



Toby Whittaker

Genesis Business Park, Rochdale

Transport Statement

November 2023



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Genesis Business Park, Rochdale

Transport Statement

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1. Introduction

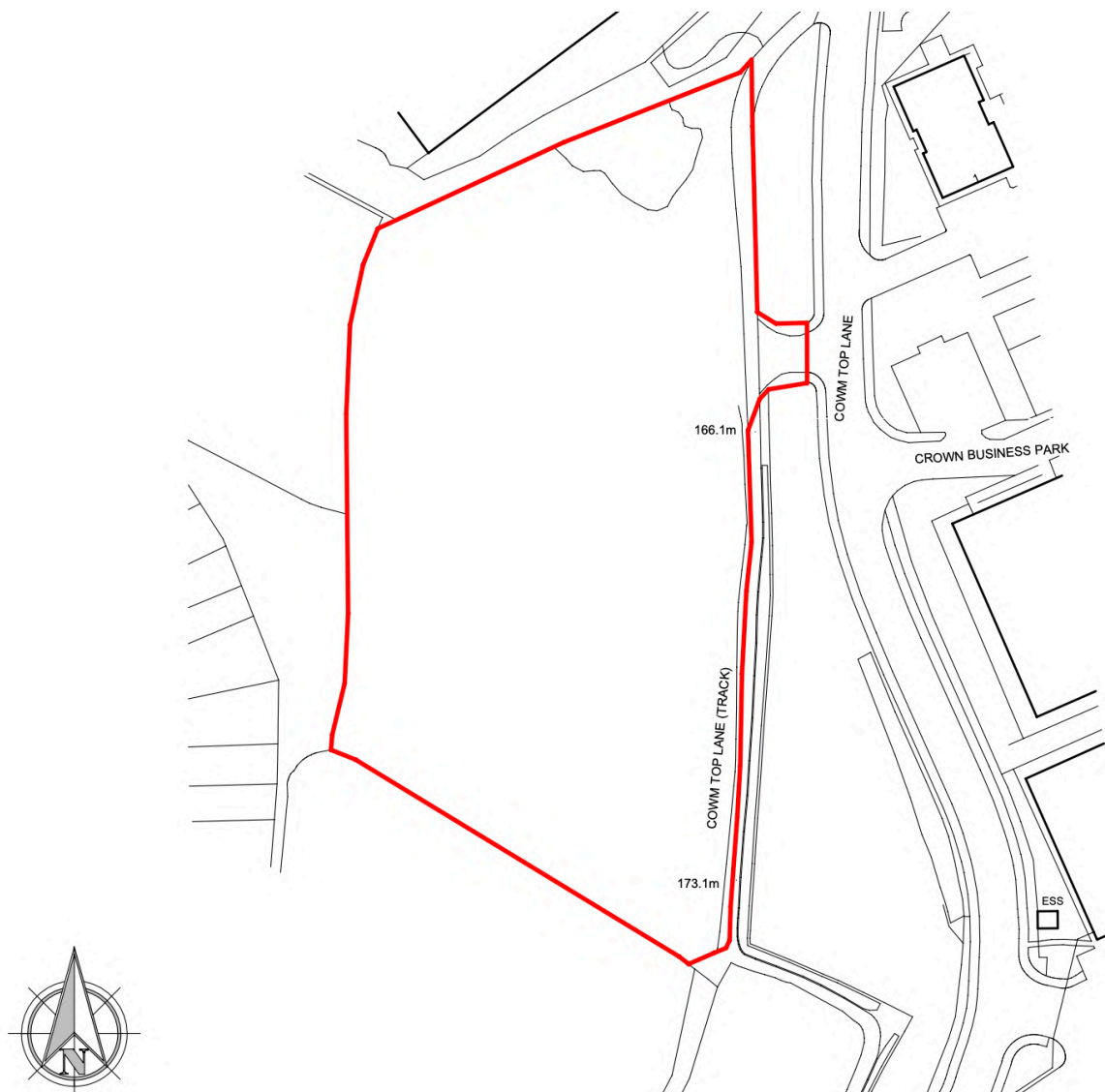
1.1 Preamble

1.1.1 Mode Transport Planning ('Mode') has been appointed by Toby Whittaker (the 'Applicant') to provide transport planning and highways advice in relation to an industrial development at the Genesis Business Park on land off Cowm Top Lane in Rochdale.

1.1.2 From the information provided it is understood that the proposed scheme will comprise 3no. industrial units (Use Class E(g)(iii) / B2 / B8), with a Gross Floor Area (GFA) of 1,192sqm (12,480sqft). The site, which is currently vacant, will be accessed via an existing priority access on the western side of Cowm Top Lane.

1.1.3 The indicative site boundary is shown in [Figure 1.1](#).

Figure 1.1 : Indicative Site Boundary



1.1.4 This Transport Statement (TS) has been prepared to assess the development proposals, with consideration to expected trip generation, accessibility by sustainable modes of travel, accessibility for refuse vehicles and car parking provision.

1.2 Planning History

1.2.1 Rochdale Metropolitan Borough Council (RMBC) is currently considering an outline planning application for c.550 residential dwellings to the south of the site on the eastern side of Cowm Top Lane (21/01349/OUT). It will use Cowm Top Lane and its junction with the A664 (Queensway) as its primary access. It was requested by RMBC during scoping that the cumulative impact of the proposed development and the residential scheme on the above junction was considered.

1.3 Methodology

1.3.1 The methodology for the TS adopts the guidance set out within the Ministry of Housing, Communities & Local Government document, *'Transport Evidence Bases in Plan Making and Decision Taking'* (2014), which supersedes the Department for Transport's (DfT) *'Guidance on Transport Assessment'* (2007). However, although the 2007 guidance has been superseded, it nonetheless remains instructive and has been used to inform the overall structure of the TS.

1.3.2 The scope of the TS of was agreed with RMBC Highways via email on Tuesday 18th October 2022.

1.4 Report Structure

1.4.1 Following this introductory chapter, the TS has been structured as follows:

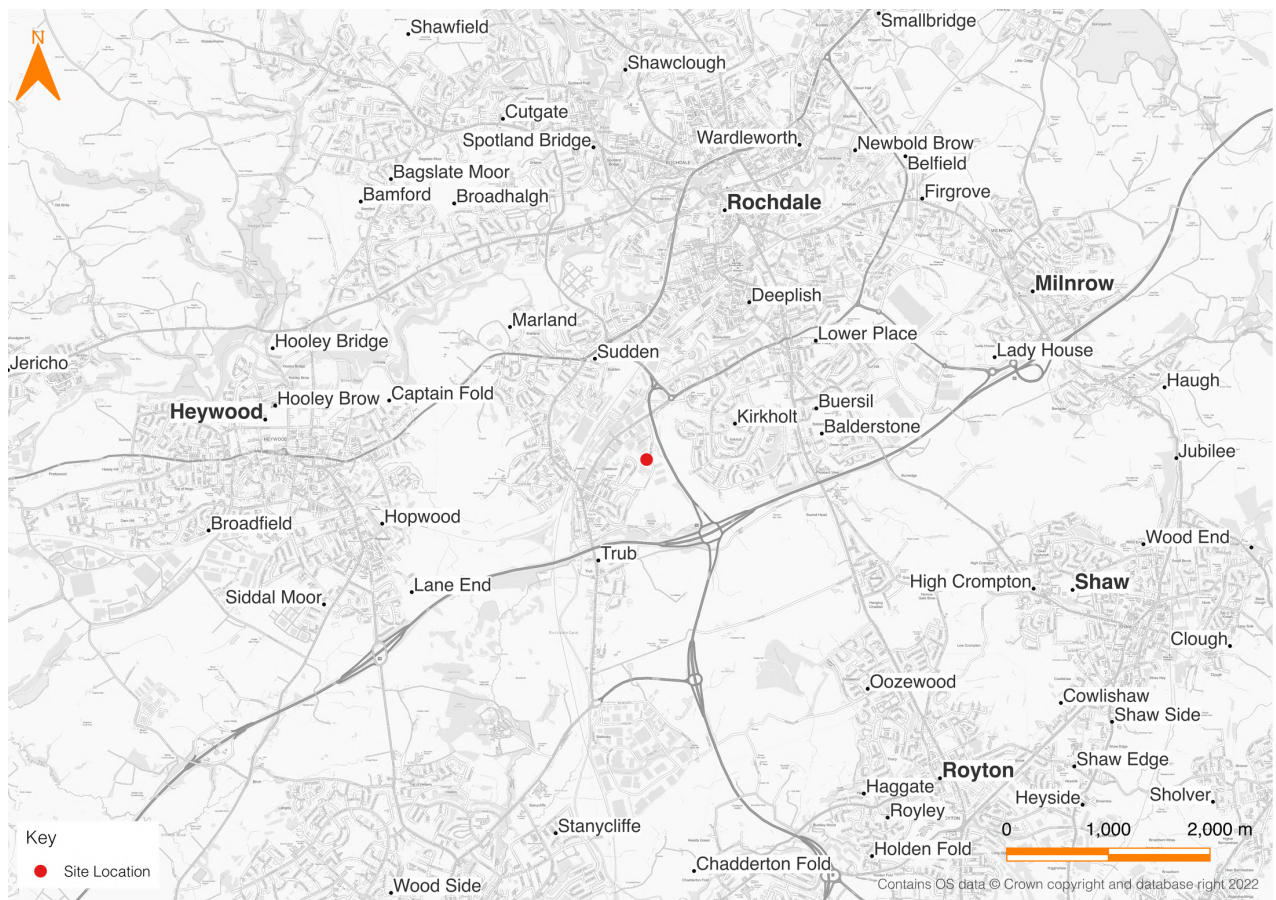
- Chapter 2 describes the site location and local highway network;
- Chapter 3 outlines the development proposals, vehicular access, servicing and parking;
- Chapter 4 details accessibility by non-car modes, including public transport, cycle and on foot;
- Chapter 5 details the expected trip generation;
- Chapter 6 summarises the off-site traffic impact assessment and
- Chapter 7 summarises and concludes the findings of the report.

2. Existing Conditions

2.1 Site Location

2.1.1 The site is located on land west of Cowm Top Lane in Castleton, c.2km south of Rochdale Town Centre, c.3.8km east of Heywood and c.4.1km northwest of Royton. The strategic site location is shown in Figure 2.1.

Figure 2.1 : Strategic Site Location

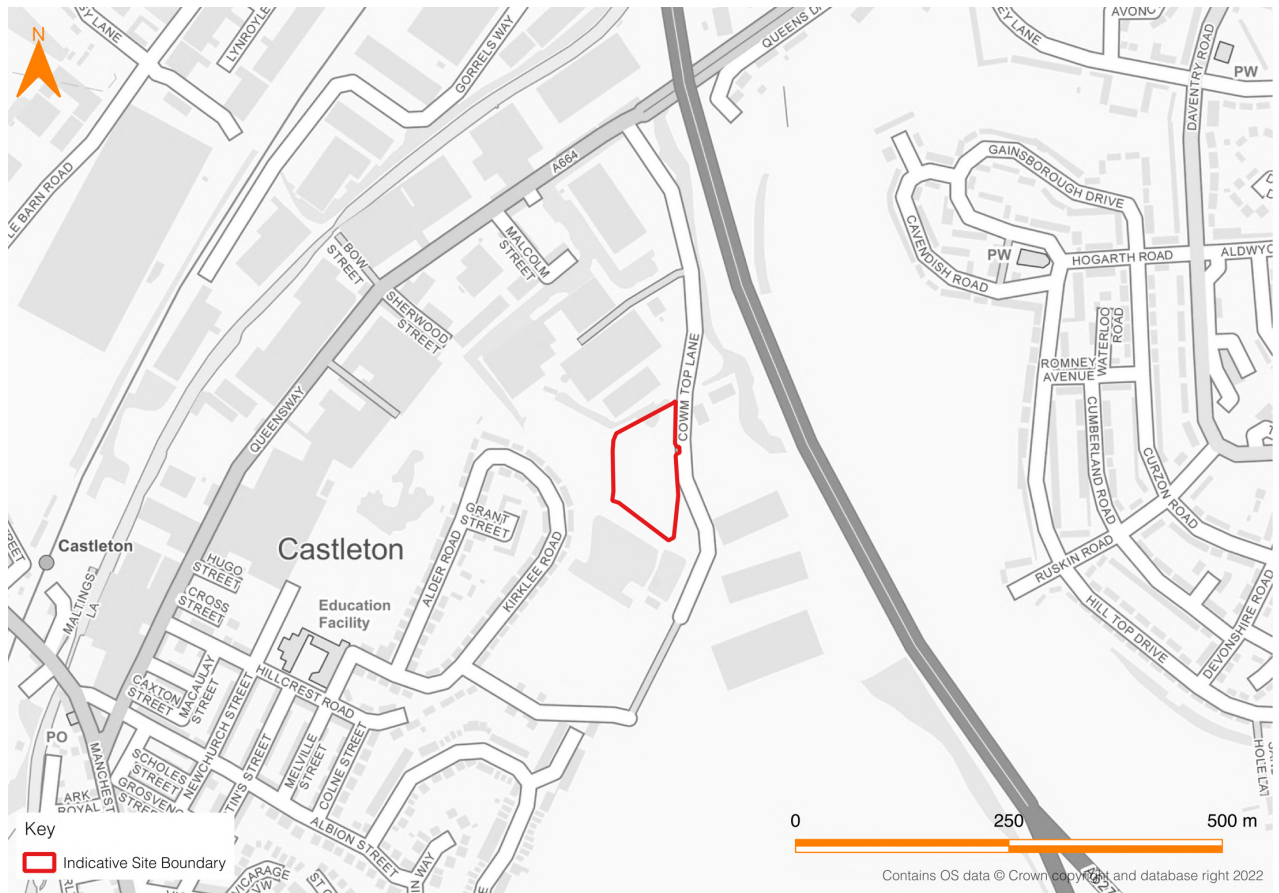


2.2 Local Highway Network

2.2.1 The site is located to the west of the A627 Motorway in a predominantly industrial area. The site is bound to the north by industrial land use and to the south by vacant land. To the west, the site abuts a residential area, with the eastern boundary adjacent to Cowm Top Lane.

2.2.2 Figure 2.2 shows the location of the site in the context of the local highway network.

Figure 2.2 : Local Highway Network



Cowm Top Lane

- 2.2.3 Cowm Top Lane runs in a broadly north-to-south alignment along the eastern boundary of the site serving the existing industrial area. It is a two-lane single carriageway providing access in both directions.
- 2.2.4 Cowm Top Lane provides c.7m carriageway width with c.2m wide good quality footways on both sides ([Photograph 2.1](#)). Cowm Top Lane benefits from a network of street lighting as well as on-street parking bays along its eastern side.
- 2.2.5 Cowm Top Lane connects with the Queensway (A664) via a priority junction with a right turn ghost island c.400m north of the site access. From the site access, Cowm Top Lane extends south for c.220m before becoming a single-lane c.3m wide track and extending for a further c.120m.

Photograph 2.1 : Cowm Top Lane

Queensway (A664)

- 2.2.6 Queensway (A664) follows a northeast-to-southwest alignment to the north and west of the site and is subject to 30mph speed limit. In the vicinity of the site Queensway varies in width between c.7m to the west of the Cowm Top Lane junction and a c.13m wide dual carriageway to the east connecting with the A627(M).
- 2.2.7 Queensway benefits from a network of streetlighting columns and flag and pole bus stops. This can be seen in [Photograph 2.2](#). It also features double yellow lines down the majority of the carriageway preventing on-street parking.
- 2.2.8 To the east, Queensway joins the A627 at a three-arm roundabout junction and continues as the Rochdale Bypass.
- 2.2.9 To the west, Queensway joins Manchester Road at a signal-controlled junction. Signalised pedestrian crossings are available to aid safe pedestrian movement across the junction.

