

Deal A Property Ltd

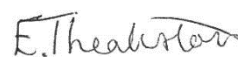
Robin Hood Street,
Cheetham Hill

Transport Statement



Control Sheet

CLIENT: Deal A Property Ltd
PROJECT TITLE: Robin Hood Street,
 Cheetham Hill
REPORT TITLE: Transport Statement
PROJECT REFERENCE: 155334
DOCUMENT NUMBER: 001
ISSUE NUMBER: 01
DATE: July 2023

Issue & Approval Schedule	Issue 01 <Status>		Name		Signature		Date	
	Prepared by		Elizabeth Theakston				05.07.2023	
	Checked by		David Colley				05.07.2023	
	Approved by		Simon Burkinshaw				05.07.2023	
Issue Record	Issue	Date	Status	Description	Signature			
	02				Prepared			
					Checked			
					Approved			
	03				Prepared			
					Checked			
					Approved			

This document has been prepared in accordance with procedure OP/P02 of the Sanderson Associates Consulting Engineers Quality and Environmental Management System.

This document has been prepared in accordance with the instructions of the client, Deal A Property Ltd, for the client's sole and specific use. Any other persons who use any information contained herein do so at their own risk.

Any information provided by third parties and referred to herein has not been checked or verified by Sanderson Associates Consulting Engineers unless otherwise expressly stated within this report.

Copyright - All intellectual property rights in, or arising out of, or in connection with this report, are owned by Sanderson Associates Consulting Engineers. The client named above has a licence to copy and use this report only for the purposes for which it was provided. The licence to use and copy this report is subject to other terms and conditions agreed between Sanderson Associates Consulting Engineers and the client.

Sanderson Associates Consulting Engineers is a trading name of Fairhurst Group LLP, a limited liability partnership, registered in Scotland with the registered number SO307306.

Acknowledgements

Google My Maps has been used to generate figures included in this report for illustrative purposes only.

The Crashmap Pro Collision Analysis System v1.29 has been utilised to carry out a road traffic incident review.

Information has been obtained from Greater Manchester's Open Data Infrastructure Mapping tool (GMODIN).

Extract of CIHT 'Planning for Walking' (April 2015) has been included in this report.

OpenRouteService has been used to generate figures included in this report for illustrative purposes only.

Information has been obtained from the TfGM Cycle Network Map and Tram Network Map.

Extract of CIHT 'Buses in Urban Developments' (January 2018) has been included in this report.

Public transport information has been obtained from TfGM.

The TRICS database v7.10.1 has been used in this report to calculate traffic generations.

Contents

1. Introduction.....	5
2. Planning Policy and Context	6
3. Existing Situation	10
4. Proposed Development.....	13
5. Accessibility by Sustainable Modes of Transport.....	14
6. Multimodal Trip Generations	22
7. Summary and Conclusions	24

List of Tables

Table 1 – Summary of slight incidents	12
Table 2 – Bus Service Summary.....	20
Table 3 – TRICS search parameters	22
Table 4 – Estimated Multimodal Trip Rates	22
Table 5 – Estimated vehicle trip generations	23

List of Figures

Figure 1 – Site Location [GoogleMyMaps].....	10
Figure 2 – Crashmap Pro extract [CrashmapPro]	11
Figure 3 – Greater Manchester Accessibility Level Map [GMODIN]	14
Figure 4 – 1km and 2km walking isochrones [OpenRouteService]	15
Figure 5 – 8km Cycling isochrone [OpenRouteService]	17
Figure 6 – Transport for Greater Manchester Cycle Network Map [TfGM].....	18
Figure 7 – Recommended Maximum Walking Distances to Bus Stops.....	19
Figure 8 – Location of the nearest bus stops [GoogleMyMaps].....	19

List of Appendices

Appendix A	
Site Plan	
Appendix B	
Crashmap Pro Report (2017-2021)	
Appendix C	
Full TRICS Output	

1. Introduction

- 1.1 Sanderson Associates Consulting Engineers has been appointed by Deal A Property Ltd to prepare a Transport Statement to support a full planning application for 9no. Residential apartments with associated parking at Robin Hood Street, Cheetham Hill, Manchester.
- 1.2 This Transport Statement has been prepared to support the current planning application and in accordance with the Planning Practice Guidance 'Transport evidence bases in plan making and decision taking' addresses key transport issues including:
- The local highway network and its road traffic accident record.
 - The access arrangements to the proposed development.
 - The proposed development and its operational characteristics.
 - The impact of the development on the local highway network in terms of highway safety and capacity at the site access.
 - Accessibility of the site in relation to sustainable transport and local facilities and means to encourage the use of sustainable transport.

2. Planning Policy and Context

2.1 National Planning Policy

2.1.1 In July 2021 the latest National Planning Policy Framework (NPPF) was published, which sets out the Government's planning policies for England and how these are expected to be applied.

2.1.2 In considering development proposals NPPF paragraph 110 states that;

'In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

a) appropriate opportunities to promote sustainable transport modes can be – or have been taken up, given the type of development and its location;

b) safe and suitable access to the site can be achieved for all users;

c) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code 46; and

d) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.'

2.1.3 NPPF paragraph 111 states:

'Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.'

2.1.4 NPPF paragraph 112 states in relation to paragraph 111 that:

'Within this context, applications for development should:

a) give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;

b) address the needs of people with disabilities and reduced mobility in relation to all modes of transport;

c) create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;

d) allow for the efficient delivery of goods, and access by service and emergency vehicles; and

e) be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.'

2.1.5 NPPF paragraph 113 concludes that:

'All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed.'

2.2 National Planning Practice Guidance

2.2.1 The National Planning Practice Guidance (NPPG) brings together advice on the National Planning Policy Framework. It was launched in March 2014 and coincided with the cancelling of the majority of Government Circulars which had previously given guidance on many aspects of planning.

2.2.2 In relation to Transport NPPG provides the following guidance:

- Transport Evidence Bases in Plan Making and Decision Taking - March 2015
- Travel Plans, Transport Assessments and Statements - March 2014

2.2.3 NPPG Transport evidence bases in plan making and decision taking sets out the key issues that local planning authorities should consider in developing the transport base to support the Local Plan, including:

- assess the existing situation and likely generation of trips over time by all modes and the impact on the locality in economic, social and environmental terms;
- assess the opportunities to support a pattern of development that, where reasonable to do so, facilitates the use of sustainable modes of transport;
- highlight and promote opportunities to reduce the need for travel where appropriate;
- identify opportunities to prioritise the use of alternative modes in both existing and new development locations if appropriate;
- consider the cumulative impacts of existing and proposed development on transport networks;
- assess the quality and capacity of transport infrastructure and its ability to meet forecast demands;
- identify the short, medium and long-term transport proposals across all modes.

2.2.4 NPPG Travel Plans, Transport Assessments and Statements sets out the key principles that should be taken into account in preparing a Transport Statement. NPPG states that Transport Statements are important as they can positively contribute to:

- encouraging sustainable travel;
- lessening traffic generation and its detrimental impacts;
- reducing carbon emissions and climate impacts;
- creating accessible, connected, inclusive communities;
- improving health outcomes and quality of life;
- improving road safety; and
- reducing the need for new development to increase existing road capacity or provide new roads.

2.3 Manchester City Council Core Strategy 2012-2027

2.3.1 The Core Strategy was adopted by Manchester City Council on 11th July 2012. It is the key document in Manchester's Local Development Framework and covers a period of 15 years from 2012 to 2027.

2.3.2 For the purpose of this Transport Statement, the following policies are considered of relevance:

2.3.3 Policy CC5: Transport.

The Transport Strategy for Manchester City Centre will be delivered to ensure that transport is managed in a way which supports the projected growth of the City Centre.

Developers should work with public transport providers to ensure that all users are able to access development by sustainable means, especially taking account of times when developments are likely to be busiest.

