							22	22
15:45	37	1						38	38	22					1		23	22.4
H/Total	185	6	0	0	0	0	0	191	191	111	1	0	0	0	1	0	113	112.4
Total	547	22	1	1	0	2	4	577	574.4	367	7	0	0	0	1	2	377	374.8

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **4**
 Location: **Elizabeth Street / Cheetham Hill Retail Park**
 Date: **17 June 2017, Saturday**



Time	C - C								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00								0	0
13:15								0	0
13:30								0	0
13:45								0	0
H/Total	0	0	0	0	0	0	0	0	0
14:00								0	0
14:15								0	0
14:30								0	0
14:45	1							1	1
H/Total	1	0	0	0	0	0	0	1	1
15:00								0	0
15:15								0	0
15:30								0	0
15:45	1							1	1
H/Total	1	0	0	0	0	0	0	1	1
Total	2	0	0	0	0	0	0	2	2



Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **4**
 Location: **Elizabeth Street / Cheetham Hill Retail Park**
 Date: **17 June 2017, Saturday**



Time	From A									To A								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	89	1	1	0	0	0	0	91	91.5	58	1	0	0	0	0	0	59	59
13:15	108	3	1	0	0	0	0	112	112.5	61	3	0	0	0	0	0	64	64
13:30	105	4	0	0	0	0	0	109	109	60	4	0	0	0	0	1	65	64.2
13:45	87	7	0	0	0	0	0	94	94	71	2	0	0	0	0	0	73	73
H/Total	389	15	2	0	0	0	0	406	407	250	10	0	0	0	0	1	261	260.2
14:00	96	3	2	1	0	1	0	103	104.7	76	4	0	0	0	0	1	81	80.2
14:15	94	3	0	0	0	0	0	97	97	75	1	0	0	0	0	3	79	76.6
14:30	89	2	1	0	0	0	0	92	92.5	72	3	0	1	0	1	1	78	77.9
14:45	89	6	0	0	0	0	0	95	95	79	2	1	0	0	1	0	83	82.9
H/Total	368	14	3	1	0	1	0	387	389.2	302	10	1	1	0	2	5	321	317.6
15:00	84	3	0	0	1	1	0	89	89.4	69	5	0	0	0	0	0	74	74
15:15	94	1	1	0	0	0	0	96	96.5	76	1	0	0	0	0	0	77	77
15:30	80	3	0	0	0	1	1	85	83.6	75	3	0	0	0	0	0	78	78
15:45	94	0	0	0	0	2	1	97	95	47	1	0	0	0	0	0	48	48
H/Total	352	7	1	0	1	4	2	367	364.5	267	10	0	0	0	0	0	277	277
Total	1109	36	6	1	1	5	2	1160	1160.7	819	30	1	1	0	2	6	859	854.8

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **4**
 Location: **Elizabeth Street / Cheetham Hill Retail Park**
 Date: **17 June 2017, Saturday**



Time	From B									To B								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	62	2	0	0	0	0	0	64	64	58	2	0	0	0	0	1	61	60.2
13:15	37	2	0	0	0	0	0	39	39	55	1	0	0	0	0	0	56	56
13:30	58	1	0	0	0	0	1	60	59.2	61	0	0	0	0	0	0	61	61
13:45	55	1	0	0	0	0	0	56	56	62	2	0	0	0	0	0	64	64
H/Total	212	6	0	0	0	0	1	219	218.2	236	5	0	0	0	0	1	242	241.2
14:00	82	1	0	0	0	0	1	84	83.2	63	1	0	0	0	0	1	65	64.2
14:15	53	1	0	0	0	0	0	54	54	67	3	0	0	0	0	0	70	70
14:30	57	0	0	0	0	0	0	57	57	54	2	0	0	0	0	0	56	56
14:45	58	3	0	0	0	0	0	61	61	66	4	0	0	0	0	0	70	70
H/Total	250	5	0	0	0	0	1	256	255.2	250	10	0	0	0	0	1	261	260.2
15:00	60	3	0	0	0	0	0	63	63	63	1	0	0	0	0	0	64	64
15:15	71	0	0	0	0	0	0	71	71	69	1	0	0	0	0	0	70	70
15:30	59	2	0	0	0	0	0	61	61	49	0	0	0	0	1	0	50	49.4
15:45	44	0	0	0	0	0	0	44	44	52	0	0	0	0	1	1	54	52.6
H/Total	234	5	0	0	0	0	0	239	239	233	2	0	0	0	2	1	238	236
Total	696	16	0	0	0	0	2	714	712.4	719	17	0	0	0	2	3	741	737.4