Photograph 2.2 : A664 (Queensway) - Bus Stop



Wider Highway Network

2.2.10 The A627 motorway is accessible from the site via Cowm Top Lane and Queensway. It runs between Chadderton and Rochdale, providing both towns with access to the M62.

2.3 Public Rights of Way

2.3.1 A Public Right of Way (PRoW) runs through the site boundary. This can be seen in [Figure 2.3](#).

Figure 2.3 : Public Rights of Way Map (source: FootPathMap)



2.3.2 As seen in Figure 2.3, RocFFp23 runs from Queensway to the north of the site, along / across Cowm Top Lane and into an existing residential area to the south. This can be seen on Photograph 3. The PRoW will not be developed upon and access to the PRoW will be maintained.

Photograph 3 : Public Right of Way - RocFFp23



2.3.3 RocFRupp24 (green) runs in an east-to-west alignment along Hillcrest Road / Cripple Gate Lane to the south of the site and will not be impacted by the development proposals.

2.4 Air Quality

2.4.1 According to the Department for Environment, Food and Rural Affairs (DEFRA), the site is not located within an Air Quality Management Area (AQMA).

3. Development Proposals

3.1 Proposed Use

3.1.1 The development will include a new industrial development on Cowm Top Lane in Rochdale. The development proposals comprise 3no. industrial units (Use Class E(g)(iii) / B2 / B8) with a GFA of 1,192sqm (12,480sqft). The development will include servicing yards, on-site car parking provision, cycle parking and associated landscaping.

3.1.2 The proposed development site layout is shown in [Figure 3.1](#), with full layout plan attached in [Appendix A](#).

Figure 3.1 : Proposed Site Plan (source: Campbell Driver Architects)



3.2 Site Access Arrangement

3.2.1 The site will be accessed via an existing priority access on the western side of Cowm Top Lane.

3.3 Servicing Arrangements

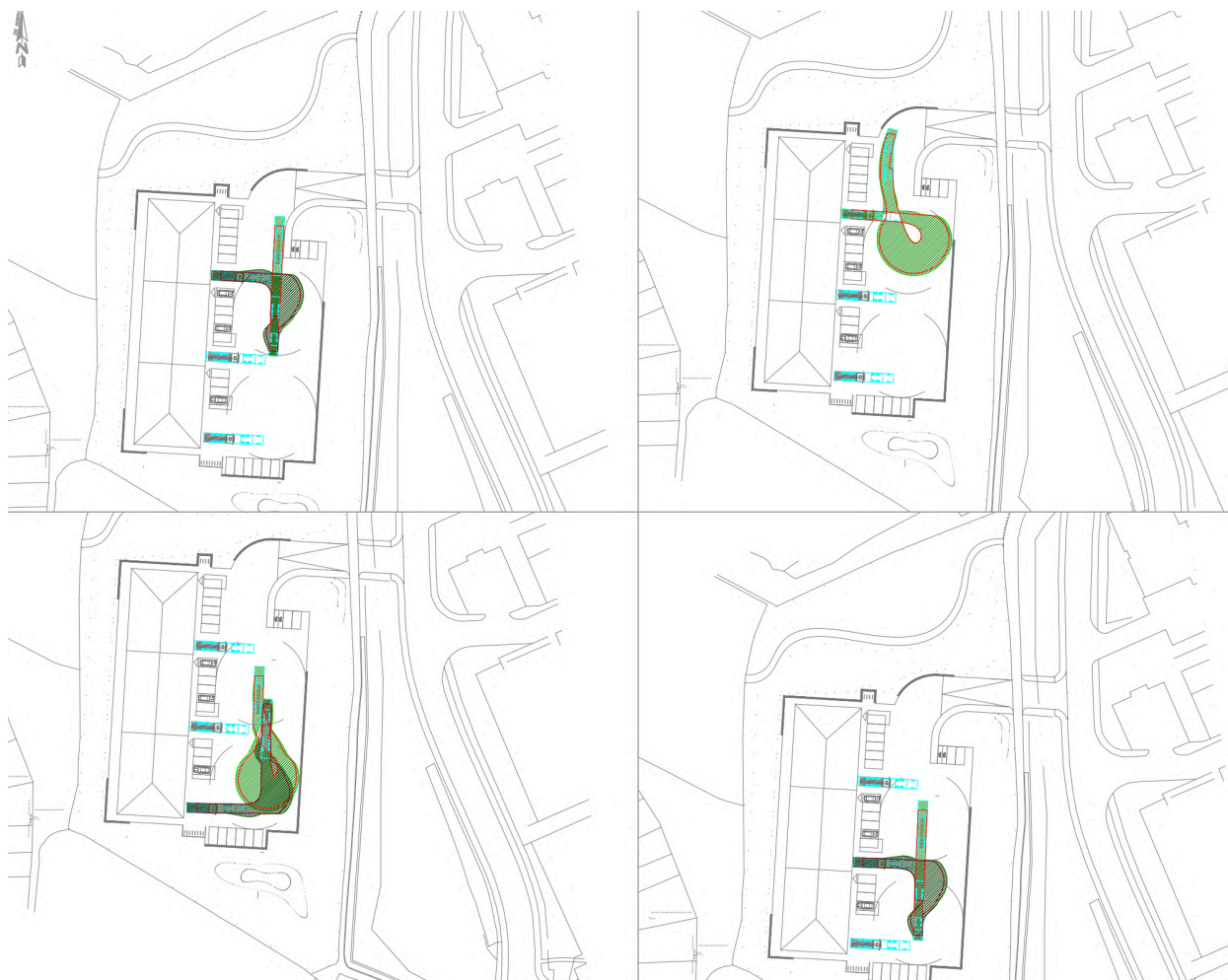
3.3.1 The largest delivery vehicle to regularly frequent the proposed units will be a 10m rigid HGV. The analysis shows that a 10m rigid HGV can enter and exit via the site access in a forward gear and manoeuvre within the proposed service yards.

- 3.3.2 In addition, swept path analysis for an 11.2m refuse vehicle and a 16.5m articulated HGV has been undertaken. The analysis shows that both vehicles can enter and exit via the site access in a forward gear and manoeuvre within the site. The analysis also shows that each unit can be independently serviced by a 16.5m HGV.
- 3.3.3 Swept path analysis for a 10m rigid HGV and an 11.2m refuse collection vehicle is shown in [Figure 3.2](#) and [Figure 3.3](#) respectively, with the full drawings (J32-7089-PS-001/002) attached in [Appendix B](#).

Figure 3.2 : Swept Path Analysis – 10m Rigid, 11.2m Refuse Vehicle and 16.5m HGV



Figure 3.3 : Swept Path Analysis – 16.5m HGV



3.4 Parking Provision

3.4.1 RMBC's parking standards for the relevant land uses are summarised in [Table 3.1](#).

Table 3.1 : RMBC Parking Standards

Land Use	Maximum Car Parking	Minimum Disabled Parking Standard	Minimum Cycle Parking	Minimum Motorcycle Parking
B2	1 space / 60sqm	3 spaces or 6% of total capacity (whichever is the greater)	1 space / 700sqm Minimum of 2 spaces	1 space / 2,800sqm Minimum of 2 spaces
B8	1 space / 100sqm	3 spaces or 6% of total capacity (whichever is the greater)	1 space / 850sqm Minimum of 2 spaces	1 space / 4,000sqm Minimum of 2 spaces

3.4.2 The proposed development will provide 24no. car parking spaces, of which 3no. will be accessible disabled spaces.

3.4.3 The development proposals also include 2no. motorcycle parking bays and 12no. Sheffield Stands, providing parking for 24no. cycles. The proposed level of cycle and motorcycle parking complies with minimum B2 and B8 standards.

4. Sustainable Accessibility

4.1 Introduction

- 4.1.1 Current Government policy and guidance places significant emphasis on the promotion of sustainable transport modes for all new developments. This forms part of a long-term strategy to reduce the reliance on private car trips.
- 4.1.2 The National Planning Policy Framework (NPPF), published in July 2021, sets out the Government's planning policies for England and how these are expected to be applied. Chapter 9 of the NPPF, '*Promoting Sustainable Transport*', sets out the important role that transport issues and policies have in facilitating sustainable development.
- 4.1.3 Paragraph 105 states that: "*Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be considered in both plan-making and decision-making.*"
- 4.1.4 This chapter considers accessibility via sustainable modes of transport to the proposed development site, including access by public transport, cycle and on foot.

4.2 Pedestrian Accessibility

- 4.2.1 Guideline walking distances provided in the Chartered Institution of Highways and Transportation (CIHT) document 'Guidelines for Providing for Journeys on Foot (2000)', are shown in [Table 4.1](#).

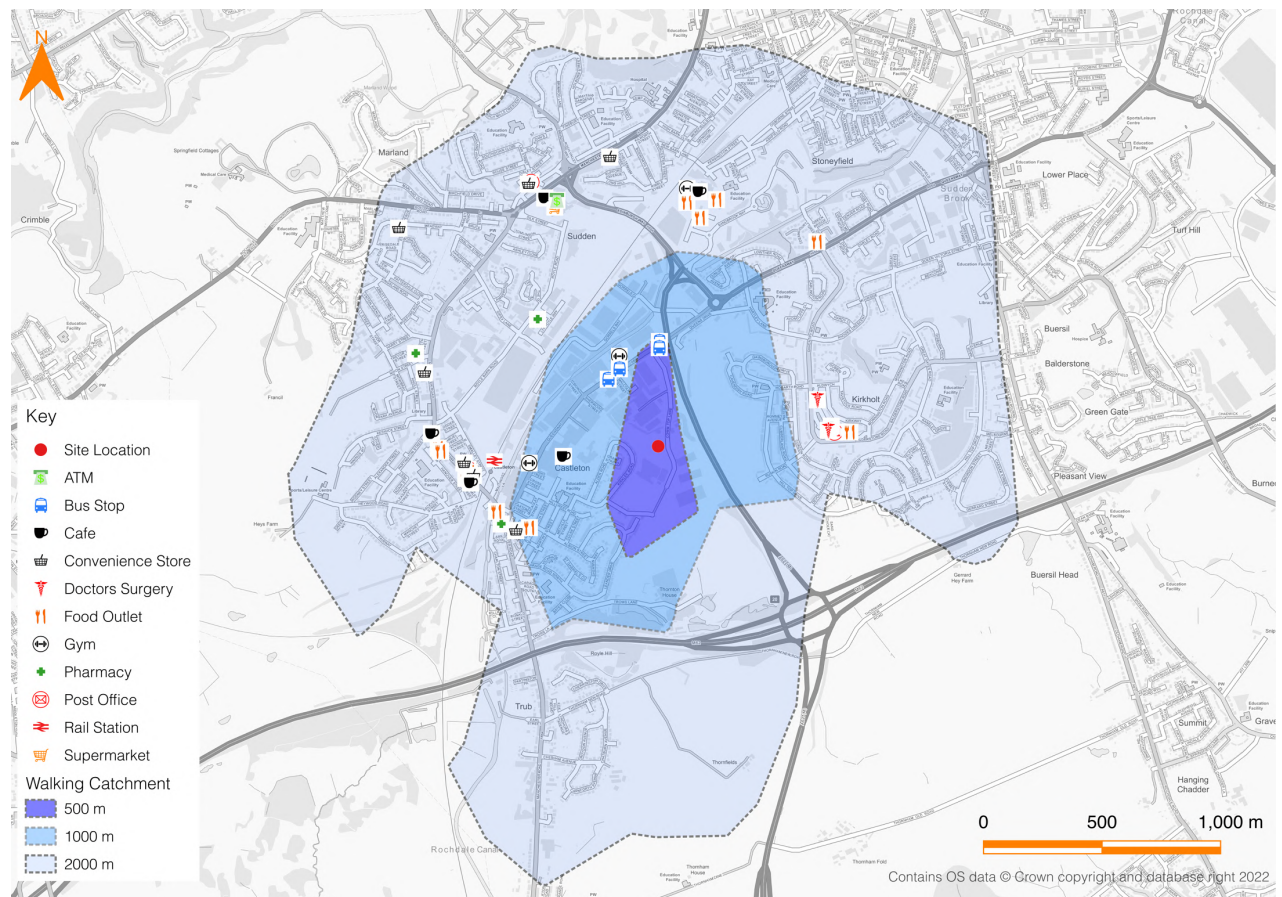
Table 4.1 : CIHT Acceptable Walking Distances

Criteria	Town Centre	Commuting	Elsewhere
Desirable	200m	500m	400m
Acceptable	400m	1,000m	800m
Preferred Maximum	800m	2,000m	1,200m

- 4.2.2 The CIHT guidelines shown in [Table 4.1](#) suggest that for commuting purposes up to 500m is a desirable walking distance, up to 1,000m is considered an acceptable walking distance and 2,000m is the preferred maximum walking distance.

- 4.2.3 Appropriate walking distances are dependent upon the location of the specific development; more remote locations will see people being prepared to walk further to their end destination. Similarly, appropriate walking distances are also dependent upon the standard of existing pedestrian infrastructure provision, with further walking distances achievable in locations with extensive and high-quality pedestrian footways, crossings and pedestrianised areas.
- 4.2.4 As described previously, a network of existing footways is provided on the local highway network providing dedicated pedestrian access to nearby amenities and facilities.
- 4.2.5 Figure 4.1 presents the local amenities and 500m, 1,000m and 2,000m walking catchments from the site, as specified in CIHT guidance for commuting purposes.

Figure 4.1 : Walking Catchment Area with Local Amenities



- 4.2.6 As shown in Figure 4.1, the development site is located within a 500m walking catchment of bus stops on the A664 (Queensway) and within a 1000m walking catchment of further bus stops, gyms and food outlets.
- 4.2.7 Further amenities are accessible within a 2000m walking catchment includes doctors' surgeries, a convenience store, an ATM and a supermarket.

4.2.8 Table 4.2 provides an indication of the distances and approximate walking times to local bus stops and local amenities. The distances have been measured from the centre of the site and the times are based on an average walking speed of 1.4 metres per second and do not allow for waiting time to cross junctions.

Table 4.2 : Local Amenities – Distances and Walking Times

Amenity	Distance	Average Walking Time
The Drop in Diner Café	345m	4 minutes
Bus Stop on Queensway n/b	435m	5 minutes
Bus Stop on Queensway s/b	490m	6 minutes
Full Contact Performance Centre (Gym)	560m	7 minutes
Co-op Convenience Store	695m	8 minutes
Castleton Railway Station	700m	8 minutes
The Strand Medical Centre	700m	8 minutes
Tesco Superstore with Café, ATM, Petrol Station	1.1km	13 minutes

4.2.9 Table 4.2 shows that there are a range of amenities accessible within a 1000m walking catchment. Bus stops on Queensway providing services in both directions are available within 490m (6-minute walk) of the site.

4.2.10 Additional amenities available within the 1000m walking catchment include the Drop in Diner café within 345m (4-minute walk), a Co-op convenience store within 695m (8-minute walk) and The Strand Medical Centre within 700m (8-minute walk) of the site. Castleton Railway Station is also located within a 700m (8-minute walk) catchment to the west of the site

4.2.11 A Tesco superstore which includes a café, ATM point and a petrol station is also accessible within 1.1km (13-minute walk) of the site.

4.2.12 As described previously, the local highway network benefits from an extensive network of footways and the site is well situated in terms of accessibility to local bus services and local amenities within the local area. It has therefore been demonstrated that the site is well-placed in terms of pedestrian connectivity, with walking representing a realistic alternative to car trips.