Proposals will be supported that improve pedestrian safety, improve air quality and increase the scope for accessible public realm improvements, for example improvements to:

- *remove buses and private cars from St Peter's Square*
- *create a new pedestrian priority zone initially the area bounded by Deansgate, Peter Street/ Oxford Street, Portland Street, Piccadilly North, Manchester Arndale, Corporation Street and Exchange Square*
- *close Victoria Street in the Medieval Quarter to traffic and create a new public realm around the Cathedral and Chethams.*

2.3.4 Policy T1: Sustainable Transport states that:

'To deliver a sustainable, high quality, integrated transport system to encourage modal shift away from car travel to public transport, cycling and walking, to support the needs of residents and businesses and to prepare for carbon free modes of transport,'

2.4 Greater Manchester Transport Strategy 2040; Local Transport Plan 4 (LTP4)

2.4.1 Greater Manchester Transport Strategy 2040 (January 2021) is led by Transport for Greater Manchester (TfGM) on behalf of the Greater Manchester Combined Authority (GMCA) and the Greater Manchester Local Enterprise Partnership (GMLEP).

2.4.2 The 2040 Vision is supported by policies and proposals for sustainable transport and regeneration. Seven mutually reinforcing principles are set out to improve Greater Manchester's transport system to ensure that it meets the needs of all customers:

- Integrated
- Inclusive
- Healthy
- Environmentally Responsible
- Reliable

- Safe and Secure
- Well Maintained and Resilient

2.4.3 This Transport Statement demonstrates that the development is sustainable, can be accessed by all people and the residual cumulative traffic impact is not severe. The development is therefore in accordance with transport principles set out in NPPF.

3. Existing Situation

3.1 Site Location

- 3.2 The site is located approximately 3km north east from Manchester city centre in the area of Cheetham Hill. The site is bound by St Marks Lane to the north, a vehicle repair shop and restaurant to the east, Robin Hood Street to the south and an area of maintained grassland and Churchyard to the west of the site.
- 3.3 The site location is shown below in Figure 1 and the full site plan can be found at **Appendix A**.

Figure 1 – Site Location

[GoogleMyMaps]



- 3.3.1 The site is currently an area of abandoned grassland surrounded by gated fencing. There are also signs stating CCTV is present to prevent fly tipping.
- 3.3.2 Vehicle access to the site is provided from two separate locations, from Robin Hood Street and St Mark's Lane. Both access points are currently blocked and gated to prevent vehicles entering.

3.4 Local Highway Network

- 3.4.1 Robin Hood Street is an unclassified road with an approximate carriageway width of 4.5m and is subject to a 30mph speed limit. This road is street lit and has footways on both sides of the carriageway. There are vehicular bollards in the footway on the northern side.

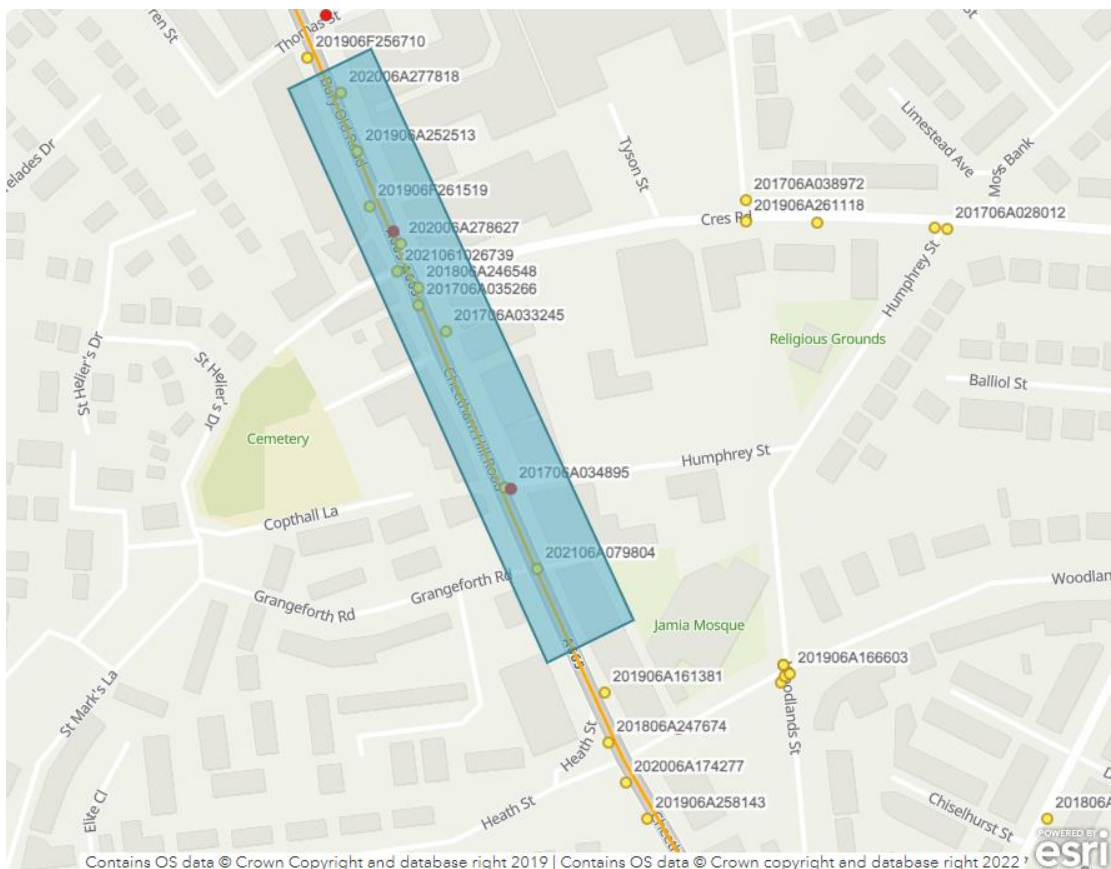
3.4.2 At the northern side of the site, St Mark's Lane is approximately 3.5m wide, footways are present on both sides of the carriageway for the first 37m on the southern side of the carriageway and 50m on the northern side of the carriageway. A Traffic Regulation Order comprising of double yellow lines on both sides of the carriageway is present, preventing waiting at any time. Towards the end of the carriageway it widens to approximately 10m allowing vehicles to turn around, as from this point the carriageway narrows and bollards are in place preventing vehicle access. Street lighting is also present along this road.

3.5 Accident History

3.5.1 The Crashmap Pro database has been reviewed in order to identify any existing accident trends on the local highway network. Figure 2 below identifies all recorded incidents within the latest 5 years of available data (2017-2021) and the severity of each event (yellow dots are slight incidents and red dots are serious incidents). The full Crashmap Pro report can be found at **Appendix B**.

Figure 2 – Crashmap Pro extract

[CrashmapPro]



3.5.2 Within the study area from 2017-2021 there have been 12 incidents of which 10 were slight and 2 were serious. The slight incidents are summarised in Table 1 below, all of which occurred on Cheetham Hill Road/A665.

Table 1 – Summary of slight incidents

Reference	Severity	Year	Description
2021061026739	Slight	2021	A vehicle in the act of turning right hit a pedestrian crossing the carriageway from the driver's offside.
201706A035266	Slight	2017	Collision between a vehicle changing lane to the right (including slip road) and a motorcycle changing lane to the right (including slip road).
201706A033245	Slight	2017	Collision between a vehicle changing lane to the left and a pedal cyclist proceeding normally along the carriageway.
202006A277818	Slight	2020	Collision between two vehicles, one proceeding normally, not on a bend and one parked in the carriageway.
201906A252513	Slight	2019	Collision between a bus or coach slowing down or stopping and a pedestrian walking in the carriageway, facing traffic.
201706A031156	Slight	2017	Collision between a vehicle in the act of turning right and a motorcycle proceeding normally along the carriageway, not on a bend.
201806A246548	Slight	2018	Collision between a vehicle proceeding normally along the carriageway and a pedestrian crossing on a pedestrian crossing facility.
202006A278627	Slight	2020	Collision between two vehicles with one proceeding normally along the carriageway, not on a bend and one waiting to proceed normally but is held up.
201906F261519	Slight	2019	Collision between a vehicle proceeding normally along the carriageway, not on a bend and a vehicle moving off.
202106A079804	Slight	2021	Collision between two vehicles proceeding normally along the carriageway, not on a bend.