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **4**
 Location: **Elizabeth Street / Cheetham Hill Retail Park**
 Date: **17 June 2017, Saturday**



Time	From C									To C								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	74	2	0	0	0	0	1	77	76.2	109	2	1	0	0	0	0	112	112.5
13:15	71	3	0	0	0	0	0	74	74	100	4	1	0	0	0	0	105	105.5
13:30	66	4	0	0	0	0	0	70	70	108	5	0	0	0	0	0	113	113
13:45	78	1	0	0	0	0	0	79	79	87	5	0	0	0	0	0	92	92
H/Total	289	10	0	0	0	0	1	300	299.2	404	16	2	0	0	0	0	422	423
14:00	76	5	0	0	0	0	1	82	81.2	115	4	2	1	0	1	0	123	124.7
14:15	89	3	0	0	0	0	3	95	92.6	94	3	0	0	0	0	0	97	97
14:30	80	3	0	1	0	1	1	86	85.9	100	0	1	0	0	0	0	101	101.5
14:45	85	1	1	0	0	1	0	88	87.9	87	4	0	0	0	0	0	91	91
H/Total	330	12	1	1	0	2	5	351	347.6	396	11	3	1	0	1	0	412	414.2
15:00	84	3	0	0	0	0	0	87	87	96	3	0	0	1	1	0	101	101.4
15:15	76	2	0	0	0	0	0	78	78	96	1	1	0	0	0	0	98	98.5
15:30	77	1	0	0	0	0	0	78	78	92	3	0	0	0	0	1	96	95.2
15:45	60	1	0	0	0	1	0	62	61.4	99	0	0	0	0	2	0	101	99.8
H/Total	297	7	0	0	0	1	0	305	304.4	383	7	1	0	1	3	1	396	394.9
Total	916	29	1	1	0	3	6	956	951.2	1183	34	6	1	1	4	1	1230	1232.1

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **4**
 Location: **Elizabeth Street / Cheetham Hill Retail Park**
 Date: **17 June 2017, Saturday**



Time	Whole Junction								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	225	5	1	0	0	0	1	232	231.7
13:15	216	8	1	0	0	0	0	225	225.5
13:30	229	9	0	0	0	0	1	239	238.2
13:45	220	9	0	0	0	0	0	229	229
H/Total	890	31	2	0	0	0	2	925	924.4
14:00	254	9	2	1	0	1	2	269	269.1
14:15	236	7	0	0	0	0	3	246	243.6
14:30	226	5	1	1	0	1	1	235	235.4
14:45	232	10	1	0	0	1	0	244	243.9
H/Total	948	31	4	2	0	3	6	994	992
15:00	228	9	0	0	1	1	0	239	239.4
15:15	241	3	1	0	0	0	0	245	245.5
15:30	216	6	0	0	0	1	1	224	222.6
15:45	198	1	0	0	0	3	1	203	200.4
H/Total	883	19	1	0	1	5	2	911	907.9
Total	2721	81	7	2	1	8	10	2830	2824.3

Peak Hours		Totals
13:00	14:00	925
13:15	14:15	962
13:30	14:30	983
13:45	14:45	979

14:00	15:00	994
14:15	15:15	964
14:30	15:30	963
14:45	15:45	952

15:00	16:00	911
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traffic survey partners

[illegible]

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **5**
 Location: **Elizabeth Street / Queens Road (A6010)**
 Date: **17 June 2017, Saturday**



Time	A - C									A - D								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	3							3	3	1							1	1
13:15	4							4	4								0	0
13:30	1							1	1								0	0
13:45	1							1	1								0	0
H/Total	9	0	0	0	0	0	0	9	9	1	0	0	0	0	0	0	1	1
14:00	1							1	1								0	0
14:15	4						1	5	4.2								0	0
14:30	2							2	2	1							1	1
14:45	1							1	1								0	0
H/Total	8	0	0	0	0	0	1	9	8.2	1	0	0	0	0	0	0	1	1
15:00	2							2	2								0	0
15:15	2							2	2								0	0
15:30	1							1	1								0	0
15:45	3							3	3	1							1	1
H/Total	8	0	0	0	0	0	0	8	8	1	0	0	0	0	0	0	1	1
Total	25	0	0	0	0	0	1	26	25.2	3	0	0	0	0	0	0	3	3