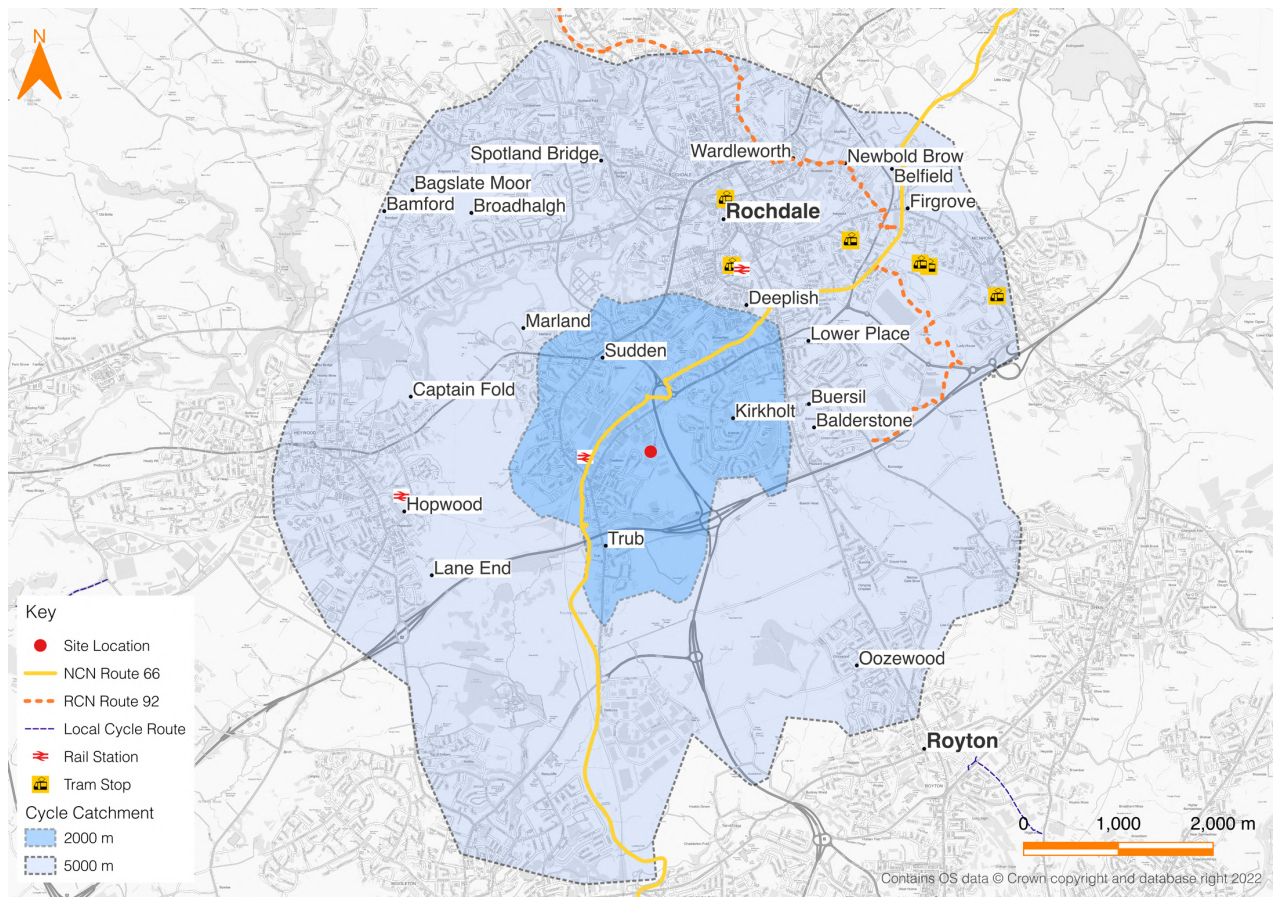
4.3 Cycle Accessibility

4.3.1 As with pedestrian accessibility, the level of a site's cycle accessibility depends upon a combination of the distance from local amenities and the standard of existing cycle infrastructure. It should, however, be noted that that cycle infrastructure can include facilities shared with vehicles and pedestrians as well as dedicated cycle infrastructure.

4.3.2 In respect of acceptable cycle distances, 'Local Transport Note 1/20: Cycle Infrastructure Design', published by the Department for Transport (DfT), states that *'two out of every three personal trips are less than five miles in length - which is an achievable distance to cycle for most people'*.

4.3.3 Figure 4.2 indicates the cycling catchment area around the proposed development site for 2km and 5km.

Figure 4.2 : Cycle Catchment Plan



4.3.4 As shown in Figure 4.2, the suburbs of Trub and Sudden are located within the 2km cycle catchment, as well as Castleton Rail Station.

4.3.5 Rochdale Town Centre, Hopwood and Oozewood all located within the 5km cycle catchment, as well as multiple tram stops including the Rochdale Railway Station stop c.2.1km north of the site.

4.3.6 The site also benefits from accessibility to national and regional cycling routes, including NCN Route 66 which runs in the 2km cycle catchment, and RCN Route 92 which joins NCN Route 66 in the 5km cycle catchment.

4.3.7 As shown in Figure 4.3, a network of local cycle routes are also available in close proximity to the site.

Figure 4.3 : Local Cycle Routes (source: TfGM)



4.3.8 As shown in Figure 4.3, a traffic free route with a good surface is available through Castleton to the east of the site (NCN Route 66). Further traffic free routes are available to the west and east of the site, providing cycle access to residential areas in Heywood and Balderstone respectively.

4.3.9 The 'Castleton-Rochdale Walking and Cycling Corridor' scheme is currently being constructed and will be completed by February 2023. Once completed, this route will provide safe and convenient access between Rochdale and Castleton. Phase 1 is shown in Figure 4.4 and Phase 2 is shown in Figure 4.5.

Figure 4.4 : Castleton-Rochdale Walking and Cycling Corridor Improvements – Phase 1

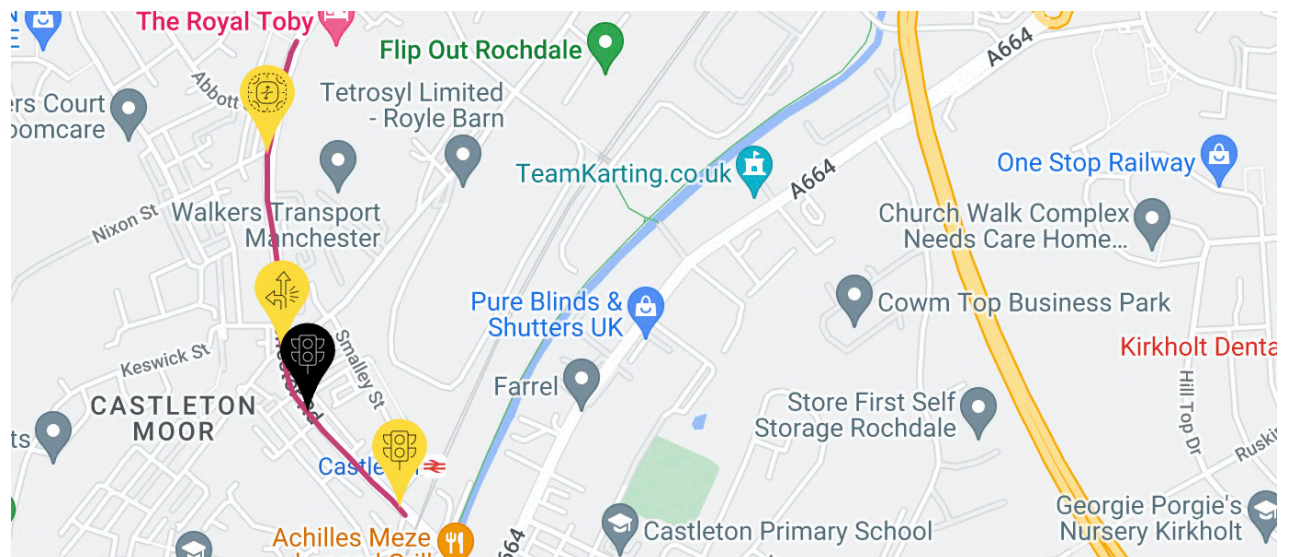
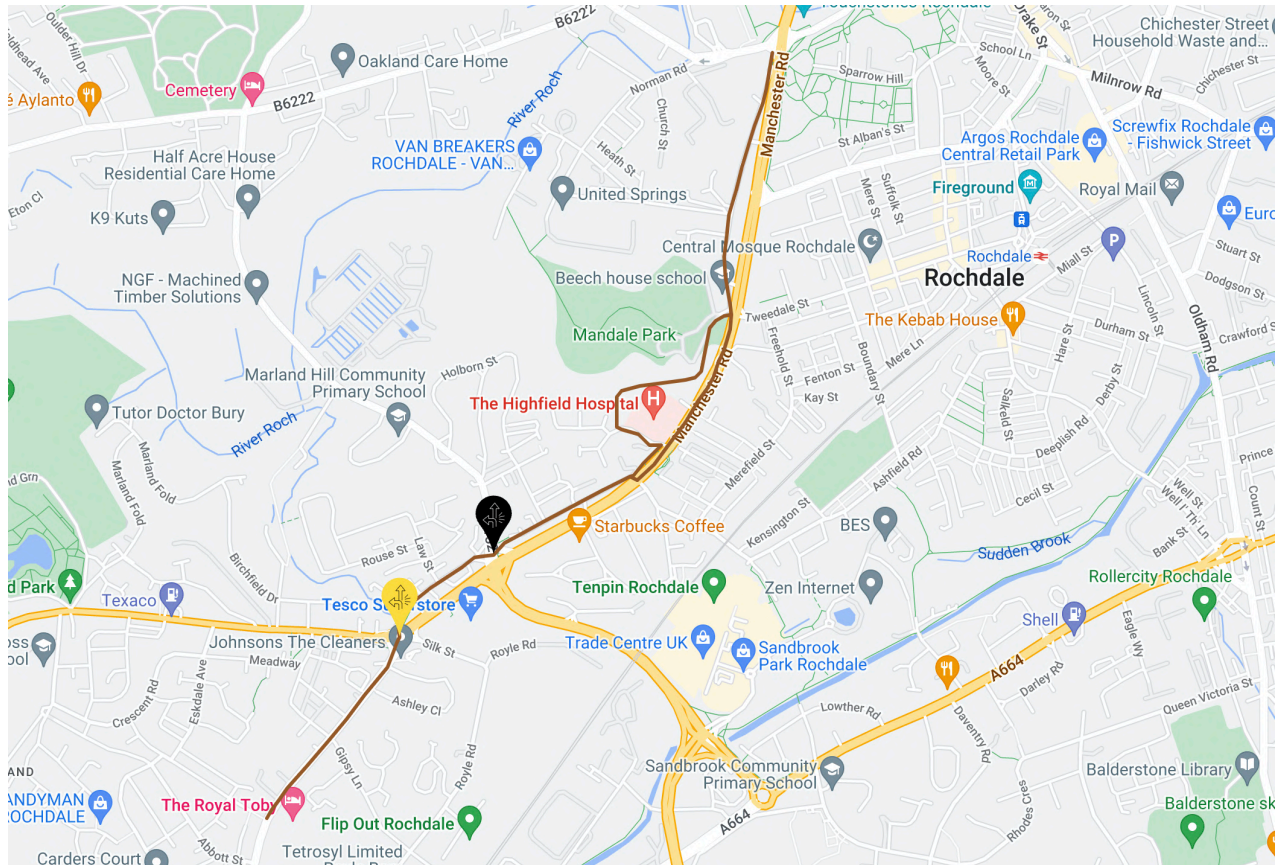


Figure 4.5 : Castleton-Rochdale Walking and Cycling Corridor Improvements – Phase 2



4.3.10 Considering the close proximity of local cycle routes and accessibility to local areas, as well as the planned improvements, cycling could be a realistic method of travel for residents, particularly as an alternative to private car trips.

4.4 Public Transport Services

Local Bus Services

4.4.1 Bus stops providing both north and south-bound services are available from Queensway c.490m north of the site (6-minute walk). Bus stops on Manchester Road, directly south of Castleton Station and c.700m (8-minute walk) west of the site, provide additional services. All bus stops are accessible via good quality footways from the development site.

4.4.2 Table 4.3 provides a summary of routes and frequencies of local bus services accessible from these bus stops. Full timetables are attached in Appendix C.

Table 4.3 : Local Bus Services – Queensway and Manchester Road

Service No.	Route	Approx. Two-Way Frequency (buses / hour)				
		AM	Off-Peak	PM	Sat	Sun
Rochdale Runners R7	Rochdale - Middleton	1	1	1	1	1
17 / 17A	Rochdale – Manchester City Centre	6	6	6	4	2
880*	Norden – Rochdale - Buersil	<1	No service	<1	No service	No service
881*	Trub – Rochdale - Greave	<1	No service	<1	No service	No service
*School service						

4.4.3 As shown in Table 4.3, regular bus services are available from Queensway and Manchester Road to Manchester City Centre, Rochdale and Middleton. Additional school bus routes are also available in the AM and PM.

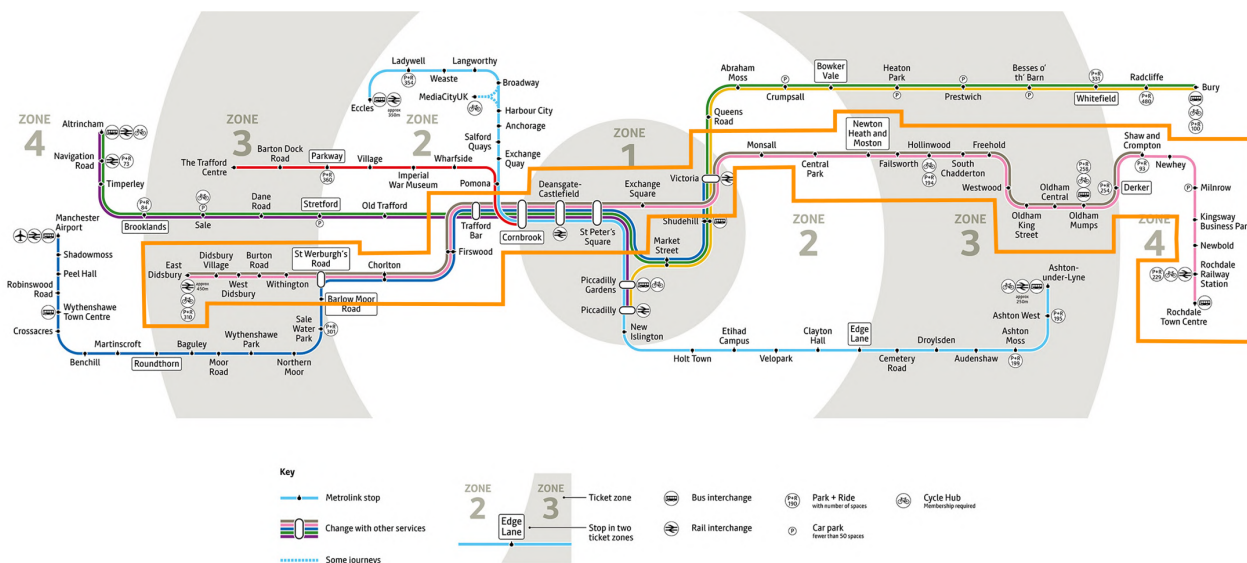
4.4.4 Regular bus services operate throughout the week and weekend and are therefore a viable option for accessing local amenities for future residents of the site.

Tram Services

4.4.5 The closest tram stop is at Rochdale Metrolink Station c.2.1km north of the development site.

4.4.6 Figure 4.6 shows the TfGM Metrolink map, with the East Didsbury – Rochdale (pink) line, accessible from Rochdale Railway Station stop, highlighted.