- 3.5.3 A serious incident ref 201706A034895 occurred in September 2017 at 17:15 on the A665 in raining and daylight conditions. The collision occurred at a crossroads with a vehicle in the act of turning right and a motorcycle proceeding normally along the carriageway, not on a bend. The motorcyclist sustained serious injury.
- 3.5.4 A serious incident ref 201706A037994 occurred in December 2017 at 01:28 on the A665 in dark conditions with street lights present and lit. The incident occurred at a pelican, puffin, toucan or similar non-junction pedestrian light crossing. The collision involved three vehicles proceeding normally along the carriageway, not on a bend and a pedestrian whose movements are unknown.
- 3.5.5 From the above analysis no trends in the types of accidents has been found that suggests there are deficiencies in the local highway network in proximity to the site. These incidents are more likely to be due to individual driver error and so the proposed development is unlikely to exacerbate the prevailing conditions.

4. Proposed Development

4.1 Overview

4.1.1 The proposed development comprises the erection of a part-two and part-three storey residential block consisting of 9no. residential apartments. These comprise of:

- 1no. X 1 bed apartment
- 8no. X 2 bed apartments

4.1.2 An illustrative site layout is provided at **Appendix A**.

4.2 Access

4.2.1 Vehicle access into the site will be provided from St Marks Lane at the northern side of the site via a new access point leading to the off street parking area of the development. There are four pedestrian access points into the site, one coming from Robin Hood Street at the south side of the site, one at the eastern side of the site and a two points at the north of the site coming from the off street parking area and accessed by St Marks Lane. One of these leads directly into the cycle storage room.

4.3 Parking

4.3.1 Manchester City Councils Core Strategy does not set any parking standards for residential developments and considers each site on its own merit. This residential development proposes a total of 9 off street parking spaces within the site for residents. This is considered acceptable to meet the demand for parking from residents due to the highly accessible area in which the development is located. Further information is detailed in section 5 below.

4.3.2 Secure cycle parking facilities are also available with the capacity for 16 cycles in a cycle room on the ground floor of the development.

4.4 Servicing

4.4.1 Servicing will take place from the northern side of the site from St Mark's Lane and also using the car park area within the site.

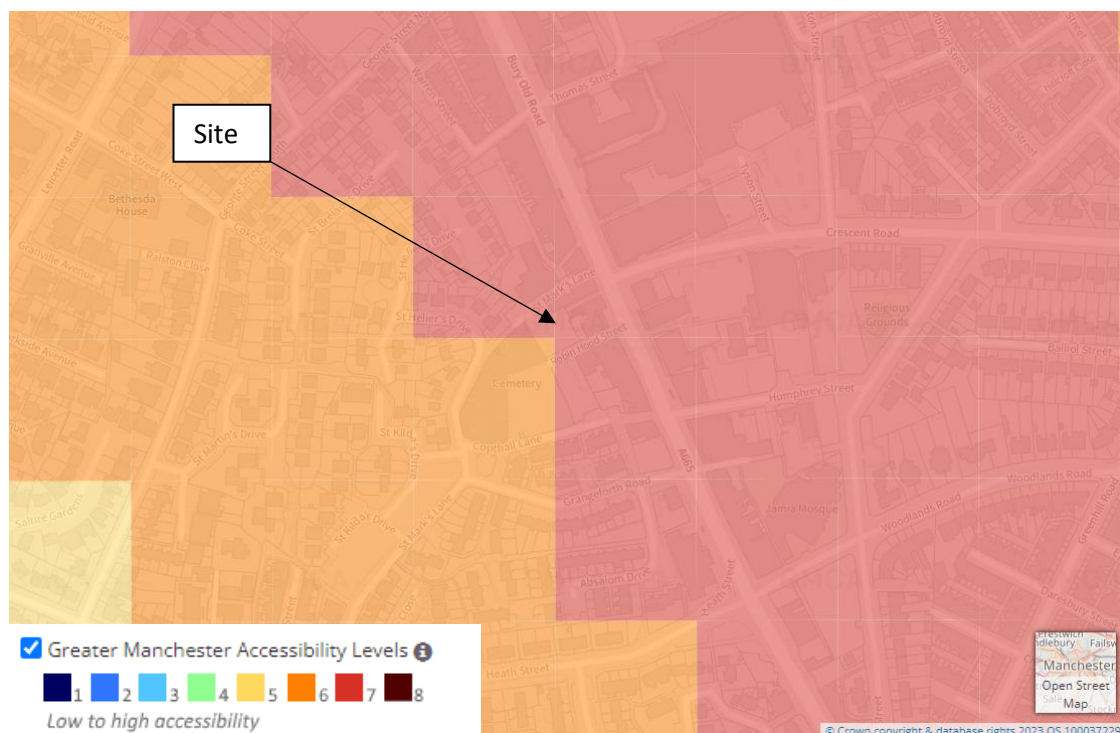
5. Accessibility by Sustainable Modes of Transport

5.1 Overview

- 5.1.1 This section of the report seeks to demonstrate the accessibility of the site by sustainable travel modes; this includes both Active Transport (walking and cycling) and Public Transport (bus and rail travel).
- 5.1.2 Greater Manchester's Open Data Infrastructure Mapping tool (GMODIN), an extract of which is provided at Figure 3, shows that the site has an accessibility level rating of '7', this is the second highest achievable level of accessibility.

Figure 3 – Greater Manchester Accessibility Level Map

[GMODIN]



5.2 Accessibility on Foot

- 5.2.1 The Planning for Walking Guidance (2015), published by CIHT highlights that “Across Britain about 80 per cent of journeys shorter than 1 mile are made wholly on foot – something that has changed little in 30 years. For journeys that are 1 to 2 miles long, 26 per cent are made on foot (NTS, 2012).”
- 5.2.2 CIHT notes that people will be willing to walk further to reflect a greater perceived quality or importance of a service or amenity, for example rail services. The report does not provide a definitive view on distances, however, the report makes reference to the IHT publication “Providing for Journeys on Foot,” (2000) which suggests a maximum walking distance for commuting, school and sightseeing as 2000m (24-minute walk).