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **5**
 Location: **Elizabeth Street / Queens Road (A6010)**
 Date: **17 June 2017, Saturday**



Time	B - C									B - D								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	10	1						11	11	73	5	1			2		81	80.3
13:15	6							6	6	58	6	1				1	66	65.7
13:30	9							9	9	88	3				2		93	91.8
13:45	15	2						17	17	85	8						93	93
H/Total	40	3	0	0	0	0	0	43	43	304	22	2	0	0	4	1	333	330.8
14:00	17		2					19	20	82	7	1					90	90.5
14:15	12							12	12	83	5	1					89	89.5
14:30	12							12	12	84	8						92	92
14:45	13	1						14	14	68	5					1	74	73.2
H/Total	54	1	2	0	0	0	0	57	58	317	25	2	0	0	0	1	345	345.2
15:00	12	1						13	13	76	9		1		6	1	93	89.9
15:15	18							18	18	78	7				1		86	85.4
15:30	10					1		11	10.4	71	6						77	77
15:45	15							15	15	78	11			1			90	91
H/Total	55	1	0	0	0	1	0	57	56.4	303	33	0	1	1	7	1	346	343.3
Total	149	5	2	0	0	1	0	157	157.4	924	80	4	1	1	11	3	1024	1019.3

Project Number: **TSP13301**
 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **5**
 Location: **Elizabeth Street / Queens Road (A6010)**
 Date: **17 June 2017, Saturday**



Time	C - A									C - B								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	5							5	5	6	1						7	7
13:15	5							5	5								0	0
13:30	5	1						6	6	3							3	3
13:45	7							7	7	6							6	6
H/Total	22	1	0	0	0	0	0	23	23	15	1	0	0	0	0	0	16	16
14:00	6							6	6	9							9	9
14:15	8							8	8	3							3	3
14:30	3							3	3	8							8	8
14:45	4							4	4	6		1					7	7.5
H/Total	21	0	0	0	0	0	0	21	21	26	0	1	0	0	0	0	27	27.5
15:00	1							1	1	2							2	2
15:15	3							3	3	6							6	6
15:30	5							5	5	6							6	6
15:45	3							3	3	4							4	4
H/Total	12	0	0	0	0	0	0	12	12	18	0	0	0	0	0	0	18	18
Total	55	1	0	0	0	0	0	56	56	59	1	1	0	0	0	0	61	61.5

Project Number: **TSP13301**
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 Site No: **5**
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 Date: **17 June 2017, Saturday**



Time	C - C									C - D								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00								0	0	49						1	50	49.2
13:15	1							1	1	53	3						56	56
13:30								0	0	57	2					1	60	59.2
13:45								0	0	58	2						60	60
H/Total	1	0	0	0	0	0	0	1	1	217	7	0	0	0	0	2	226	224.4
14:00								0	0	63	3					1	67	66.2
14:15								0	0	63	1						64	64
14:30								0	0	64	2		1		1		68	68.7
14:45								0	0	67	2				1		70	69.4
H/Total	0	0	0	0	0	0	0	0	0	257	8	0	1	0	2	1	269	268.3
15:00								0	0	67	5						72	72
15:15								0	0	69	2						71	71
15:30								0	0	64	3						67	67
15:45								0	0	39	1						40	40
H/Total	0	0	0	0	0	0	0	0	0	239	11	0	0	0	0	0	250	250
Total	1	0	0	0	0	0	0	1	1	713	26	0	1	0	2	3	745	742.7

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 Site No: **5**
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Time	D - A									D - B								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	3							3	3	62	3	1			1		67	66.9
13:15	1	1						2	2	53	3						56	56
13:30		1						1	1	50	5						55	55
13:45	3							3	3	56	7			1			64	65
H/Total	7	2	0	0	0	0	0	9	9	221	18	1	0	1	1	0	242	242.9
14:00	2							2	2	44	5			1			50	51
14:15	1							1	1	55	6	1			1		63	62.9
14:30	2							2	2	50	11						61	61
14:45	4							4	4	55	4			1			60	61
H/Total	9	0	0	0	0	0	0	9	9	204	26	1	0	2	1	0	234	235.9
15:00	3							3	3	52	3				1		56	55.4
15:15	2							2	2	53	3	1					57	57.5
15:30	3							3	3	56	4						60	60
15:45	2	1						3	3	52	2						54	54
H/Total	10	1	0	0	0	0	0	11	11	213	12	1	0	0	1	0	227	226.9
Total	26	3	0	0	0	0	0	29	29	638	56	3	0	3	3	0	703	705.7