Figure 4.6 : Metrolink Map (source: TfGM)



4.4.7 As shown in Figure 4.6, Oldham, Manchester Victoria Station, St. Peter's Square and East Didsbury are all directly accessible via the East Didsbury – Rochdale (pink) line. Services are frequent, with a tram departing every 4 to 12 minutes.

4.4.8 There is also the opportunity for users to change lines at Victoria or Cornbrook to access services to Bury, Manchester Piccadilly Station or Manchester Airport.

4.4.9 The frequency and range of services demonstrates that the Metrolink is a realistic and convenient alternative to private car trips for commuting or as part of a multi-modal journey.

Rail Services

4.4.10 The closest rail station to the development site is Castleton Railway Station c.700m north of the site. A summary of the direct rail services available from the station are highlighted below in Table 4.4.

Table 4.4 : Direct Rail Services – Castleton Railway Station

Destination	Approx. Frequency	Approx. Journey Time
Clitheroe via Manchester Victoria	1 service / hour	1 hour 35 minutes
Rochdale	1 service / hour	3 minutes

**Infrequent services are also available to Leeds, Blackburn and Wigan Wallgate*

4.4.11 As shown in Table 4.4, hourly rail services are available from Castleton Railway Station to Clitheroe, Rochdale and Manchester Victoria.

4.4.12 This demonstrates the site's accessibility by rail, particularly as an alternative to private car trips for commuting or as part of a multi-modal journey.

4.5 Summary

4.5.1 In summary, it has been shown that the site can be accessed sustainable modes of travel, including walking, cycling and public transport - thereby offering an alternative to single occupancy car trips. This includes the following:

- Existing footways are available on the local highway network providing safe walking routes to local amenities and public transport provision;
- Bus stops are located within a short walking distance from the site and are accessible via dedicated pedestrian routes;
- Access to a network of cycle routes within the local area including national and regional routes;
- Ongoing improvements to cycle and pedestrian routes through Castleton will see safer routes accessible by February 2023;
- Regular bus services provide access to Manchester City Centre, Rochdale and Middleton;
- Frequent tram services on the Metrolink network provide access to Manchester City Centre and East Didsbury, with further services allowing access to Manchester Airport and Bury; and
- Castleton Railway Station provides direct train services to Manchester Victoria, Clitheroe and Rochdale Town Centre.

4.5.2 Overall, alternatives to single-occupancy car trips are available within the local area of the site, including walking routes, cycling routes and public transport services.

4.5.3 The site is therefore compliant with the (NPPF) which states in paragraph 110 that: *'in assessing sites that may be allocated for development in plans, or specific application 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'.*

4.5.4 Furthermore, the proposals accord with paragraph 112 of the NPPF which states that: *'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'.*

5. Trip Generation

5.1 TRICS Trip Rates

- 5.1.1 To quantify the traffic impact of the development on the local highway network, a trip generation exercise has been undertaken for the proposed residential development. Vehicle trip rates have been derived from the TRICS database (v7.9.3) using the '*Employment – Industrial Unit*' land use category.
- 5.1.2 TRICS surveys during the COVID-19 lockdowns were removed as it is likely that travel behaviours were affected during this time.
- 5.1.3 In line with the '*TRICS Good Practice Guide 2021*', no surveys were excluded on the basis of geographical region. The study undertaken by TRICS revealed that there is a significantly higher correlation between location type and resulting trip rates than there is between region and resulting trip rates.
- 5.1.4 The guidance recommends that regional selection should not be a major consideration when applying trip rate calculation filtering criteria. The guidance also indicates that location type is one of the most influential factors in terms of trip generation, and therefore should be one of the main filtering considerations.

5.2 Trip Generation

- 5.2.1 The vehicle TRICS trip rates during the AM and PM peaks are summarised in [Table 5.1](#). Full TRICS outputs are attached in [Appendix D](#).

Table 5.1 : Trip Generation – TRICS All Vehicle Trip Rates per 100sqm

TRICS Land Use Category	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)		
	Arrive	Depart	Total	Arrive	Depart	Total
Trip Rate <i>Employment – Industrial Unit</i>	0.464	0.133	0.597	0.111	0.391	0.502
Proposed Development (1,192 sqm)	5	2	7	1	5	6

- 5.2.2 As shown in [Table 5.1](#), the proposed development is expected to generate **7** two-way trips during the AM peak hour and **6** two-way trips during the peak hour.

5.2.3 Given the proposed development comprises B2 / B8 land uses, it is expected to generate Heavy Goods Vehicle (HGV) movements. The HGV TRICS trip rates and resulting trips during the AM and PM peak are summarised in [Table 5.2](#). Full TRICS outputs are attached in [Appendix D](#).

Table 5.2 : Trip Generation – TRICS HGV Trip Rates per 100sqm

TRICS Land Use Category	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)		
	Arrive	Depart	Total	Arrive	Depart	Total
Trip Rate						
<i>Employment – Industrial Unit</i>	0.055	0.036	0.091	0.012	0.009	0.021
Proposed Development (1,192 sqm)	1	0	1	0	0	0

5.2.4 To estimate the number of trips undertaken by cars / LGVs, the HGV trips shown in [Table 5.2](#) were subtracted from the all-vehicle trips shown in [Table 5.1](#). The AM and PM peak hour trips for cars/LGVs and HGVs are shown below in [Table 5.3](#).

Table 5.3 : Trip Generation – Car / LGV and HGV Trips

TRICS Land Use Category	AM Peak Hour (08:00-09:00)			PM Peak Hour (16:00 -17:00)		
	Arrive	Depart	Total	Arrive	Depart	Total
Employment – Industrial Estate – Car / Van Trips	4	2	6	1	5	6
Employment – Industrial Estate – HGV Trips	1	0	1	0	0	0
Total	5	2	7	1	5	6

5.2.5 The trips presented in [Table 5.3](#) have been converted into Passenger Car Units (PCUs) using an HGV conversion factor of 2.3 PCUs.

5.2.6 The resulting trips in PCUs for the AM and PM peaks that will be carried forward for the purposes of the traffic impact assessment are shown in [Table 5.4](#).

Table 5.4 : Trip Generation – Proposed Development Trips in PCUs

Time	Arrivals	Departures	Total
AM Peak	7	2	9
PM Peak	1	5	6

5.2.7 The proposed development is expected to generate **9** two-way PCU trips during the AM peak period and **6** two-way PCU trips during the PM peak period.

5.3 Summary

5.3.1 The proposed development is expected to generate **9** two-way PCU trips during the AM peak period and **6** two-way PCU trips during the PM peak period. In terms of traffic impact on the local highway network, the proposed development is expected to generate approximately 1 PCU trip every 8 minutes when averaged over the AM and PM peak periods.

5.3.2 Overall, it can be concluded that the proposed development will not have a severe impact on the local highway network, which is the threshold stated by NPPF (Paragraph 111) under which development should not be refused on highways grounds.

6. Traffic Impact Assessment

6.1 Introduction

6.1.1 RMBC are currently considering an outline planning application for a 550no. unit residential development to the east of Cowm Top Lane (21/01349/OUT). The committed residential development will be accessed via an extension of Cowm Top Lane and localised improvements to the road have been proposed to the south of the development site. The Queensway (A644) / Cowm Top Lane will be the primary access connecting the residential scheme to the local highway network. As such, during scoping discussions with RMBC highways, it was requested that the cumulative impact of the proposed development at the Queensway / Cowm Top Lane was considered.

6.1.2 On the basis that the proposed development will generate well below 30 two-way vehicle movements during the AM or PM peak period, a capacity assessment has not been undertaken. Instead, a percentage impact assessment has been undertaken.

6.2 Base Traffic Flows

6.2.1 A Transport Assessment (TA) for the residential development was produced by SCP in August 2021 and includes future baseline flows for 2026 which have been used within the network diagrams attached in [Appendix E](#).

6.3 Proposed Residential Development

6.3.1 The 550no. unit residential development to the east of Cowm Top Lane (21/01349/OUT) was considered as committed development and the PCU flows were obtained from the TA submitted in support of the application. The committed development flows are shown on the network diagrams attached in [Appendix E](#).

6.4 Trip Distribution

6.4.1 Development traffic has been distributed according to the existing turning movements from the Cowm Top Lane arm. The proposed development trip distribution is shown on the network diagrams attached in [Appendix E](#).

6.5 Assessment Scenarios

6.5.1 The following scenarios are presented on the network diagrams attached in [Appendix E](#).

- 2027 base + residential development
- 2027 base + residential development + development

6.5.2 The percentage impact assessment considers the percentage increase in total traffic flows at the Queensway / Cowm Top Lane junction between the 2027 base + residential development and 2027 base + residential development + development.

6.6 Future Year Traffic Growth

6.6.1 Future year growth factors were applied to the 2026 base flows to generate future baseline flows for 2027.

6.6.2 TEMPRO v7.2 calibrated with the National Transport (NTM AF15) dataset has been used to generate traffic growth factors specific to the site's MSOA (*Rochdale 017*) for the period between 2026 and 2027.

6.6.3 A summary of the AM and PM peak period TEMPRO growth factors is shown in [Table 6.1](#).

Table 6.1 : TEMPRO Growth Factors (2026-2027)

Day / Time Period	2026-2027
Weekday AM Period	1.008
Weekday PM Period	1.008

6.7 Queensway / Cowm Top Lane – Percentage Impact Assessment

6.7.1 The percentage impact assessment results are summarised in [Table 6.2](#).

Table 6.2 : Queensway / Cowm Top Lane – Percentage Impact Assessment

Day / Time Period	2027 Base + Committed Flows	2027 Base + Committed + Development Flows	Change	% Impact
Weekday AM Period	1952	1961	+9	+0.5%
Weekday PM Period	1781	1787	+6	+0.3%

6.7.2 The analysis shows that the proposed development is expected to result in negligible increases in total traffic. When compared with the 2027 base + committed scenario, the percentage increase in total traffic as a result of the proposed development at the Queensway / Cowm Top Lane junction during the AM and PM peaks is expected to be 0.5% and 0.3% respectively.

6.8 Summary

- 6.8.1 Overall, the traffic impact assessment shows that the proposed development is expected to have a low impact on the local highway network, with low increases in queuing, delay and impact on capacity. The analysis shows that the proposed development will not have a severe impact on the local highway network, which is the threshold stated by NFFP (Paragraph 111) under which development should not be refused on highways grounds.

7. Summary and Conclusion

7.1 Summary

- 7.1.1 Mode Transport Planning has been appointed by Toby Whittaker to provide transport planning and highways advice in relation to an industrial development at the Genesis Business Park on land off Cowm Top Lane in Rochdale.
- 7.1.2 It is understood that the proposed scheme will comprise 3no. industrial units (Use Class E(g)(iii) / B2 / B8), with a GFA of 1,192sqm. The site will be accessed via an existing priority access on the western side of Cowm Top Lane that will be upgraded as part of the development proposals.
- 7.1.3 The analysis in this report has been carried out in accordance with current policy, guidance, and best practice. The results demonstrate that:
- Swept path analysis demonstrates that a 10m rigid HGV, an 11.2m waste collection vehicle and a 16.5m articulated HGV can enter and exit the site in a forward gear;
 - The proposed level of car, disabled, motorcycle and cycle parking comply with Rochdale Borough Council's adopted parking standards;
 - In accordance with local and national policy, the site is accessible by a range of sustainable modes of transport, including walking, cycling and public transport services. These travel options provide a realistic alternative to single occupancy car travel;
 - The proposed development is expected to generate **9** two-way PCU trips during the AM peak period and **6** two-way PCU trips during the PM peak period. This equates to less than 1 trip every 8 minutes on average during the AM and PM peak period;
 - When compared with the 2027 base + residential development scenario, the percentage increase in total PCU flows as a result of the proposed development at the Queensway / Cowm Top Lane junction during the AM and PM peaks is expected to be 0.5% and 0.3% respectively.
 - Overall, it can be concluded that the proposed development will not have a severe impact, which is the threshold stated by NPPF (Paragraph 111) under which development should not be refused on highways grounds.

7.2 Conclusion

- 7.2.1 In conclusion, based on the evidence and analysis within this report, there should be no highways or transport planning reasons that prevent this planning application from being approved.