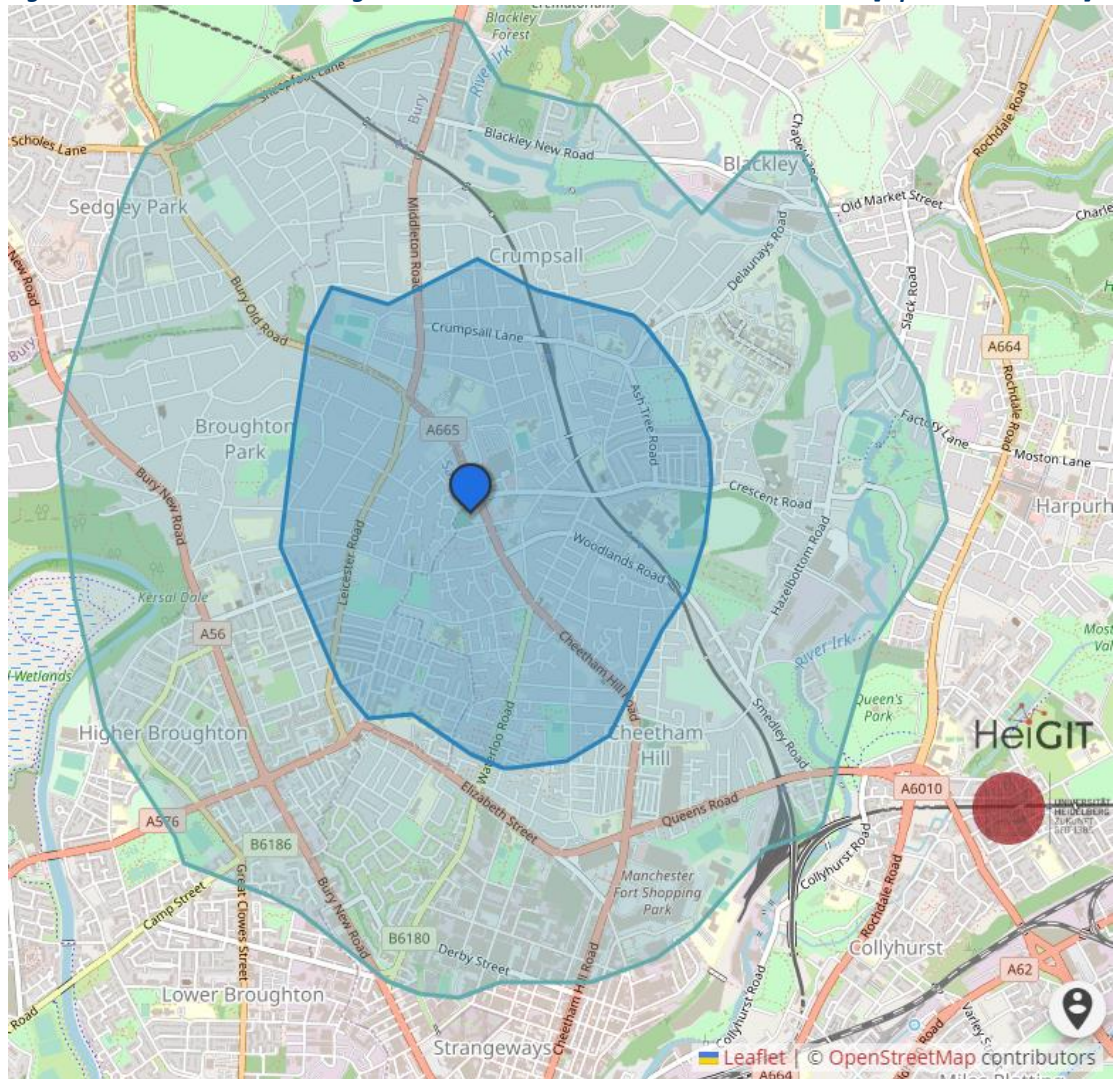
5.2.3 It is also important to consider the routes that would be taken to get to these locations. Building Sustainable Transport into New Developments (DfT, 2008) gives the following advice on pedestrian catchment areas:

“Walking neighbourhoods are typically characterised as having a range of facilities within 10 minutes’ walking distance (around 800 metres). However, the propensity to walk or cycle is not only influenced by distance but also the quality of the experience; people may be willing to walk or cycle further where their surroundings are more attractive, safe and stimulating.”

5.2.4 Figure 4 identifies the 1000m and 2000m walking isochrone from the site which indicates areas that should be easily accessible from the site on foot.

Figure 4 – 1km and 2km walking isochrones

[OpenRouteService]



- Supermarkets
- Banks
- ATMs
- Clothing shops
- Vehicle repair garages
- Dry cleaners
- North Manchester College
- Mosque
- King David High School
- Primary Schools
- Abraham Moss Leisure Centre
- Library
- Crumpsall Park
- Crumpsall and Abraham Moss Tram Stops
- Church
- Pharmacy
- Hairdressers
- Post Office
- Cheetham Hill Cricket Club

5.2.6 Within 2km walking distance facilities include:

- North Manchester General Hospital
- Broughton Hub Youth Centre
- Enterprise Car and Van Hire
- Crumps and Cheetham Model Allotments
- Harpurhey Ponds
- Bowker Vale Tram Stop

5.2.7 This shows that there are many amenities for residents in the surrounding areas that can be accessed within a comfortable walking distance. It is also important to note that the areas surrounding the site are street lit with footways on both sides of the carriageway, further facilitating and encouraging travel by walking.

5.3 **Accessibility by Cycle**

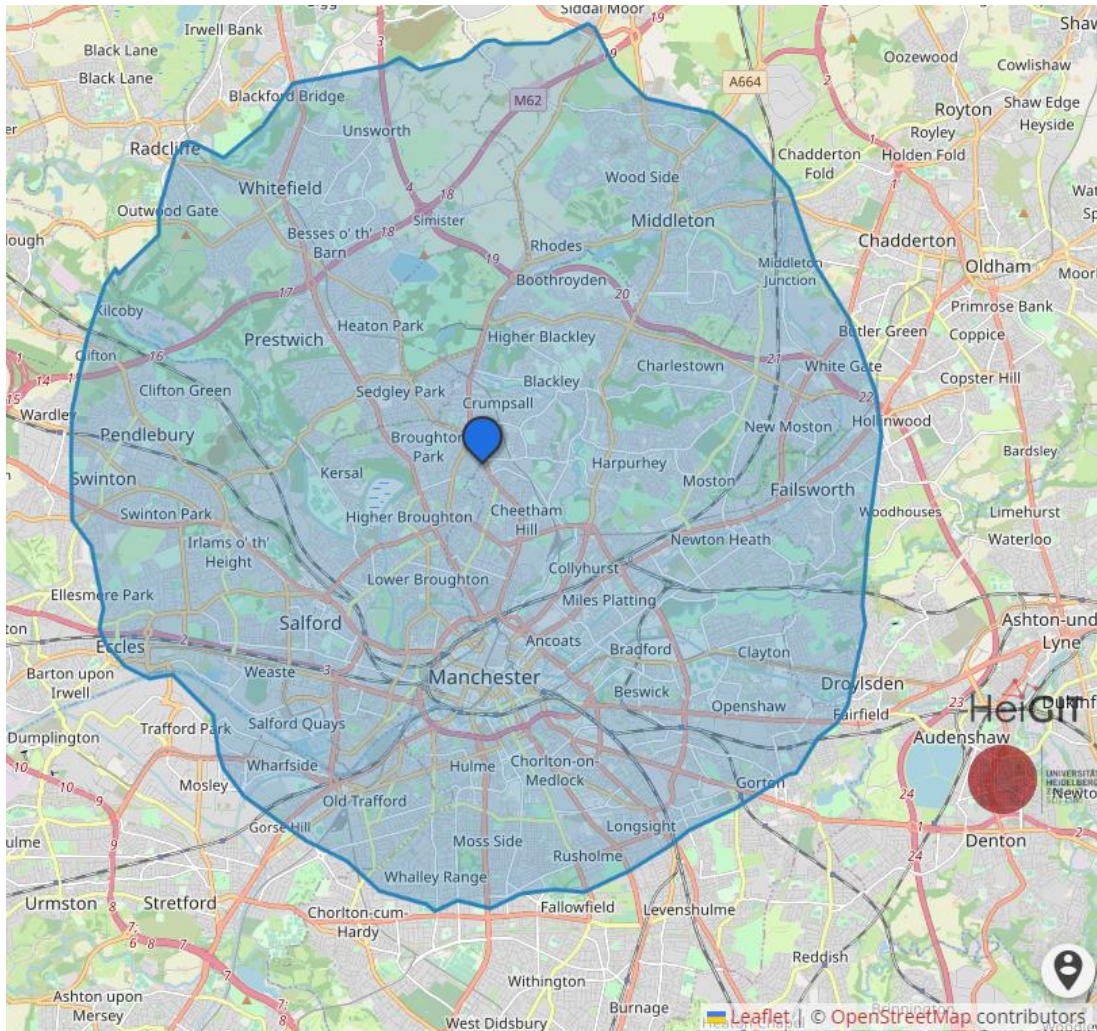
5.3.1 Like walking, cycling can play an important role in reducing congestion, improving accessibility and reducing pollution. CIHT's Planning for Cycling (2014) states that:

"The majority of cycling trips are for short distances, with 80% being less than five miles and with 40% being less than two miles. However, the majority of trips by all modes are also short distances (67% are less than five miles, and 38% are less than two miles); therefore, the bicycle is a potential mode for many of these trips."

5.3.2 Figure 5 illustrates an 8km cycling isochrone from the site and provides a general indication of the extent of the surrounding area which is accessible by cycle. These areas represent a catchment from which residents may comfortably travel.

Figure 5 – 8km Cycling isochrone

[OpenRouteService]



5.4 Figure 5 shows that many areas including Manchester city centre can all be accessed within an 8km cycle from the proposed site.