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 Site No: **5**
 Location: **Elizabeth Street / Queens Road (A6010)**
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Time	D - C									D - D								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	75		1					76	76.5								0	0
13:15	96	2	1					99	99.5								0	0
13:30	100	5						105	105	1							1	1
13:45	74	2						76	76								0	0
H/Total	345	9	2	0	0	0	0	356	357	1	0	0	0	0	0	0	1	1
14:00	79	3		1		1		84	84.7								0	0
14:15	75	3						78	78								0	0
14:30	76	2	1					79	79.5								0	0
14:45	78	4						82	82								0	0
H/Total	308	12	1	1	0	1	0	323	324.2	0	0	0	0	0	0	0	0	0
15:00	81	1			1	1		84	84.4								0	0
15:15	66	1	1					68	68.5								0	0
15:30	70	4					1	75	74.2								0	0
15:45	74					2		76	74.8								0	0
H/Total	291	6	1	0	1	3	1	303	301.9	0	0	0	0	0	0	0	0	0
Total	944	27	4	1	1	4	1	982	983.1	1	0	0	0	0	0	0	1	1

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 Site No: **5**
 Location: **Elizabeth Street / Queens Road (A6010)**
 Date: **17 June 2017, Saturday**



Time	From A									To A								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	4	0	0	0	0	0	0	4	4	10	0	0	0	0	0	0	10	10
13:15	4	0	0	0	0	0	0	4	4	11	1	0	0	0	0	0	12	12
13:30	1	0	0	0	0	0	0	1	1	6	2	0	0	0	0	0	8	8
13:45	1	0	0	0	0	0	0	1	1	13	0	0	0	0	0	0	13	13
H/Total	10	0	0	0	0	0	0	10	10	40	3	0	0	0	0	0	43	43
14:00	1	0	0	0	0	0	0	1	1	10	0	0	0	0	0	0	10	10
14:15	4	0	0	0	0	0	1	5	4.2	9	1	0	0	0	0	0	10	10
14:30	3	0	0	0	0	0	0	3	3	9	0	0	0	0	0	0	9	9
14:45	1	0	0	0	0	0	0	1	1	11	0	0	0	0	0	0	11	11
H/Total	9	0	0	0	0	0	1	10	9.2	39	1	0	0	0	0	0	40	40
15:00	2	0	0	0	0	0	0	2	2	6	0	0	0	0	0	0	6	6
15:15	2	0	0	0	0	0	0	2	2	6	0	0	0	0	0	0	6	6
15:30	1	0	0	0	0	0	0	1	1	10	0	0	0	0	0	0	10	10
15:45	4	0	0	0	0	0	0	4	4	5	1	0	0	0	0	0	6	6
H/Total	9	0	0	0	0	0	0	9	9	27	1	0	0	0	0	0	28	28
Total	28	0	0	0	0	0	1	29	28.2	106	5	0	0	0	0	0	111	111

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 Project Name: **Cheetham Hill**
 Survey Type: **Manual Classified Traffic Count**
 Site No: **5**
 Location: **Elizabeth Street / Queens Road (A6010)**
 Date: **17 June 2017, Saturday**



Time	From B									To B								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	85	6	1	0	0	2	0	94	93.3	68	4	1	0	0	1	0	74	73.9
13:15	69	6	1	0	0	0	1	77	76.7	53	3	0	0	0	0	0	56	56
13:30	98	3	0	0	0	2	0	103	101.8	53	5	0	0	0	0	0	58	58
13:45	103	10	0	0	0	0	0	113	113	62	7	0	0	1	0	0	70	71
H/Total	355	25	2	0	0	4	1	387	384.8	236	19	1	0	1	1	0	258	258.9
14:00	101	7	3	0	0	0	0	111	112.5	53	5	0	0	1	0	0	59	60
14:15	95	6	1	0	0	0	0	102	102.5	58	6	1	0	0	1	0	66	65.9
14:30	100	8	0	0	0	0	0	108	108	58	11	0	0	0	0	0	69	69
14:45	84	6	0	0	0	0	1	91	90.2	61	4	1	0	1	0	0	67	68.5
H/Total	380	27	4	0	0	0	1	412	413.2	230	26	2	0	2	1	0	261	263.4
15:00	90	10	0	1	0	6	1	108	104.9	54	3	0	0	0	1	0	58	57.4
15:15	97	7	0	0	0	1	0	105	104.4	59	3	1	0	0	0	0	63	63.5
15:30	83	6	0	0	0	1	0	90	89.4	62	4	0	0	0	0	0	66	66
15:45	93	11	0	0	1	0	0	105	106	56	2	0	0	0	0	0	58	58
H/Total	363	34	0	1	1	8	1	408	404.7	231	12	1	0	0	1	0	245	244.9
Total	1098	86	6	1	1	12	3	1207	1202.7	697	57	4	0	3	3	0	764	767.2