APPENDICES

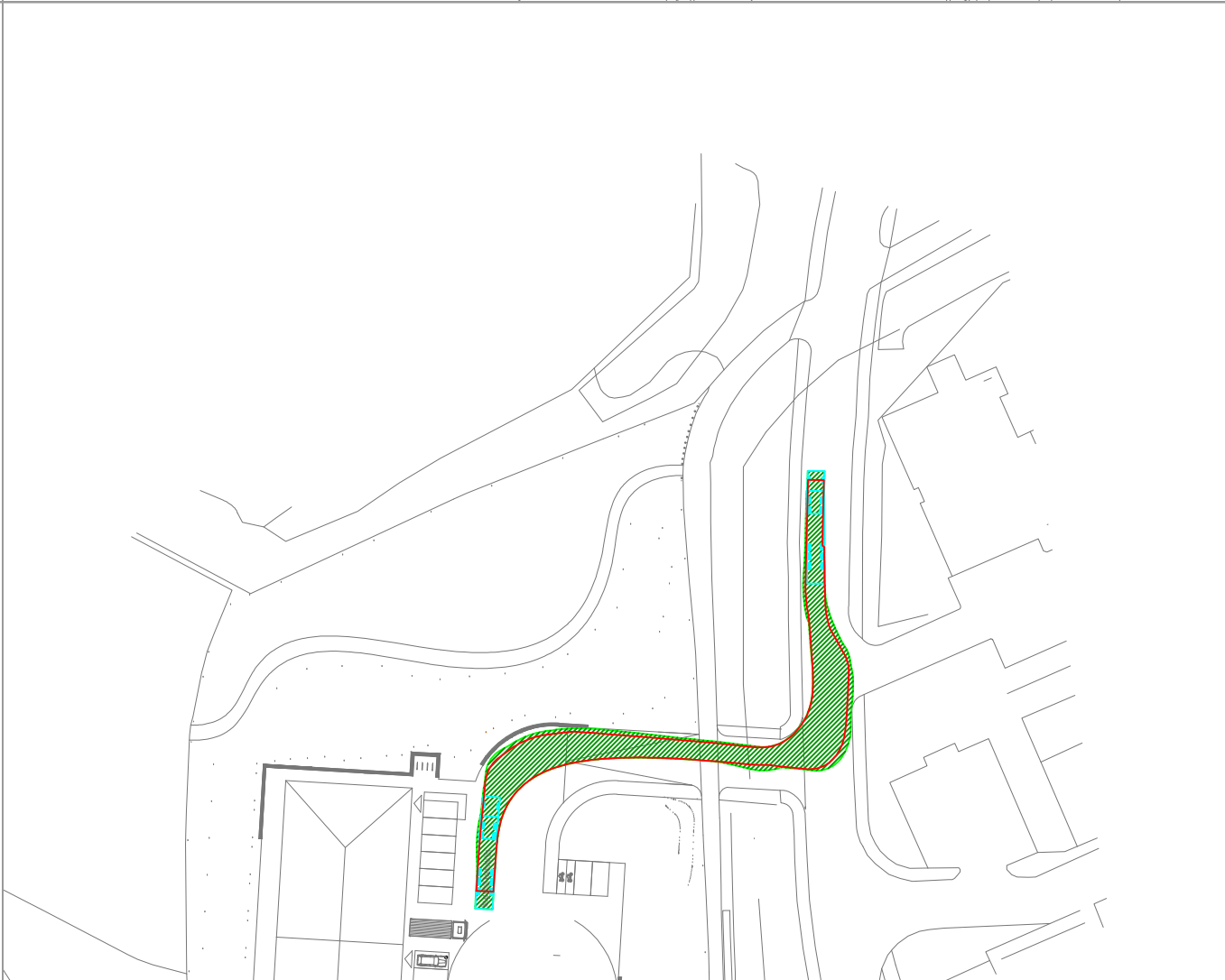
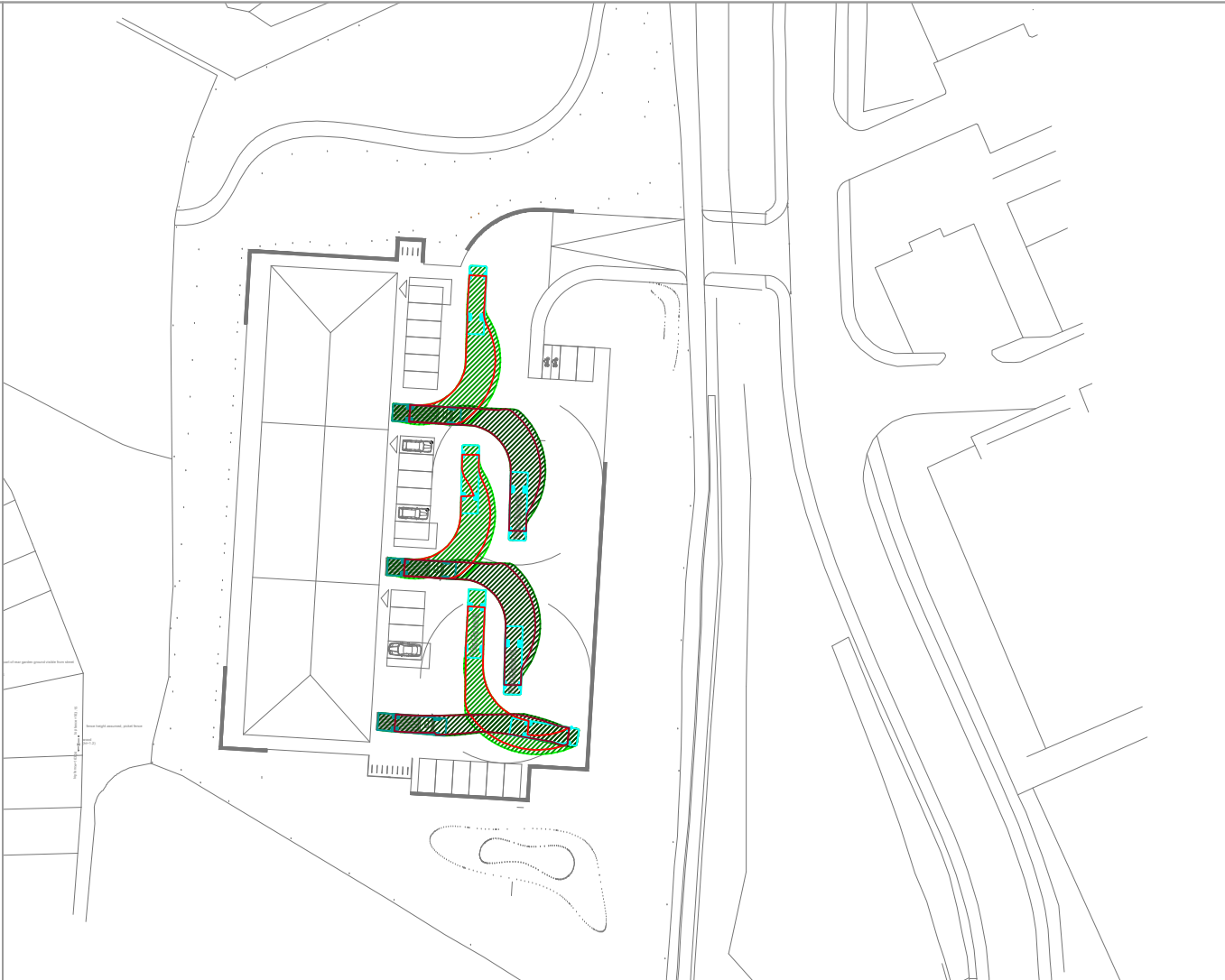
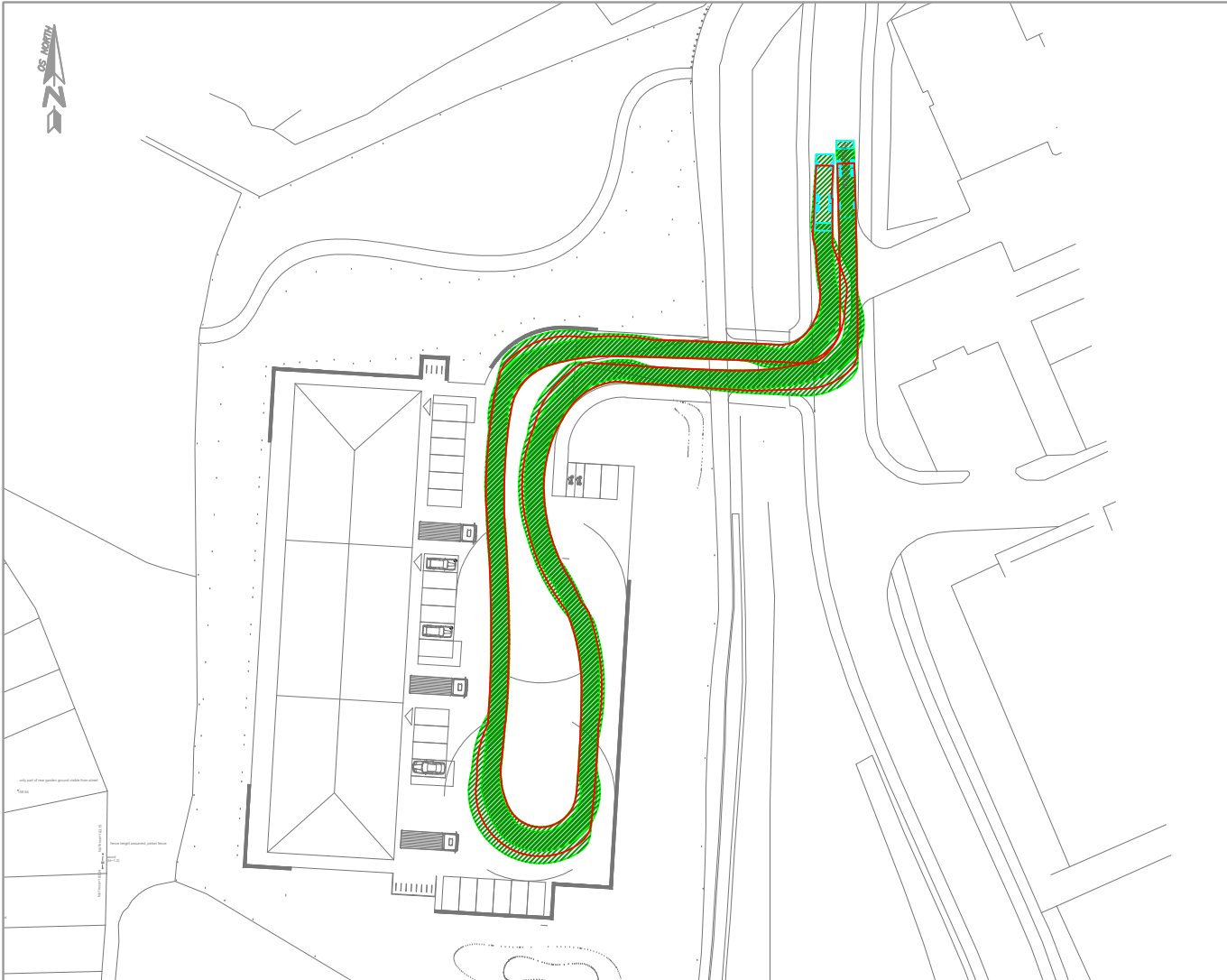
APPENDIX A

Proposed Site Plan



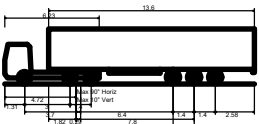
APPENDIX B

Swept Path Analysis

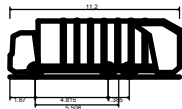


transport planning

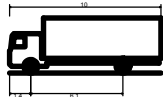
t 0161 464 9495
e info@modetransport.co.uk
w www.modetransport.co.uk



Max Legal Length (UK) Articulated Vehicle (16.5m)
Overall Length 16.500m
Overall Width 2.530m
Overall Body Height 2.530m
Max Track Width 3.632m
Min Body Ground Clearance 0.396m
Max Body Width 2.500m
Lock to lock time 6.00s
Kerb to Kerb Turning Radius 6.870m



Phoenix 2 Duo (P2-15W with Elite 6x4 chassis)
Overall Length 11.200m
Overall Width 2.530m
Overall Body Height 2.530m
Max Track Width 3.632m
Min Body Ground Clearance 0.396m
Max Body Width 2.500m
Lock to lock time 6.00s
Kerb to Kerb Turning Radius 6.870m

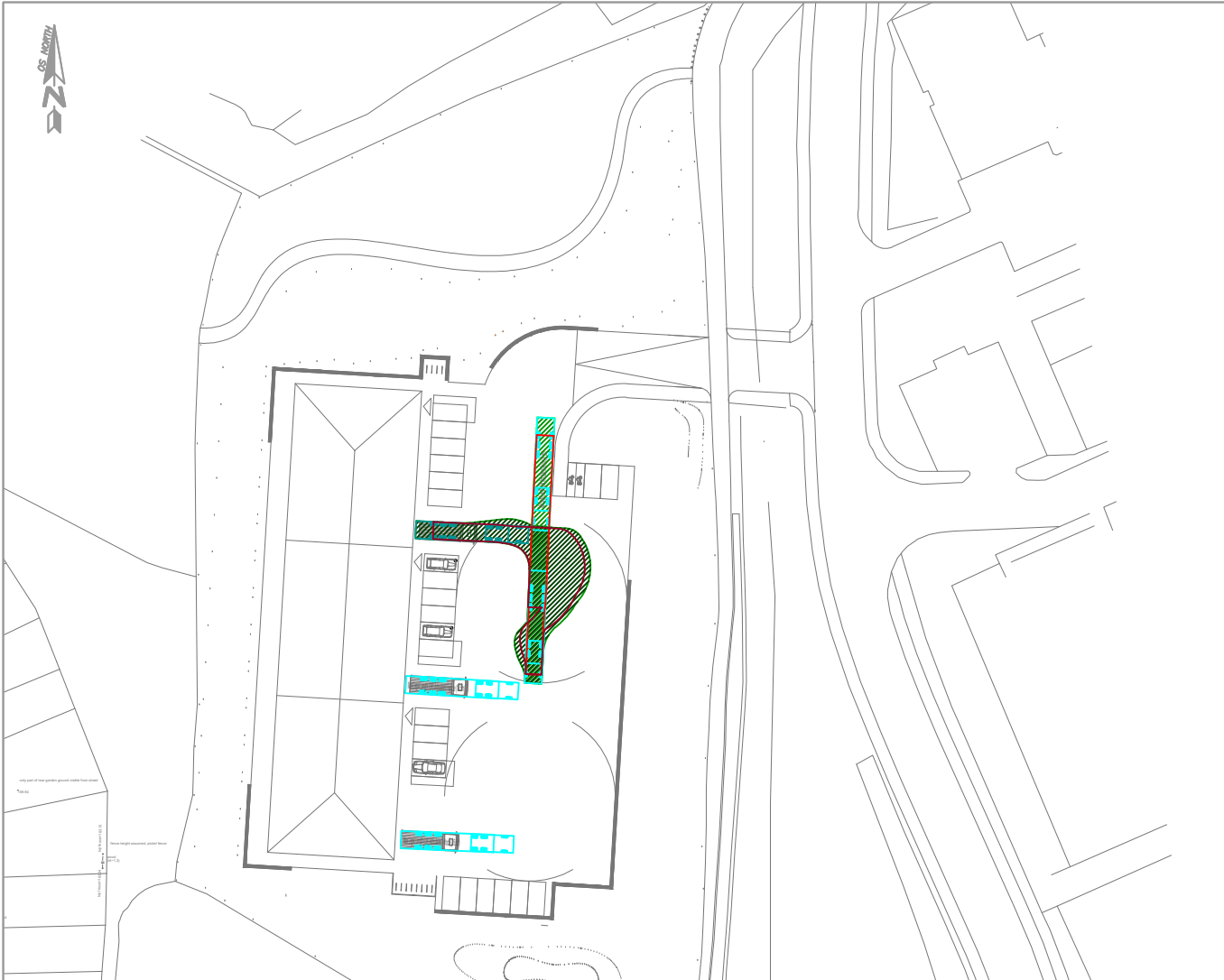


FTA Design HG Rigid Vehicle (1998)
Overall Length 10.000m
Overall Width 2.530m
Overall Body Height 2.530m
Max Track Width 3.632m
Min Body Ground Clearance 0.396m
Max Body Width 2.500m
Lock to lock time 6.00s
Kerb to Kerb Turning Radius 6.870m

- notes:
1. this drawing is to be read in conjunction with all other relevant drawings, any discrepancies, errors or omissions to be brought to the attention of overseeing organisation.
 2. all dimensions to be checked before commencement of work on site.
 3. all dimensions in metres unless otherwise stated.
 4. the design is subject to approval of rochdale metropolitan borough council.
 5. drawing based on topographical survey.

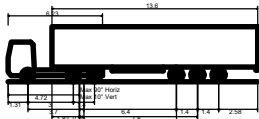
issue/revision			
A	10/11/2023	issued	
-	08/12/2022	issued	
l/r	date	description	

client: toby whittaker
project: genesis business park, rochdale
project number: J327089
scale: 1:1000@A3
drawing title:
swept path analysis
drawing number:
J32-7089-P5-001



transport planning

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Max Legal Length (UK) Articulated Vehicle (16.5m)
Overall Length 16.500m
Overall Width 2.550m
Overall Body Height 3.632m
Min Body Ground Clearance 0.395m
Max Track Width 2.500m
Lock to lock time 6.90s
Kerb to Kerb Turning Radius 6.870m

- notes:
1. this drawing is to be read in conjunction with all other relevant drawings, any discrepancies, errors or omissions to be brought to the attention of overseeing organisation.
 2. all dimensions to be checked before commencement of work on site.
 3. all dimensions in metres unless otherwise stated.
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issue/revision		
-	10/11/2023	issued
l/r	date	description

client: toby whittaker
project: genesis business park, rochdale
project number: J327089
scale: 1:1000@A3
drawing title:
swept path anlysis
drawing number:
J32-7089-PS-002

APPENDIX C

Bus Timetables



From 4 September

17A

The following additional journeys are introduced on Mondays to Fridays:

0626 from Collyhurst to Stakehill Industrial Estate

0654 from Stakehill Industrial Estate to Middleton

17B

Withdrawn and replaced by additional bus 17A journeys

Buses

17 17A



Easy access on all buses

Rochdale

Sudden

Castleton

Middleton

Blackley

Harpurhey

Collyhurst

Manchester

From 4 September 2022

For public transport information
phone **0161 244 1000**

7am – 8pm Mon to Fri

8am – 8pm Sat, Sun & public holidays

This timetable is available online at
www.tfgm.com

Operated by
Go North West

Additional information

Alternative format

To ask for leaflets to be sent to you, or to request large print, Braille or recorded information phone 0161 244 1000 or visit www.tfgm.com

Easy access on buses



Journeys run with low floor buses have no steps at the entrance, making getting on and off easier. Where shown, low floor buses have a ramp for access and a dedicated space for wheelchairs and pushchairs inside the bus. The bus operator will always try to provide easy access services where these services are scheduled to run.