5.4.1 Figure 6 is an extract of Transport for Greater Manchester's Transport map. This map shows that within Manchester City Centre most roads have a speed limit of 20mph. This can make cycling more appealing and allows for safer navigation around the city centre. Leading away from the city centre a number of cycle routes link the city centre to places further out, these are either completely separate from traffic or segregated physically from the road.

5.4.2 An on road cycle route runs directly passed the site on Cheetham Hill road running south for approximately 1.8km. This on carriageway cycle lane ends approximately 1km away from Manchester Victoria station and so could be a viable option for residents who may travel to work by rail.

Figure 7 – Recommended Maximum Walking Distances to Bus Stops

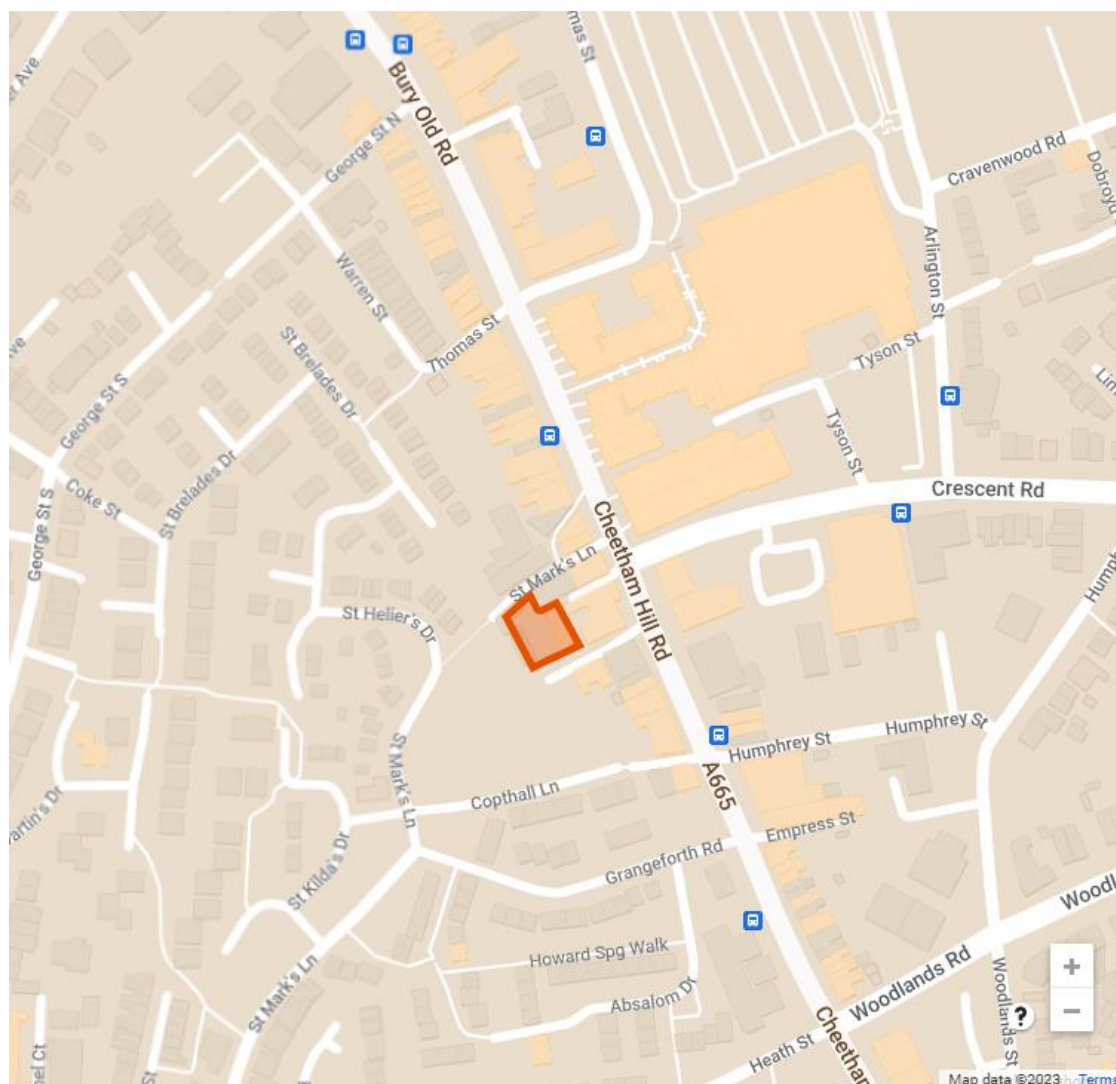
Situation	Maximum walking distance
Core bus corridors with two or more high-frequency services	500 metres
Single high-frequency routes (every 12 minutes or better)	400 metres
Less frequent routes	300 metres
Town/city centres	250 metres

5.6.2 For new housing developments, Stagecoach’s report *Bus Services and New Residential Developments* (2018) strongly recommends that affordable housing, and higher-density developments are all located within 400m of a bus stop, and preferably closer.

5.6.3 The closest bus stops to the site are located on Cheetham Hill Road/A665, at a distance of approximately 100m and 120m from the site. Figure 8 shows the location of the nearest bus stops.

Figure 8 – Location of the nearest bus stops

[GoogleMyMaps]



5.6.4 These bus stops have seating, shelter and timetables available for users. Table 2 below gives a summary of the services available from these stops.

Table 2 – Bus Service Summary

Number	Route	Approximate Peak Frequency		
		Mon – Sat Daytime	Mon- Sat Evening	Sunday
41	Middleton – Manchester City Centre - Sale	20 mins	30/60 mins	30 mins
52	Fairsworth – Moston – The Trafford Centre	10 mins	30/60 mins	30 mins
59	Manchester City Centre – Chadderton – Oldham Mumps	10/12 mins	20/60 mins	20/30 mins
135	Bury – Whitefield- Picadilly Gardens	10 mins	20 mins	10 mins
151	Ashton-under-Lyne – Moston – Higher Crumpsall	60 mins	No Service	No Service
717	Higher Blackley – Bowker Vale - Strangeways	07:54, 15:17 only No Service Sat	No Service	No Service
721	Charlestown – Higher Crumpsall - Strangeways	07:59, 15:34 only No Service Sat	No Service	No Service

5.6.5 Table 2 shows that many areas around Manchester are accessible by bus which run at frequent times.

5.7 Accessibility by Tram

5.7.1 The closest tram stop to the development is located within a 1km walking distance from the site is Abraham Moss. This station provides direct services from Bury to Altrincham and Bury to Piccadilly, with trams every 12 minutes providing access throughout Manchester from zone 1 to zone 4.

5.8 Accessibility by Rail

5.8.1 The closest rail station to the site is Manchester Victoria which is located approximately 3km from the site. Although this is outside the recommended acceptable walking distance, bus services 41, 59 and 135 are available close to the site and stop close to the station (at stops Victoria Rail Station NU, NW and Printworks Stop NP). This is approximately a 14 minute bus journey from the site and stops close to Manchester Victoria Station.

5.8.2 This station provides services from both Northern Rail and Transpennine Express and runs to many places such as Blackburn, Leeds, Liverpool, Manchester Airport, Newcastle and Hull with frequent services.

5.8.3 Manchester Victoria station has facilities such as accessible ticket machines, toilets, seating, step-free access to all platforms and CCTV. The station also provides 38 spaces for cycle storage in the form of stands which are also protected by CCTV.

- 5.8.4 Bikes are allowed to be taken on Northern trains, free of charge on a first come first served basis with no need to book in advance. On Transpennine Express trains bikes that cannot be folded need to book a space, which can be done up to 15 minutes before travelling.
- 5.8.5 Due to the cycle infrastructure in place on the route between the site and Manchester Victoria station as stated previously in section 5.4.2 the 38 available cycle parking spaces at the station and the availability to bring cycles on trains may be useful to residents using rail travel for work or leisure.

5.9 Summary

- 5.9.1 The site is located within walking and cycling distance of a range of amenities and is surrounded by a quality pedestrian and cycle infrastructure which will encourage the uptake of active travel. The local public transport services are frequent and provide a connection between the site and many areas around Manchester and further afield. The accessibility of the site is considered sufficient to support a residential development not excessively dependent on the use of private car.