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 Site No: **5**
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Time	From C									To C								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	60	1	0	0	0	0	1	62	61.2	88	1	1	0	0	0	0	90	90.5
13:15	59	3	0	0	0	0	0	62	62	107	2	1	0	0	0	0	110	110.5
13:30	65	3	0	0	0	0	1	69	68.2	110	5	0	0	0	0	0	115	115
13:45	71	2	0	0	0	0	0	73	73	90	4	0	0	0	0	0	94	94
H/Total	255	9	0	0	0	0	2	266	264.4	395	12	2	0	0	0	0	409	410
14:00	78	3	0	0	0	0	1	82	81.2	97	3	2	1	0	1	0	104	105.7
14:15	74	1	0	0	0	0	0	75	75	91	3	0	0	0	0	1	95	94.2
14:30	75	2	0	1	0	1	0	79	79.7	90	2	1	0	0	0	0	93	93.5
14:45	77	2	1	0	0	1	0	81	80.9	92	5	0	0	0	0	0	97	97
H/Total	304	8	1	1	0	2	1	317	316.8	370	13	3	1	0	1	1	389	390.4
15:00	70	5	0	0	0	0	0	75	75	95	2	0	0	1	1	0	99	99.4
15:15	78	2	0	0	0	0	0	80	80	86	1	1	0	0	0	0	88	88.5
15:30	75	3	0	0	0	0	0	78	78	81	4	0	0	0	1	1	87	85.6
15:45	46	1	0	0	0	0	0	47	47	92	0	0	0	0	2	0	94	92.8
H/Total	269	11	0	0	0	0	0	280	280	354	7	1	0	1	4	1	368	366.3
Total	828	28	1	1	0	2	3	863	861.2	1119	32	6	1	1	5	2	1166	1166.7

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 Site No: **5**
 Location: **Elizabeth Street / Queens Road (A6010)**
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Time	From D									To D								
	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)	CAR	LGV	OGV 1	OGV 2	PSV	MCY	PCY	TOTAL	TOTAL (PCU)
13:00	140	3	2	0	0	1	0	146	146.4	123	5	1	0	0	2	1	132	130.5
13:15	150	6	1	0	0	0	0	157	157.5	111	9	1	0	0	0	1	122	121.7
13:30	151	11	0	0	0	0	0	162	162	146	5	0	0	0	2	1	154	152
13:45	133	9	0	0	1	0	0	143	144	143	10	0	0	0	0	0	153	153
H/Total	574	29	3	0	1	1	0	608	609.9	523	29	2	0	0	4	3	561	557.2
14:00	125	8	0	1	1	1	0	136	137.7	145	10	1	0	0	0	1	157	156.7
14:15	131	9	1	0	0	1	0	142	141.9	146	6	1	0	0	0	0	153	153.5
14:30	128	13	1	0	0	0	0	142	142.5	149	10	0	1	0	1	0	161	161.7
14:45	137	8	0	0	1	0	0	146	147	135	7	0	0	0	1	1	144	142.6
H/Total	521	38	2	1	2	2	0	566	569.1	575	33	2	1	0	2	2	615	614.5
15:00	136	4	0	0	1	2	0	143	142.8	143	14	0	1	0	6	1	165	161.9
15:15	121	4	2	0	0	0	0	127	128	147	9	0	0	0	1	0	157	156.4
15:30	129	8	0	0	0	0	1	138	137.2	135	9	0	0	0	0	0	144	144
15:45	128	3	0	0	0	2	0	133	131.8	118	12	0	0	1	0	0	131	132
H/Total	514	19	2	0	1	4	1	541	539.8	543	44	0	1	1	7	1	597	594.3
Total	1609	86	7	1	4	7	1	1715	1718.8	1641	106	4	2	1	13	6	1773	1766