Using this timetable

Timetables show the direction of travel, bus numbers and the days of the week. Main stops on the route are listed on the left. Where no time is shown against a particular stop, the bus does not stop there on that journey. Check any letters which are shown in the timetable against the key at the bottom of the page.

Where to find information about service changes

www.tfgm.com

Bus station posters

Leaflets from outlets.

Tickets and information

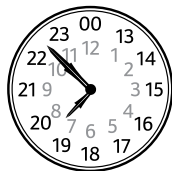
Bus companies offer a range of tickets for use on their own buses. For travel on any service in the County, use System One tickets, including DaySaver. Travelshops provide tickets, information and journey planning advice on buses, trains and trams for work and pleasure.

Using the 24 hour clock

Times are shown in four figures. The first two are the hour and the last two are the minutes.

0753 is 53 minutes past 7am

1953 is 53 minutes past 7pm



Operator details

Go North West

Queens Road Depot

Boyle Street

Manchester

M8 8UE

Telephone 0330 1234 121

email ask@gonorthwest.co.uk

Travelshops

Manchester Shudehill Interchange

Mon to Sat 7am to 6pm

Sunday 8am to 1.15pm and 2pm to 4pm

Public hols 8am to 5.20pm

Middleton Bus Station

Mon to Sat 8.30am to 1.15pm and 2pm to 4pm

Sunday* Closed

Rochdale Interchange

Mon to Fri 7am to 5.30pm

Saturday 8.30am to 1.15pm and 2pm to 4pm

Sunday* Closed

*Including public holidays

Rochdale — Middleton — Blackley — Manchester

17 17A

Mondays to Fridays

a										a										
Rochdale, Interchange			0448	0510	0518	0538		0555	0607	0618	0626	0634		0642	0650	0659	0709	0719	0729	
Sudden, Tesco			0455	0517	0525	0545		0603	0615	0626	0635	0643		0651	0700	0709	0719	0730	0741	
Castleton, Chesham Avenue			0503	0525	0533	0553		0610	0622	0633	0643	0651		0659	0708	0717	0728	0739	0750	
Stakehill Industrial Estate					0539								0654							
Middleton, Bus Station arr				0513	0535	0549	0604		0621	0633	0644	0654	0703	0704	0713	0723	0733	0743	0754	0807
Middleton, Bus Station dep	0400	0445		0515	0537	0552	0605	0611	0624	0637	0647	0657	0704		0716	0726	0736	0746	0757	0810
Rochdale Road/Charlestown Road	0406	0451		0521	0543	0558	0613	0619	0633	0646	0656	0706	0714		0726	0736	0746	0758	0809	0822
Manchester, Shudehill Interchange	0418	0503		0534	0556	0611	0627	0633	0647	0700	0710	0722	0732		0744	0754	0804	0816	0827	0840

														SD					
Rochdale, Interchange	0739	0749	0758	0809	0819	0829	0839	0849	and at	1339	1349	1359	1409		1419	1429	1439	1449	
Sudden, Tesco	0751	0801	0813	0824	0831	0840	0850	0900	frequent	1350	1400	1410	1421		1431	1441	1451	1502	
Castleton, Chesham Avenue	0800	0810	0822	0832	0839	0848	0858	0909	intervals	1358	1408	1418	1429	c	1439	1449	1459	1510	
Middleton, Bus Station arr	0817	0827	0837	0847	0854	0903	0913	0924	of not	1413	1425	1435	1446	1451	1456	1506	1516	1526	
Middleton, Bus Station dep	0820	0830	0840	0850	0857	0906	0916	0927	more than	1416	1428	1438	1451	1455	1501	1509	1519	1529	
Rochdale Road/Charlestown Road	0832	0841	0851	0900	0907	0916	0926	0937	10 minutes	1424	1436	1446	1500	1504	1509	1519	1529	1539	
Manchester, Shudehill Interchange	0850	0859	0909	0918	0925	0935	0943	0951	until	1438	1450	1500	1514	1518	1523	1533	1543	1553	

Rochdale, Interchange	1459	1509	1519	1529	1539	1549	1559	1609	1619	1629	1639	1649	1659	and at	1839	1853	1908	1923
Sudden, Tesco	1512	1522	1532	1542	1552	1602	1612	1624	1634	1643	1653	1703	1714	frequent	1850	1904	1918	1932
Castleton, Chesham Avenue	1520	1530	1540	1550	1600	1610	1620	1632	1642	1651	1701	1711	1722	intervals	1858	1912	1925	1939
Middleton, Bus Station arr	1536	1546	1556	1606	1616	1626	1636	1648	1658	1707	1717	1727	1737	of not	1913	1927	1939	1952
Middleton, Bus Station dep	1539	1549	1559	1609	1620	1630	1640	1651	1701	1710	1720	1730	1740	more than	1916	1929	1941	1953
Rochdale Road/Charlestown Road	1548	1558	1608	1618	1630	1640	1650	1700	1710	1719	1729	1739	1749	10 minutes	1924	1937	1949	2001
Manchester, Shudehill Interchange	1602	1612	1622	1632	1644	1654	1704	1714	1724	1733	1743	1753	1803	until	1938	1951	2002	2014

a – Bus 17A running via Stakehill Industrial Estate

c – Starts from Cardinal Langley School at 1440

SD – Schooldays only

♿ – All bus 17 and 17A journeys are run using easy access buses. See inside front cover of this leaflet for details

Summer times: between mid July and early September, some timetables will be different. Check www.tfgm.com for details

Mondays to Fridays (continued)

Rochdale, Interchange	1938	1953	2008	2024		2154	2214		2334
Sudden, Tesco	1946	2001	2016	2032	and	2202	2222	and	2342
Castleton, Chesham Avenue	1953	2008	2023	2038	every	2208	2228	every	2348
Middleton, Bus Station arr	2006	2021	2036	2051	15	2221	2241	20	0001
Middleton, Bus Station dep	2007	2022	2037	2052	mins	2222	2242	mins	0002
Rochdale Road/Charlestown Road	2014	2029	2044	2059	until	2229	2249	until	0009
Manchester, Shudehill Interchange	2025	2040	2055	2110		2240	2300		0020

Saturdays

Rochdale, Interchange			0509	0539		0609		0639		0709	0729	0744	0759	0814		0859	0914		0929
Sudden, Tesco			0516	0547		0617		0647		0717	0737	0752	0807	0822	and	0907	0922		0937
Castleton, Chesham Avenue			0522	0553		0624		0654		0724	0744	0759	0814	0829	every	0914	0929		0945
Middleton, Bus Station arr			0532	0603		0634		0704		0734	0754	0809	0824	0839	15	0924	0939		0955
Middleton, Bus Station dep	0430	0505	0535	0605	0629	0639	0659	0709	0729	0739	0759	0814	0829	0844	mins	0929	0941	0951	1000
Rochdale Road/Charlestown Road	0437	0512	0543	0613	0637	0647	0707	0717	0737	0747	0807	0822	0837	0852	until	0937	0950	1000	1009
Manchester, Shudehill Interchange	0447	0522	0554	0624	0648	0658	0718	0728	0748	0758	0818	0833	0848	0904		0949	1002	1013	1022

Rochdale, Interchange	0941	0953	1004	1013	1025	1037	1047		1335	1347		1635	1649	1701	1713	1725	1737	1751	1803
Sudden, Tesco	0949	1001	1014	1023	1035	1047	1058	and	1346	1358	and	1646	1659	1711	1723	1735	1747	1800	1812
Castleton, Chesham Avenue	0957	1009	1022	1031	1043	1055	1106	every	1354	1406	every	1654	1707	1719	1731	1743	1755	1808	1820
Middleton, Bus Station arr	1007	1020	1033	1045	1057	1109	1121	12	1409	1421	12	1709	1722	1734	1746	1758	1810	1822	1834
Middleton, Bus Station dep	1012	1024	1036	1048	1100	1112	1124	mins	1412	1424	mins	1712	1724	1736	1748	1800	1812	1824	1836
Rochdale Road/Charlestown Road	1021	1033	1046	1058	1110	1122	1134	until	1422	1433	until	1721	1733	1745	1757	1809	1821	1833	1845
Manchester, Shudehill Interchange	1034	1046	1059	1111	1123	1135	1148		1436	1447		1735	1746	1758	1810	1822	1834	1846	1858

Rochdale, Interchange	1815	1829	1841	1854	1909	1924	1939	1954	2009	2024	2039		2139	2154	2214	2234		2334
Sudden, Tesco	1824	1838	1850	1903	1918	1933	1948	2002	2017	2032	2048	and	2148	2202	2222	2243	and	2343
Castleton, Chesham Avenue	1832	1845	1857	1910	1925	1940	1955	2009	2023	2038	2053	every	2153	2208	2228	2248	every	2348
Middleton, Bus Station arr	1846	1859	1910	1923	1938	1953	2008	2022	2036	2051	2106	15	2206	2221	2241	2301	20	0001
Middleton, Bus Station dep	1848	1900	1912	1925	1940	1955	2010	2023	2037	2052	2107	mins	2207	2222	2242	2302	mins	0002
Rochdale Road/Charlestown Road	1857	1909	1921	1934	1949	2004	2019	2031	2045	2059	2114	until	2214	2229	2249	2309	until	0009
Manchester, Shudehill Interchange	1910	1922	1932	1945	2000	2015	2030	2042	2056	2110	2125		2225	2240	2300	2320		0020

Sundays and public holidays (except Christmas and New Year period)

Rochdale, Interchange	0607	0637	0707	0737		0907	0922	0937	0950	1000		1630	1651	1706	1721	1736	1801	1811
Sudden, Tesco	0615	0645	0715	0745	and	0915	0931	0946	0958	1011	and	1641	1702	1717	1732	1747	1810	1820
Castleton, Chesham Avenue	0621	0651	0721	0751	every	0921	0937	0952	1004	1018	every	1648	1708	1723	1738	1753	1816	1826
Middleton, Bus Station arr	0633	0703	0733	0803	30	0933	0949	1004	1017	1031	15	1701	1718	1733	1748	1804	1827	1837
Middleton, Bus Station dep	0605	0635	0705	0735	0805	mins	0935	0951	1006	1020	1034	mins	1704	1720	1735	1750	1807	1830
Rochdale Road/Charlestown Road	0612	0642	0712	0742	0813	until	0943	0959	1014	1027	1042	until	1712	1727	1742	1757	1814	1837
Manchester, Shudehill Interchange	0625	0655	0725	0755	0826		0956	1012	1027	1040	1055		1725	1740	1755	1810	1827	1850

Rochdale, Interchange	1834	1844	1905	1936		2336
Sudden, Tesco	1843	1853	1914	1944	and	2344
Castleton, Chesham Avenue	1849	1859	1920	1950	every	2350
Middleton, Bus Station arr	1900	1910	1931	2001	30	0001
Middleton, Bus Station dep	1902	1912	1933	2003	mins	0003
Rochdale Road/Charlestown Road	1909	1919	1940	2010	until	0010
Manchester, Shudehill Interchange	1922	1932	1951	2021		0021

For details of buses during the Christmas and New Year period, please phone 0161 244 1000

♿ – All bus 17 and 17A journeys are run using easy access buses. See inside front cover of this leaflet for details

17 17A

Key

Bus route

Train line

Tram line

Direction of travel

Bus station/connection point

Train station

Metrolink stop

17

Terminus

This map illustrates the bus routes 17 and 17A, which connect Manchester to Rochdale. The routes are shown as solid black lines with arrows indicating the direction of travel. Key locations along the route include Manchester (starting at Shudehill Interchange), Blackley, Alkington, Middleton, Hollin, Slattocks, Castleton, and Rochdale (ending at Rochdale Interchange). The map also shows various train and tram lines, including the Manchester to Rochdale line, the Manchester to Bury and Rochdale line, and the Manchester to Wigan, Bolton, and Liverpool line. Other features include the Exchange Square tram stop, the Victoria train station, and the Shudehill Interchange. The map also shows the locations of the Rochdale town centre, Rochdale Railway Station, and the Rochdale Interchange. The map includes a key for bus routes, train lines, tram lines, direction of travel, bus stations, train stations, Metrolink stops, and terminus points.

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Transport for Greater Manchester uses reasonable endeavours to check the accuracy of information published and to publish changes to information in a timely manner. In no event will Transport for Greater Manchester be liable for any loss that may arise from this information being inaccurate.

Mondays to Fridays

	a										a									
Manchester, Shudehill Interchange	0425	0440	0455	0510	0525	0542	0553	0604	b	b	0625	0635	b	0645	0655	b	0705	0715	0725	
Rochdale Road/Charlestown Road	0436	0451	0506	0521	0536	0553	0604	0615	0627	0630	0637	0647	0650	0657	0708	0717	0720	0730	0742	
Middleton, Bus Station arr	0445	0500	0515	0530	0545	0602	0613	0624	0636	0639	0646	0656	0700	0707	0718	0727	0732	0742	0752	
Middleton, Bus Station dep	0447	0502	0517	0532	0547	0604	0615	0626	0639	0642	0648	0658	0704	0710	0721	0730	0736	0746	0756	
Stakehill Industrial Estate			0528							0653										
Castleton, Chesham Avenue	0456	0511	0534	0541	0556	0613	0624	0635	0648		0657	0709	0716	0722	0734	0743	0750	0804	0814	
Sudden, Tesco	0503	0518	0541	0548	0603	0620	0632	0643	0656		0705	0717	0724	0730	0742	0751	0758	0812	0822	
Rochdale, Interchange	0510	0525	0548	0555	0610	0627	0639	0650	0703		0712	0724	0731	0737	0749	0759	0806	0821	0831	

	SD																		
Manchester, Shudehill Interchange	0735	0745	and at		1345	1355		1405	1415	1424	1434	1444	and at		1550	1600	and at		1900
Rochdale Road/Charlestown Road	0752	0802	frequent		1400	1411		1421	1431	1440	1451	1502	frequent		1609	1620	frequent		1916
Middleton, Bus Station arr	0802	0812	intervals		1410	1421		1431	1441	1450	1501	1512	intervals		1619	1630	intervals		1926
Middleton, Bus Station dep	0806	0815	of not		1413	1423	c	1434	1444	1454	1504	1515	of not		1622	1632	of not		1929
Castleton, Chesham Avenue	0824	0831	more than		1425	1437	1445	1448	1458	1508	1519	1529	more than		1636	1646	more than		1939
Sudden, Tesco	0832	0839	10 minutes		1433	1445	1453	1456	1506	1516	1528	1537	10 minutes		1644	1654	10 minutes		1946
Rochdale, Interchange	0841	0848	until		1442	1454	1502	1505	1515	1525	1537	1546	until		1653	1704	until		1952

Manchester, Shudehill Interchange	1915	1930		2045	2100	2115	2130	2145	2202		2342								
Rochdale Road/Charlestown Road	1931	1945	and	2100	2115	2129	2144	2159	2215	and	2355								
Middleton, Bus Station arr	1941	1954	every	2109	2124	2138	2153	2208	2224	every	0004								
Middleton, Bus Station dep	1943	1956	15	2111	2126	2140	2155	2210	2226	20	0006								
Castleton, Chesham Avenue	1953	2006	mins	2121	2136	2150	2205	2220	2236	mins	0016								
Sudden, Tesco	2000	2013	until	2128	2142	2156	2211	2226	2242	until	0022								
Rochdale, Interchange	2006	2019		2134	2148	2202	2217	2232	2248		0028								