6. Multimodal Trip Generations

- 6.1 In order to estimate the multimodal trip generation potential of the proposed development, trip rates have been derived using the TRICS 7.10.1 database. The search parameters used are shown in Table 3.

Table 3 – TRICS search parameters

Land Use	Trip Rate Selection Criteria
Residential	→ Land Use Category: 'Residential - Flats Privately Owned'; → Multimodal trip rate surveys; → Number of units: 9 to 45; → The region of Greater London and Ireland were excluded; → Saturday and Sunday surveys were excluded; and, → Neighbourhood centre sites were excluded.

- 6.1.1 Table 4 below provides details of the weekday AM and PM peak hour multimodal trip rates per unit along with the corresponding modal percentage split and generated trips for the proposed 9 flats. The full TRICS output can be found at **Appendix C**.

Table 4 – Estimated Multimodal Trip Rates

Time Period	Mode of Travel	Trip Rate	Modal Split	Generations
AM Peak 08:00-09:00	Pedestrians	0.195	18.8%	2
	Cyclists	0.075	7.2%	1
	Public Transport Users	0.275	26.5%	2
	Vehicle Occupants	0.489	47.2%	4
	Total People Trips	1.036	100.0%	9
PM Peak 17:00-18:00	Pedestrians	0.245	27.6%	2
	Cyclists	0.036	4.1%	0
	Public Transport Users	0.249	28.0%	2
	Vehicle Occupants	0.360	40.5%	3
	Total People Trips	0.888	100.0%	8

- 6.1.2 Based on the TRICS data the development could be expected to generate 52.5% of trips by walking, cycling and public transport modes in the AM peak hour and 59.7% in the PM peak hour. Due to the large amount of public transport facilities in the vicinity of the site and the small number of trip generations, the demand for walking, cycling and public transport is predicted to be modest and at a level which is unlikely to have a detrimental impact within the existing infrastructure provision.
- 6.1.3 In terms of vehicle trip generations Table 5 shows the estimated arrivals and departures to the site in the AM and PM peak periods.

Table 5 – Estimated vehicle trip generations

Time Period	Trip Rates		Generations		
	Arrivals	Departures	Arrivals	Departures	Total
AM Peak 08:00-09:00	0.089	0.244	1	2	3
PM Peak 17:00-18:00	0.173	0.111	2	1	3

6.1.4 As can be seen from above the development could be expected to generate in the order of 3 vehicle movements two-way in both the AM and PM peak hours.

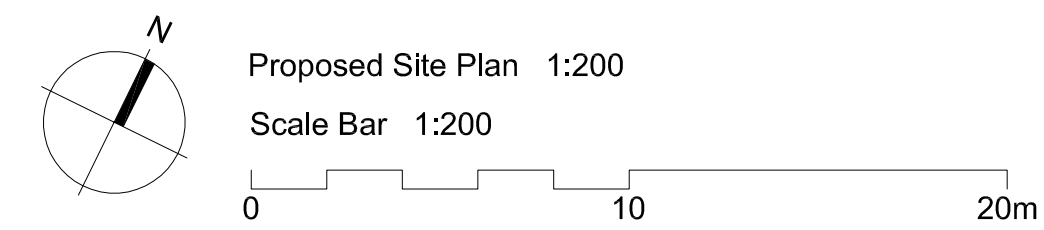
7. Summary and Conclusions

- 7.1 Sanderson Associates Consulting Engineers has been appointed by Deal A Property Ltd to prepare a Transport Statement to support a full planning application for 9no. Residential apartments with associated parking at Robin Hood Street, Cheetham Hill, Manchester.
- 7.2 In the accident analysis no trends in the types of accidents has been found that suggests there are deficiencies in the local highway network in proximity to the site. These incidents are more likely to be due to individual driver error and so the proposed development is unlikely to exacerbate the prevailing conditions.
- 7.3 Vehicle access into the site will be provided from St Marks Lane at the northern side of the site via a new access point leading to the off street parking area of the development. There are four pedestrian access points into the site, one coming from Robin Hood Street at the south side of the site, one at the eastern side of the site and two points at the north of the site coming from the off street parking area and accessed by St Marks Lane. One of these leads directly into the cycle storage room.
- 7.4 A total of 9 off street parking spaces are to be provided at the site as well as cycle storage facilities with a capacity for 16 cycles. These provisions are considered to be sufficient to satisfy the demand for vehicle and cycle parking from residents.
- 7.5 The site is considered to be sustainably located, providing a good level of accessibility to local amenities by both 'active' and public transport modes of travel. The site is located in an area with the second highest accessibility level shown on the Greater Manchester Open Data Infrastructure Map.
- 7.6 The predicted level of additional demand for walking, cycling and public transport generated by the development proposals is modest and can be readily accommodated within the existing highway infrastructure.
- 7.7 In terms of vehicle movements, the overall development could potentially generate in the order of 3 vehicle trips (two-way) in the AM and PM peak periods. This generation is minimal and so it is expected the proposed development will have no visible impact on the local highway network in peak periods.
- 7.8 The conclusion drawn from this assessment is that the residual cumulative impact of the development proposals could not be classed as 'severe' under the terms of the NPPF paragraph 111. It is therefore concluded that there is no highway related reason why the development should not gain planning approval.



Appendix A

Site Plan



All dimensions are to be checked on site, any discrepancies are to be reported to the Architect before work commences. Do not scale from this drawing.		
This drawing is to be read in conjunction with all relevant consultants and specialists drawings / documents, any discrepancies are to be reported to the Architect before the affected work commences.		
All structural components shown are indicative only. Details / calculations of structural members are to be provided by the Structural Engineer.		
This drawing is copyright.		
A	First Issue	25/08/2022
B	Pre-application Submission	07/09/2022
C	Amendments following pre-application comments from LPA on 21/09/2022	19/10/2022
D	Amendments following pre-application comments from LPA on 21/11/2022	15/12/2022
E	Amendments following pre-application comments from LPA on 21/11/2022	09/01/2023
F	Amendments for submission of Full Planning Application	06/04/2023

T+A Tang & Associates Ltd
Chartered Architects
Tel : 0161 877 9587 10/F, 1 City Approach, Albert Street,
e-mail: barrytang@tangassociates.co.uk Eccles,
Manchester, M30 0BS, UK

Client:
Mrs Zahida Chaudhry

Project:
Robin Hood Street, Cheetham Hill, Manchester
M8 9JG

Drawing Title:
Proposed Site Plan

Scale: 1:200 @ A1 Date: August 2022

Drawing No: 9808/102 Revision: F



Appendix B

Crashmap Pro Report (2017-2021)



Crash Report

Area of Interest (AOI) Information

Area : 13,469.03 m²

Jun 23 2023 11:12:09 British Summer Time



Summary

Name	Count	Area(m²)	Length(m)
Crashes	12	N/A	N/A

Crashes

#	Carriageway_Hazards	Severity	Officer_Attended	Accident_DateTime	Year	Number_of_vehicles	Number_of_casualties	Easting
1	None	Slight	Police officer attended crash scene	September 14, 2017	2017	2	1	383840
2	None	Slight	Police officer attended crash scene	March 1, 2021	2021	1	1	383830
3	None	Slight	Police officer attended crash scene	April 26, 2017	2017	2	1	383853
4	None	Serious	Police officer attended crash scene	September 12, 2017	2017	2	1	383884
5	None	Slight	No officer attended crash scene	November 27, 2020	2020	2	1	383803
6	Pedestrian in carriageway - not injured	Slight	Police officer attended crash scene	January 9, 2019	2019	1	1	383811
7	None	Slight	Police officer attended crash scene	May 26, 2017	2017	2	1	383881
8	None	Serious	Police officer attended crash scene	December 3, 2017	2017	3	1	383828
9	None	Slight	No officer attended crash scene	July 20, 2018	2018	1	1	383840
10	None	Slight	Police officer attended crash scene	December 21, 2020	2020	2	4	383832
11	None	Slight	No officer attended crash scene	June 1, 2021	2021	2	1	383897
12	None	Slight	No officer attended crash scene	September 6, 2019	2019	2	1	383817