Saturdays

Manchester, Shudehill Interchange	0445	0515	0545	0615	0635	0650		0835	0847	0859	0911	0923	0935	0947	0959	1011	1023		1623
Rochdale Road/Charlestown Road	0458	0528	0558	0628	0648	0703	and	0848	0900	0912	0924	0936	0948	1000	1012	1025	1038	and	1638
Middleton, Bus Station arr	0507	0537	0607	0637	0657	0712	every	0857	0909	0921	0933	0945	0957	1009	1021	1035	1048	every	1648
Middleton, Bus Station dep	0509	0539	0609	0639	0700	0714	15	0859	0911	0923	0935	0948	1000	1014	1026	1038	1051	12	1651
Castleton, Chesham Avenue	0518	0548	0618	0648	0709	0723	mins	0908	0920	0932	0944	0957	1010	1025	1038	1050	1103	mins	1703
Sudden, Tesco	0525	0555	0625	0655	0716	0730	until	0915	0927	0939	0951	1005	1018	1033	1046	1058	1111	until	1711
Rochdale, Interchange	0531	0601	0631	0701	0722	0736		0921	0933	0945	0958	1012	1024	1040	1053	1105	1120		1720

Manchester, Shudehill Interchange	1635	1647	1659	1711	1723	1735	1747	1800	1815	1830	1845	1900	1915	1930		2100	2115	2130	2145
Rochdale Road/Charlestown Road	1650	1702	1716	1728	1740	1753	1805	1817	1831	1846	1901	1916	1931	1945	and	2115	2129	2144	2159
Middleton, Bus Station arr	1700	1712	1726	1738	1750	1803	1815	1827	1841	1856	1911	1926	1940	1954	every	2124	2138	2153	2208
Middleton, Bus Station dep	1703	1715	1729	1741	1753	1806	1818	1830	1844	1859	1914	1929	1942	1956	15	2126	2140	2155	2210
Castleton, Chesham Avenue	1714	1726	1739	1751	1803	1815	1827	1839	1854	1909	1924	1939	1952	2006	mins	2136	2150	2205	2220
Sudden, Tesco	1722	1734	1747	1759	1811	1823	1834	1846	1901	1916	1931	1946	1958	2012	until	2142	2156	2211	2226
Rochdale, Interchange	1730	1742	1755	1807	1819	1831	1841	1853	1907	1922	1937	1952	2004	2018		2148	2202	2217	2232

Manchester, Shudehill Interchange	2202		2342	
Rochdale Road/Charlestown Road	2215	and	2355	
Middleton, Bus Station arr	2224	every	0004	
Middleton, Bus Station dep	2226	20	0006	
Castleton, Chesham Avenue	2236	mins	0016	
Sudden, Tesco	2242	until	0022	
Rochdale, Interchange	2248		0028	

a – Bus 17A running via Stakehill Industrial Estate

b – Starts from Collyhurst, Queens Road 4 minutes earlier

c – Starts from Cardinal Langley School at 1440

SD – Schooldays only

♿ – All bus 17 and 17A journeys are run using easy access buses. See inside front cover of this leaflet for details

Summer times: between mid July and early September, some timetables will be different. Check www.tfgm.com for details

Sundays and public holidays (except Christmas and New Year period)

Manchester, Shudehill Interchange	0615	0645	0715	0745	0815	0830	0845	0900		0945	1000	1015	1030	1045	1100	1115	1130	1145	1200
Rochdale Road/Charlestown Road	0625	0655	0725	0755	0825	0840	0855	0911	and	0956	1012	1027	1042	1058	1113	1128	1143	1159	1214
Middleton, Bus Station arr	0635	0705	0735	0805	0835	0850	0905	0921	every	1006	1022	1037	1052	1108	1123	1138	1153	1209	1224
Middleton, Bus Station dep	0637	0707	0737	0807	0837	0852	0907	0923	15	1008	1024	1039	1054	1110	1125	1140	1155	1211	1226
Castleton, Chesham Avenue	0646	0716	0746	0816	0846	0901	0916	0932	mins	1017	1032	1047	1103	1119	1134	1149	1204	1220	1235
Sudden, Tesco	0652	0722	0752	0822	0852	0907	0922	0938	until	1023	1038	1053	1109	1126	1141	1156	1211	1227	1242
Rochdale, Interchange	0659	0729	0801	0831	0901	0916	0931	0947		1032	1047	1102	1118	1135	1150	1205	1220	1236	1251
Manchester, Shudehill Interchange	1215		1745	1800	1820	1840	1912	1942	2012	2042	2112		2342						
Rochdale Road/Charlestown Road	1230	and	1800	1814	1834	1854	1926	1956	2026	2056	2126	and	2356						
Middleton, Bus Station arr	1240	every	1810	1824	1844	1904	1935	2005	2035	2105	2135	every	0005						
Middleton, Bus Station dep	1242	15	1812	1826	1846	1906	1937	2007	2037	2107	2137	30	0007						
Castleton, Chesham Avenue	1251	mins	1821	1835	1855	1915	1946	2016	2046	2116	2146	mins	0016						
Sudden, Tesco	1258	until	1828	1841	1901	1921	1952	2022	2052	2122	2152	until	0022						
Rochdale, Interchange	1307		1837	1851	1911	1931	2001	2031	2101	2131	2158		0028						

For details of buses during the Christmas and New Year period, please phone 0161 244 1000

♿ – All bus 17 and 17A journeys are run using easy access buses. See inside front cover of this leaflet for details

Mondays to Fridays

 Middleton bus station	0510	0610	0710	0810	0910	1010	1110	1210	1310	1410	1510	1610	1715	1815	1910	2110	2310
Boarshaw Chelford Close	0514	0614	0714	0814	0914	1014	1114	1214	1314	1414	1514	1614	1719	1819	1914	2114	2314
Stakehill Industrial Estate	0525	0625	0725	0825	0925	1025	1125	1225	1325	1425	1525	1625	1730	1830	1925	2125	2325
Castleton Chesham Avenue	0530	0630	0730	0830	0930	1030	1130	1230	1330	1430	1530	1630	1735	1835	1930	2130	2330
Kirkholt Shops	0536	0636	0736	0838	0937	1037	1137	1237	1337	1437	1535	1636	1740	1840	1935	2135	
Turf Hill Road Neston Road	0543	0643	0743	0846	0944	1044	1144	1244	1344	1444	1542	1643	1747	1847	1942	2142	
Kingsway Asda	0547	0647	0747	0851	0948	1048	1148	1248	1348	1448	1546	1647	1751	1851	1946	2146	
Kingsway JD Sports	0551	0651	0751	0855	0952	1052	1152	1252	1352	1451	1549	1650	1754	1854	1949	2149	
Firgrove Morrisons	0553	0653	0753	0857	0954	1054	1154	1254	1354	1453	1551	1652	1756	1856	1951	2151	
Firgrove	0555	0655	0755	0900	0957	1057	1157	1257	1357	1457	1554	1654	1759	1859	1954	2154	
Beswicke Royds Street	0558	0658	0758	0903	1000	1100	1200	1300	1400	1500	1557	1659	1802	1902	1957	2157	
 Rochdale Interchange	0605	0705	0805	0910	1005	1105	1205	1305	1405	1507	1602	1710	1807	1907	2002	2202	

Saturdays

 Middleton bus station	0510	0610	0710	0810	0910	1010	1110	1210	1310	1410	1510	1610	1710	1810	1910	2110	2310
Boarshaw Chelford Close	0514	0614	0714	0814	0914	1014	1114	1214	1314	1414	1514	1614	1714	1814	1914	2114	2314
Stakehill Industrial Estate	0525	0625	0725	0825	0925	1025	1125	1225	1325	1425	1525	1625	1725	1825	1925	2125	2325
Castleton Chesham Avenue	0530	0630	0730	0830	0930	1030	1130	1230	1330	1430	1530	1630	1730	1830	1930	2130	2330
Kirkholt Shops	0535	0636	0736	0837	0937	1037	1137	1237	1337	1437	1537	1637	1737	1835	1935	2135	
Turf Hill Road Neston Road	0542	0643	0743	0844	0944	1044	1144	1244	1344	1444	1544	1644	1744	1842	1942	2142	
Kingsway Asda	0546	0647	0747	0848	0948	1048	1148	1248	1348	1448	1548	1648	1748	1846	1946	2146	
Kingsway JD Sports	0549	0651	0751	0852	0952	1052	1152	1252	1352	1452	1552	1652	1752	1849	1949	2149	
Firgrove Morrisons	0551	0653	0753	0854	0954	1054	1154	1254	1354	1454	1554	1654	1754	1851	1951	2151	
Firgrove	0554	0655	0755	0857	0957	1057	1157	1257	1357	1457	1557	1657	1757	1854	1954	2154	
Beswicke Royds Street	0557	0658	0758	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1857	1957	2157	
 Rochdale Interchange	0602	0705	0805	0905	1005	1105	1205	1305	1405	1505	1605	1705	1805	1902	2002	2202	

Saturdays

 Middleton bus station	0510	0710	0910	1010	1110	1210	1310	1410	1510	1610	1710	1910	2110	2310	
Boarshaw Chelford Close	0514	0714	0914	1014	1114	1214	1314	1414	1514	1614	1714	1914	2114	2314	
Stakehill Industrial Estate	0525	0725	0925	1025	1125	1225	1325	1425	1525	1625	1725	1925	2125	2325	
Castleton Chesham Avenue	0530	0730	0930	1030	1130	1230	1330	1430	1530	1630	1730	1930	2130	2330	
Kirkholt Shops	0535	0735	0935	1035	1135	1235	1335	1435	1535	1635	1735	1935	2135		
Turf Hill Road Neston Road	0542	0742	0942	1042	1142	1242	1342	1442	1542	1642	1742	1942	2142		
Kingsway Asda	0546	0746	0946	1046	1146	1246	1346	1446	1546	1646	1746	1946	2146		
Kingsway JD Sports	0549	0749	0949	1049	1149	1249	1349	1449	1549	1649	1749	1949	2149		
Firgrove Morrisons	0551	0751	0951	1051	1151	1251	1351	1451	1551	1651	1751	1951	2151		
Firgrove	0554	0754	0954	1054	1154	1254	1354	1454	1554	1654	1754	1954	2154		
Beswicke Royds Street	0557	0757	0957	1057	1157	1257	1357	1457	1557	1657	1757	1957	2157		
 Rochdale Interchange	0602	0802	1002	1102	1202	1302	1402	1502	1602	1702	1802	2002	2202		

Mondays to Fridays

-  **Rochdale** Interchange stand G
Belfield
Firgrove Morrisons
Kingsway JD Sports
Kingsway Asda
Turf Hill Road Neston Road
Kirkholt Shops
Castleton Chesham Avenue
Stakehill Industrial Estate
Boarshaw Chelford Close
 **Middleton** bus station

0550	0700	0750	0905	1005	1105	1205	1305	1405	1500	1605	1705	1810	2010	2210
0554	0704	0754	0909	1009	1109	1209	1309	1410	1505	1610	1709	1814	2013	2213
0601	0711	0801	0915	1015	1115	1215	1315	1416	1512	1617	1718	1820	2019	2219
0606	0716	0806	0920	1020	1120	1220	1320	1421	1517	1622	1723	1825	2023	2223
0609	0719	0809	0923	1023	1123	1223	1323	1424	1520	1625	1726	1828	2026	2226
0614	0724	0814	0928	1028	1128	1228	1328	1429	1526	1631	1731	1833	2031	2231
0622	0732	0822	0934	1034	1134	1234	1334	1437	1532	1637	1739	1839	2037	2237
0630	0740	0830	0942	1042	1142	1242	1342	1445	1540	1645	1745	1846	2044	2244
0636	0746	0836	0948	1048	1148	1248	1348	1451	1546	1651	1751	1852	2049	2249
0646	0756	0846	0958	1058	1158	1258	1358	1501	1556	1701	1801	1902	2059	2259
0652	0802	0852	1004	1104	1204	1304	1404	1507	1602	1707	1807	1908	2105	2305

Saturdays

-  **Rochdale** Interchange stand G
Belfield
Firgrove Morrisons
Kingsway JD Sports
Kingsway Asda
Turf Hill Road Neston Road
Kirkholt Shops
Castleton Chesham Avenue
Stakehill Industrial Estate
Boarshaw Chelford Close
 **Middleton** bus station

0605	0705	0805	0905	1005	1105	1205	1305	1405	1505	1605	1705	1810	2010	2210
0609	0709	0809	0909	1009	1109	1209	1309	1409	1509	1609	1709	1813	2013	2213
0615	0715	0815	0915	1015	1115	1215	1315	1415	1515	1615	1715	1819	2019	2219
0620	0720	0820	0920	1020	1120	1220	1320	1420	1520	1620	1720	1823	2023	2223
0623	0723	0823	0923	1023	1123	1223	1323	1423	1523	1623	1723	1826	2026	2226
0628	0728	0828	0928	1028	1128	1228	1328	1428	1528	1628	1728	1831	2031	2231
0634	0734	0834	0934	1034	1134	1234	1334	1434	1534	1634	1734	1837	2037	2237
0642	0742	0842	0942	1042	1142	1242	1342	1442	1542	1642	1742	1844	2044	2244
0648	0748	0848	0948	1048	1148	1248	1348	1448	1548	1648	1748	1849	2049	2249
0658	0758	0858	0958	1058	1158	1258	1358	1458	1558	1658	1758	1859	2059	2259
0704	0804	0904	1004	1104	1204	1304	1404	1504	1604	1704	1804	1905	2105	2305

Saturdays

-  **Rochdale** Interchange stand G
Belfield
Firgrove Morrisons
Kingsway JD Sports
Kingsway Asda
Turf Hill Road Neston Road
Kirkholt Shops
Castleton Chesham Avenue
Stakehill Industrial Estate
Boarshaw Chelford Close
 **Middleton** bus station

0610	0810	0910	1010	1110	1210	1310	1410	1510	1610	1710	1810	2010	2210
0613	0813	0913	1013	1113	1213	1313	1413	1513	1613	1713	1813	2013	2213
0619	0819	0919	1019	1119	1219	1319	1419	1519	1619	1719	1819	2019	2219
0623	0823	0923	1023	1123	1223	1323	1423	1523	1623	1723	1823	2023	2223
0626	0826	0926	1026	1126	1226	1326	1426	1526	1626	1726	1826	2026	2226
0631	0831	0931	1031	1131	1231	1331	1431	1531	1631	1731	1831	2031	2231
0637	0837	0937	1037	1137	1237	1337	1437	1537	1637	1737	1837	2037	2237
0644	0844	0944	1044	1144	1244	1344	1444	1544	1644	1744	1844	2044	2244
0649	0849	0949	1049	1149	1249	1349	1449	1549	1649		1849	2049	2249
0659	0859	0959	1059	1159	1259	1359	1459	1559	1659		1859	2059	2259
0705	0905	1005	1105	1205	1305	1405	1505	1605	1705		1905	2105	2305

APPENDIX D TRICS Outputs

mode transport limited Lombard House, 145 Great Charles Street Birmingham, B3 3LP

Licence No: 754101

Calculation Reference: AUDIT-754101-221018-1020

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
 Category : C - INDUSTRIAL UNIT
 TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	HC HAMPSHIRE	1 days
03	SOUTH WEST	
	BR BRISTOL CITY	1 days
	DV DEVON	1 days
04	EAST ANGLIA	
	NF NORFOLK	2 days
05	EAST MIDLANDS	
	DY DERBY	1 days
06	WEST MIDLANDS	
	WM WEST MIDLANDS	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	WY WEST YORKSHIRE	1 days
08	NORTH WEST	
	BP BLACKPOOL	1 days
	LC LANCASHIRE	2 days
09	NORTH	
	CB CUMBRIA	2 days
11	SCOTLAND	
	SR STIRLING	1 days
12	CONNAUGHT	
	CS SLIGO	1 days
13	MUNSTER	
	KE KERRY	1 days
14	LEINSTER	
	KK KILKENNY	2 days
	WC WICKLOW	1 days
15	GREATER DUBLIN	
	DL DUBLIN	1 days
16	ULSTER (REPUBLIC OF IRELAND)	
	MG MONAGHAN	1 days

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

mode transport limited Lombard House, 145 Great Charles Street Birmingham, B3 3LP

Licence No: 754101

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: Gross floor area
 Actual Range: 150 to 3572 (units: sqm)
 Range Selected by User: 150 to 4000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 21/04/22

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	4 days
Wednesday	2 days
Thursday	10 days
Friday	2 days

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

Selected survey types:

Manual count	21 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)	6
Edge of Town	13
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	17
Commercial Zone	1
Residential Zone	1
Village	2

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

Secondary Filtering selection:

Use Class:

Not Known	21 days
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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®.