#	Northing	Highway_Authority	Road_Number	Weather_conditions	Road_Type	Road_surface	Speed_Limit	Light_conditions
1	401730	Manchester	A665	Fine without high winds	Single carriageway	Dry	30	Daylight: regardless of presence of streetlights
2	401746	Salford	A665	Fine without high winds	Single carriageway	Dry	30	Daylight: regardless of presence of streetlights
3	401717	Manchester	A665	Fine without high winds	One way street	Dry	30	Daylight: regardless of presence of streetlights
4	401642	Manchester	A665	Raining without high winds	Single carriageway	Wet or Damp	30	Daylight: regardless of presence of streetlights
5	401831	Manchester	A665	Other	Single carriageway	Dry	30	Darkness: street lights present and lit
6	401803	Salford	A665	Fine without high winds	Single carriageway	Dry	30	Darkness: street lights present and lit
7	401643	Manchester	A665	Unknown	Dual carriageway	Dry	30	Daylight: regardless of presence of streetlights
8	401765	Manchester	A665	Fine without high winds	Single carriageway	Dry	30	Darkness: street lights present and lit
9	401738	Manchester	A665	Unknown	Single carriageway	Dry	30	Daylight: regardless of presence of streetlights
10	401759	Manchester	A665	Raining without high winds	Single carriageway	Wet or Damp	30	Darkness: street lights present and lit
11	401604	Manchester	A665	Unknown	Single carriageway	Dry	30	Darkness: street lights present and lit
12	401777	Salford	A665	Raining without high winds	Single carriageway	Wet or Damp	30	Darkness: street lights present and lit

#	Junction_detail	Pedestrian_Crossing	Involved_pedalcycle	Involved_Motorcycle	Pedestrian_casualty	Child_casualty	Pedal_cycleuser_casualty	Motorcycle_user_casualty
1	T or staggered junction	Pedestrian phase at traffic signal junction	0	1	0	0	0	1
2	Multiple junction	Pedestrian phase at traffic signal junction	0	0	1	0	0	0
3	T or staggered junction	No physical crossing facility within 50 metres	1	0	0	0	1	0
4	Crossroads	No physical crossing facility within 50 metres	0	1	0	0	0	1
5	Not at or within 20 metres of junction	No physical crossing facility within 50 metres	0	0	0	0	0	0
6	Not at or within 20 metres of junction	No physical crossing facility within 50 metres	0	0	1	0	0	0
7	T or staggered junction	No physical crossing facility within 50 metres	0	1	0	0	0	1
8	Not at or within 20 metres of junction	Pelican, puffin, toucan or similar non-junction pedestrian light crossing	0	0	0	0	0	0
9	T or staggered junction	Pedestrian phase at traffic signal junction	0	0	1	0	0	0
10	T or staggered junction	Pedestrian phase at traffic signal junction	0	0	0	0	0	0
11	Other junction	No physical crossing facility within 50 metres	0	0	0	0	0	0
12	Not at or within 20 metres of junction	No physical crossing facility within 50 metres	0	0	0	0	0	0

#	Involved_car	Involved_goodsvehicle	Involved_Bus	Involved_young_driver	Local_Authority_District	Junction_control	Is_Provisional	Is_Amended	Web_Link	Count
1	1	0	0	0	Manchester City	Auto traffic signal	No	No	https://www.crashmap.co.uk/reports/prorereportservice?reportId=201706A035266	1
2	1	0	0	0	Salford City	Auto traffic signal	No	No	https://www.crashmap.co.uk/reports/prorereportservice?reportId=2021061026739	1
3	1	0	0	1	Manchester City	Give way or uncontrolled	No	No	https://www.crashmap.co.uk/reports/prorereportservice?reportId=201706A033245	1
4	1	0	0	1	Manchester City	Give way or uncontrolled	No	No	https://www.crashmap.co.uk/reports/prorereportservice?reportId=201706A034895	1
5	1	0	0	1	Manchester City	Not Applicable	No	No	https://www.crashmap.co.uk/reports/prorereportservice?reportId=202006A277818	1
6	0	0	1	0	Salford City	Not Applicable	No	No	https://www.crashmap.co.uk/reports/prorereportservice?reportId=201906A252513	1
7	1	0	0	0	Manchester City	Give way or uncontrolled	No	No	https://www.crashmap.co.uk/reports/prorereportservice?reportId=201706A031156	1
8	1	0	0	1	Manchester City	Not Applicable	No	No	https://www.crashmap.co.uk/reports/prorereportservice?reportId=201706A037994	1

9	1	0	0	0	Manchester City	Auto traffic signal	No	No	https://www.crashmap.co.uk/reports/proreportservice?reportId=201806A246548	1
10	1	0	0	0	Manchester City	Auto traffic signal	No	No	https://www.crashmap.co.uk/reports/proreportservice?reportId=202006A278627	1
11	1	0	0	0	Manchester City	Give way or uncontrolled	No	No	https://www.crashmap.co.uk/reports/proreportservice?reportId=202106A079804	1
12	1	0	0	1	Salford City	Not Applicable	No	No	https://www.crashmap.co.uk/reports/proreportservice?reportId=201906F261519	1

Report produced from CrashMap Pro



Appendix C

Full TRICS Output

Calculation Reference: AUDIT-109307-230626-0624

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : C - FLATS PRIVATELY OWNED
 MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	HF HERTFORDSHIRE	2 days
05	EAST MIDLANDS	
	DY DERBY	1 days
08	NORTH WEST	
	MS MERSEYSIDE	2 days
09	NORTH	
	TW TYNE & WEAR	1 days
10	WALES	
	CO CONWY	1 days
11	SCOTLAND	
	EB CITY OF EDINBURGH	1 days

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

Primary Filtering selection:

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

Parameter: No of Dwellings
 Actual Range: 9 to 45 (units:)
 Range Selected by User: 6 to 50 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/15 to 11/05/22

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

Selected survey days:

Monday	3 days
Tuesday	2 days
Wednesday	2 days
Friday	1 days

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

Selected survey types:

Manual count	8 days
Directional ATC Count	0 days

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

Selected Locations:

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

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

Selected Location Sub Categories:

Development Zone	1
Residential Zone	6

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.

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	7 days - Selected
Servicing vehicles Excluded	1 days - Selected

Secondary Filtering selection:

Use Class:

C3	8 days
----	--------

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

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

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

Population within 5 miles:

50,001 to 75,000	1 days
125,001 to 250,000	4 days
250,001 to 500,000	2 days
500,001 or More	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	6 days
1.1 to 1.5	2 days

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

Travel Plan:

Yes	2 days
No	6 days

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

PTAL Rating:

No PTAL Present	8 days
-----------------	--------

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

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions
-----------------------	-----	--

LIST OF SITES relevant to selection parameters

1	CO-03-C-01 MOSTYN BROADWAY LLANDUDNO	BLOCKS OF FLATS	CONWY
	Edge of Town Centre Built-Up Zone Total No of Dwellings:	37	
	Survey date: MONDAY	26/03/18	Survey Type: MANUAL
2	DY-03-C-03 CAESAR STREET DERBY	BLOCKS OF FLATS	DERBY
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:	30	
	Survey date: WEDNESDAY	25/09/19	Survey Type: MANUAL
3	EB-03-C-01 MYRESIDE ROAD EDINBURGH CRAIGLOCKHART	BLOCKS OF FLATS	CITY OF EDINBURGH
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:	32	
	Survey date: TUESDAY	26/05/15	Survey Type: MANUAL
4	HF-03-C-01 HAYLING ROAD WATFORD SOUTH OXHEY	BLOCKS OF FLATS	HERTFORDSHIRE
	Edge of Town Residential Zone Total No of Dwellings:	22	
	Survey date: WEDNESDAY	09/06/21	Survey Type: MANUAL
5	HF-03-C-05 FERNDOWN ROAD WATFORD SOUTH OXHEY	BLOCKS OF FLATS	HERTFORDSHIRE
	Edge of Town Residential Zone Total No of Dwellings:	26	
	Survey date: MONDAY	07/06/21	Survey Type: MANUAL
6	MS-03-C-03 MARINERS WHARF LIVERPOOL QUEENS DOCK	BLOCK OF FLATS	MERSEYSIDE
	Suburban Area (PPS6 Out of Centre) Development Zone Total No of Dwellings:	9	
	Survey date: TUESDAY	13/11/18	Survey Type: MANUAL
7	MS-03-C-04 HOY DRIVE NEWTON-LE-WILLOWS EARLESTOWN	BLOCK OF FLATS	MERSEYSIDE
	Edge of Town Centre Residential Zone Total No of Dwellings:	24	
	Survey date: MONDAY	12/04/21	Survey Type: MANUAL
8	TW-03-C-01 CAULDWELL AVENUE WHITLEY BAY MONKESEATON	BLOCKS OF FLATS	TYNE & WEAR
	Edge of Town Residential Zone Total No of Dwellings:	45	
	Survey date: FRIDAY	15/10/21	Survey Type: MANUAL

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL TOTAL VEHICLES
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period
 Total People to Total Vehicles ratio (all time periods and directions): 2.80

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	8	28	0.044	8	28	0.151	8	28	0.195
08:00 - 09:00	8	28	0.089	8	28	0.244	8	28	0.333
09:00 - 10:00	8	28	0.142	8	28	0.107	8	28	0.249
10:00 - 11:00	8	28	0.102	8	28	0.164	8	28	0.266
11:00 - 12:00	8	28	0.133	8	28	0.124	8	28	0.257
12:00 - 13:00	8	28	0.107	8	28	0.102	8	28	0.209
13:00 - 14:00	8	28	0.107	8	28	0.133	8	28	0.240
14:00 - 15:00	8	28	0.071	8	28	0.116	8	28	0.187
15:00 - 16:00	8	28	0.133	8	28	0.093	8	28	0.226
16:00 - 17:00	8	28	0.227	8	28	0.116	8	28	0.343
17:00 - 18:00	8	28	0.173	8	28	0.111	8	28	0.284
18:00 - 19:00	8	28	0.133	8	28	0.098	8	28	0.231
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.461			1.559			3.020

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

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

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

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

Parameter summary

Trip rate parameter range selected:	9 - 45 (units:)
Survey date range:	01/01/15 - 11/05/22
Number of weekdays (Monday-Friday):	8
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.

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL CYCLISTS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	8	28	0.000	8	28	0.022	8	28	0.022
08:00 - 09:00	8	28	0.004	8	28	0.071	8	28	0.075
09:00 - 10:00	8	28	0.018	8	28	0.013	8	28	0.031
10:00 - 11:00	8	28	0.004	8	28	0.018	8	28	0.022
11:00 - 12:00	8	28	0.013	8	28	0.004	8	28	0.017
12:00 - 13:00	8	28	0.004	8	28	0.000	8	28	0.004
13:00 - 14:00	8	28	0.013	8	28	0.004	8	28	0.017
14:00 - 15:00	8	28	0.013	8	28	0.004	8	28	0.017
15:00 - 16:00	8	28	0.009	8	28	0.013	8	28	0.022
16:00 - 17:00	8	28	0.013	8	28	0.000	8	28	0.013
17:00 - 18:00	8	28	0.027	8	28	0.009	8	28	0.036
18:00 - 19:00	8	28	0.009	8	28	0.009	8	28	0.018
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.127			0.167			0.294

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

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	8	28	0.049	8	28	0.204	8	28	0.253
08:00 - 09:00	8	28	0.102	8	28	0.387	8	28	0.489
09:00 - 10:00	8	28	0.169	8	28	0.142	8	28	0.311
10:00 - 11:00	8	28	0.133	8	28	0.196	8	28	0.329
11:00 - 12:00	8	28	0.156	8	28	0.173	8	28	0.329
12:00 - 13:00	8	28	0.129	8	28	0.124	8	28	0.253
13:00 - 14:00	8	28	0.133	8	28	0.147	8	28	0.280
14:00 - 15:00	8	28	0.084	8	28	0.129	8	28	0.213
15:00 - 16:00	8	28	0.218	8	28	0.111	8	28	0.329
16:00 - 17:00	8	28	0.333	8	28	0.138	8	28	0.471
17:00 - 18:00	8	28	0.204	8	28	0.156	8	28	0.360
18:00 - 19:00	8	28	0.191	8	28	0.156	8	28	0.347
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.901			2.063			3.964

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

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	8	28	0.022	8	28	0.147	8	28	0.169
08:00 - 09:00	8	28	0.044	8	28	0.151	8	28	0.195
09:00 - 10:00	8	28	0.089	8	28	0.133	8	28	0.222
10:00 - 11:00	8	28	0.084	8	28	0.080	8	28	0.164
11:00 - 12:00	8	28	0.071	8	28	0.076	8	28	0.147
12:00 - 13:00	8	28	0.098	8	28	0.102	8	28	0.200
13:00 - 14:00	8	28	0.098	8	28	0.093	8	28	0.191
14:00 - 15:00	8	28	0.080	8	28	0.116	8	28	0.196
15:00 - 16:00	8	28	0.111	8	28	0.098	8	28	0.209
16:00 - 17:00	8	28	0.151	8	28	0.089	8	28	0.240
17:00 - 18:00	8	28	0.187	8	28	0.058	8	28	0.245
18:00 - 19:00	8	28	0.116	8	28	0.084	8	28	0.200
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.151			1.227			2.378

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 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	8	28	0.000	8	28	0.138	8	28	0.138
08:00 - 09:00	8	28	0.004	8	28	0.271	8	28	0.275
09:00 - 10:00	8	28	0.022	8	28	0.120	8	28	0.142
10:00 - 11:00	8	28	0.044	8	28	0.058	8	28	0.102
11:00 - 12:00	8	28	0.044	8	28	0.058	8	28	0.102
12:00 - 13:00	8	28	0.076	8	28	0.058	8	28	0.134
13:00 - 14:00	8	28	0.027	8	28	0.058	8	28	0.085
14:00 - 15:00	8	28	0.067	8	28	0.044	8	28	0.111
15:00 - 16:00	8	28	0.098	8	28	0.049	8	28	0.147
16:00 - 17:00	8	28	0.156	8	28	0.027	8	28	0.183
17:00 - 18:00	8	28	0.227	8	28	0.022	8	28	0.249
18:00 - 19:00	8	28	0.124	8	28	0.018	8	28	0.142
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.889			0.921			1.810

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 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL TOTAL PEOPLE
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period
 Total People to Total Vehicles ratio (all time periods and directions): 2.80

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	8	28	0.071	8	28	0.511	8	28	0.582
08:00 - 09:00	8	28	0.156	8	28	0.880	8	28	1.036
09:00 - 10:00	8	28	0.298	8	28	0.409	8	28	0.707
10:00 - 11:00	8	28	0.267	8	28	0.351	8	28	0.618
11:00 - 12:00	8	28	0.284	8	28	0.311	8	28	0.595
12:00 - 13:00	8	28	0.307	8	28	0.284	8	28	0.591
13:00 - 14:00	8	28	0.271	8	28	0.302	8	28	0.573
14:00 - 15:00	8	28	0.244	8	28	0.293	8	28	0.537
15:00 - 16:00	8	28	0.436	8	28	0.271	8	28	0.707
16:00 - 17:00	8	28	0.653	8	28	0.253	8	28	0.906
17:00 - 18:00	8	28	0.644	8	28	0.244	8	28	0.888
18:00 - 19:00	8	28	0.440	8	28	0.267	8	28	0.707
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.071			4.376			8.447

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.*



FAIRHURST



Sanderson House, Jubilee Way, Grange Moor,
Huddersfield, WF4 4TD



01924 844080



mail@sandersonassociates.co.uk



www.sandersonassociates.co.uk

CIVIL ENGINEERING • STRUCTURAL ENGINEERING • TRANSPORTATION • ROADS & BRIDGES
PORTS & HARBOURS • GEOTECHNICAL & ENVIRONMENTAL ENGINEERING • PLANNING &
DEVELOPMENT • WATER SERVICES • HEALTH & SAFETY / CDM SERVICES