Filter by Site Operations Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,001 to 5,000	3 days
5,001 to 10,000	8 days
10,001 to 15,000	1 days
15,001 to 20,000	1 days
20,001 to 25,000	4 days
25,001 to 50,000	4 days

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

Population within 5 miles:

5,001 to 25,000	4 days
25,001 to 50,000	3 days
50,001 to 75,000	1 days
75,001 to 100,000	2 days
100,001 to 125,000	1 days
125,001 to 250,000	6 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	10 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.

Travel Plan:

No	21 days
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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	21 days
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This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	BP-02-C-01	POWDER COATINGS	BLACKPOOL
	CHORLEY ROAD		
	BLACKPOOL		
	LITTLE CARLETON		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	1010	sqm
	Survey date:	THURSDAY	20/06/19
2	BR-02-C-02	STAINLESS FITTINGS	BRISTOL CITY
	SOUTH LIBERTY LANE		
	BRISTOL		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	1475	sqm
	Survey date:	TUESDAY	22/09/15
3	CB-02-C-01	DOMINO'S PIZZA	CUMBRIA
	COWPER ROAD		
	PENRITH		
	GILWILLY IND. ESTATE		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	2950	sqm
	Survey date:	TUESDAY	10/06/14
4	CB-02-C-02	STEEL FABRICATION	CUMBRIA
	BLACKDYKE ROAD		
	CARLISLE		
	KINGSTOWN IND. ESTATE		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	715	sqm
	Survey date:	FRIDAY	15/10/21
5	CS-02-C-01	AV SPECIALISTS	SLIGO
	RATHFINN CLOSE		
	SLIGO		
	FINISKLIN BUSINESS PARK		
	Edge of Town		
	Commercial Zone		
	Total Gross floor area:	1112	sqm
	Survey date:	TUESDAY	28/04/15
6	DL-02-C-01	NAILS/STAPLES COMPANY	DUBLIN
	ROWAN AVENUE		
	DUBLIN		
	SANDYFORD		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	400	sqm
	Survey date:	THURSDAY	26/09/19
7	DV-02-C-02	ENERGY RECOVERY FACILITY	DEVON
	GRACE ROAD SOUTH		
	EXETER		
	MARSH BARTON TRAD. EST.		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	3513	sqm
	Survey date:	THURSDAY	06/07/17
8	DY-02-C-01	ENGINEERED PRODUCTS	DERBY
	PONTEFRAC STREET		
	DERBY		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	2600	sqm
	Survey date:	THURSDAY	25/06/15

LIST OF SITES relevant to selection parameters (Cont.)

9	HC-02-C-01 JAYS CLOSE BASINGSTOKE	ENGINEERING COMPANY	HAMPSHIRE
	Edge of Town Industrial Zone Total Gross floor area: 3000 sqm Survey date: THURSDAY 16/06/16		Survey Type: MANUAL
10	KE-02-C-01 WOODLANDS ROAD KILLARNEY	PRINT & GRAPHIC DESIGN	KERRY
	Edge of Town Industrial Zone Total Gross floor area: 600 sqm Survey date: THURSDAY 17/10/19		Survey Type: MANUAL
11	KK-02-C-01 HEBRON IND. ESTATE KILKENNY	VEHICLE UPHOLSTERY CENTRE	KILKENNY
	Edge of Town Industrial Zone Total Gross floor area: 1772 sqm Survey date: THURSDAY 26/10/17		Survey Type: MANUAL
12	KK-02-C-02 HEBRON ROAD KILKENNY	COOLING SYSTEMS COMPANY	KILKENNY
	Edge of Town Industrial Zone Total Gross floor area: 3572 sqm Survey date: FRIDAY 04/10/19		Survey Type: MANUAL
13	LC-02-C-03 GOLDEN HILL LANE LEYLAND	TIMBER SUPPLIES	LANCASHIRE
	Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 150 sqm Survey date: TUESDAY 06/11/18		Survey Type: MANUAL
14	LC-02-C-06 TOLLGATE ROAD BURSCOUGH	STEEL FABRICATION	LANCASHIRE
	Edge of Town Industrial Zone Total Gross floor area: 700 sqm Survey date: THURSDAY 21/04/22		Survey Type: MANUAL
15	MG-02-C-02 COOLSHANNAGH ROAD MONAGHAN COOLSHANNAGH	ENGINEERING COMPANY	MONAGHAN
	Edge of Town Residential Zone Total Gross floor area: 3240 sqm Survey date: WEDNESDAY 16/11/16		Survey Type: MANUAL
16	NF-02-C-03 ELVIN WAY NORWICH HELLESDON	SHEET METAL CONTRACTOR	NORFOLK
	Edge of Town Industrial Zone Total Gross floor area: 260 sqm Survey date: THURSDAY 07/11/19		Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

17	NF-02-C-04	EXHIBITION DESIGN & MANUF.	NORFOLK
	FLETCHER WAY		
	NORWICH		
	UPPER HELLESDON		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	690 sqm	
	Survey date: THURSDAY	14/11/19	Survey Type: MANUAL
18	SR-02-C-01	SPECIALIST MODEL MAKING	STIRLING
	BORROWMEADOW ROAD		
	STIRLING		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	2350 sqm	
	Survey date: MONDAY	16/06/14	Survey Type: MANUAL
19	WC-02-C-01	FOAM INSULATION	WICKLOW
	CHARVEY LANE		
	RÁTHNEW		
	COMMONS		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total Gross floor area:	968 sqm	
	Survey date: MONDAY	28/05/18	Survey Type: MANUAL
20	WM-02-C-05	INDIAN CATERING	WEST MIDLANDS
	ICKNIELD STREET		
	BIRMINGHAM		
	HOCKLEY		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	256 sqm	
	Survey date: MONDAY	22/11/21	Survey Type: MANUAL
21	WY-02-C-03	COMPUTER MANUFACTURER	WEST YORKSHIRE
	INMOOR ROAD		
	NEAR BRADFORD		
	BIRKENSHAW		
	Neighbourhood Centre (PPS6 Local Centre)		
	Village		
	Total Gross floor area:	1890 sqm	
	Survey date: WEDNESDAY	10/10/18	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.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
BO-02-C-01	Covid-19
EC-02-C-02	Covid-19
GS-02-C-02	Covid-19
LC-02-C-05	Covid-19
MA-02-C-01	Covid-19
NN-02-C-01	Covid-19
TV-02-C-02	Covid-19
VG-02-C-01	Covid-19

mode transport limited Lombard House, 145 Great Charles Street Birmingham, B3 3LP

Licence No: 754101

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

TOTAL 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	3	1350	0.074	3	1350	0.000	3	1350	0.074
06:00 - 07:00	4	1600	0.203	4	1600	0.031	4	1600	0.234
07:00 - 08:00	19	1636	0.341	19	1636	0.068	19	1636	0.409
08:00 - 09:00	20	1648	0.464	20	1648	0.133	20	1648	0.597
09:00 - 10:00	21	1582	0.325	21	1582	0.217	21	1582	0.542
10:00 - 11:00	21	1582	0.268	21	1582	0.241	21	1582	0.509
11:00 - 12:00	21	1582	0.226	21	1582	0.214	21	1582	0.440
12:00 - 13:00	21	1582	0.265	21	1582	0.274	21	1582	0.539
13:00 - 14:00	21	1582	0.310	21	1582	0.352	21	1582	0.662
14:00 - 15:00	21	1582	0.256	21	1582	0.268	21	1582	0.524
15:00 - 16:00	21	1582	0.157	21	1582	0.250	21	1582	0.407
16:00 - 17:00	21	1582	0.154	21	1582	0.337	21	1582	0.491
17:00 - 18:00	21	1582	0.111	21	1582	0.391	21	1582	0.502
18:00 - 19:00	21	1582	0.042	21	1582	0.196	21	1582	0.238
19:00 - 20:00	4	1077	0.139	4	1077	0.163	4	1077	0.302
20:00 - 21:00	3	1350	0.074	3	1350	0.099	3	1350	0.173
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.409			3.234			6.643

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:	150 - 3572 (units: sqm)
Survey date range:	01/01/14 - 21/04/22
Number of weekdays (Monday-Friday):	21
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	8

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.

mode transport limited Lombard House, 145 Great Charles Street Birmingham, B3 3LP

Licence No: 754101

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

OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

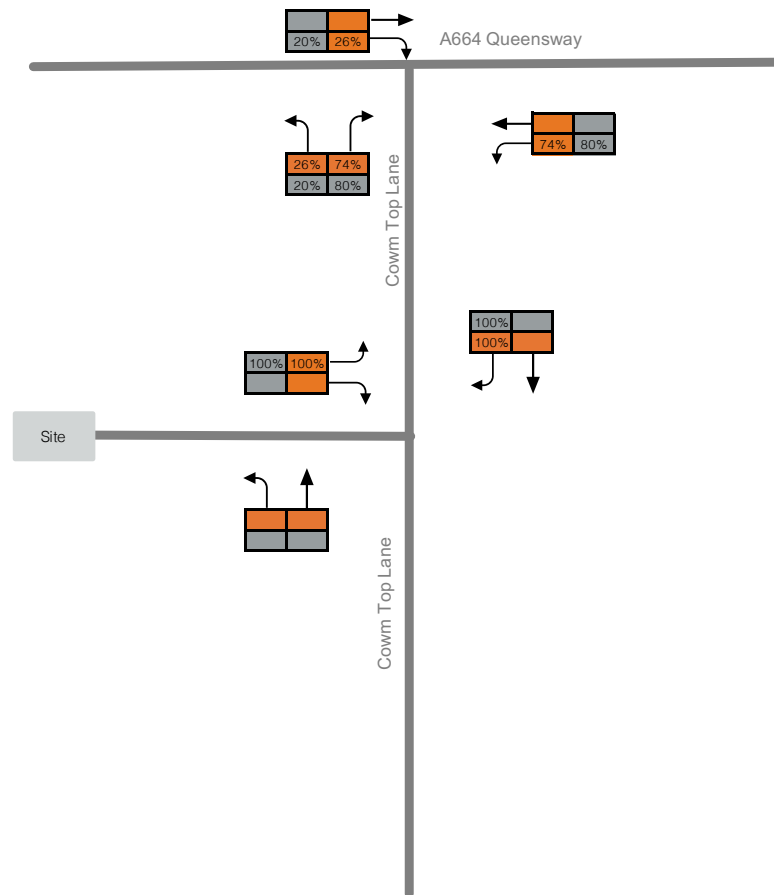
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	3	1350	0.000	3	1350	0.000	3	1350	0.000
06:00 - 07:00	4	1600	0.047	4	1600	0.016	4	1600	0.063
07:00 - 08:00	19	1636	0.039	19	1636	0.029	19	1636	0.068
08:00 - 09:00	20	1648	0.055	20	1648	0.036	20	1648	0.091
09:00 - 10:00	21	1582	0.048	21	1582	0.051	21	1582	0.099
10:00 - 11:00	21	1582	0.051	21	1582	0.051	21	1582	0.102
11:00 - 12:00	21	1582	0.051	21	1582	0.036	21	1582	0.087
12:00 - 13:00	21	1582	0.066	21	1582	0.078	21	1582	0.144
13:00 - 14:00	21	1582	0.048	21	1582	0.045	21	1582	0.093
14:00 - 15:00	21	1582	0.033	21	1582	0.033	21	1582	0.066
15:00 - 16:00	21	1582	0.030	21	1582	0.039	21	1582	0.069
16:00 - 17:00	21	1582	0.018	21	1582	0.024	21	1582	0.042
17:00 - 18:00	21	1582	0.012	21	1582	0.009	21	1582	0.021
18:00 - 19:00	21	1582	0.000	21	1582	0.006	21	1582	0.006
19:00 - 20:00	4	1077	0.000	4	1077	0.139	4	1077	0.139
20:00 - 21:00	3	1350	0.000	3	1350	0.074	3	1350	0.074
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.498			0.666			1.164

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

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

APPENDIX E

Network Flow Diagrams



5

NOTES

AM Network Peak Hour (07:00-08:00)
PM Network Peak Hour (16:15 - 17:15)
All Flows are in PCU's

LEGEND



Client
Genesis Business Park,
Rochdale
J327089

Trip Distribution

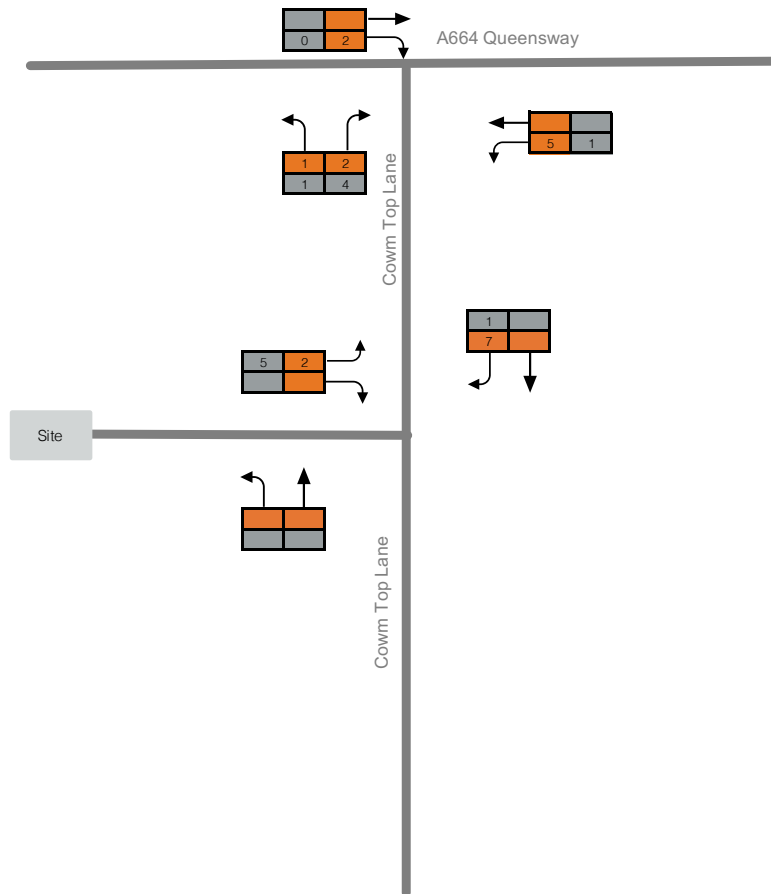
PREPARED
LCW

CHECKED
ME

mode
transport planning



	A	D
AM	7	2
PM	1	5



5

NOTES

AM Network Peak Hour (07:00-08:00)
PM Network Peak Hour (16:15 - 17:15)
All Flows are in PCU's

LEGEND

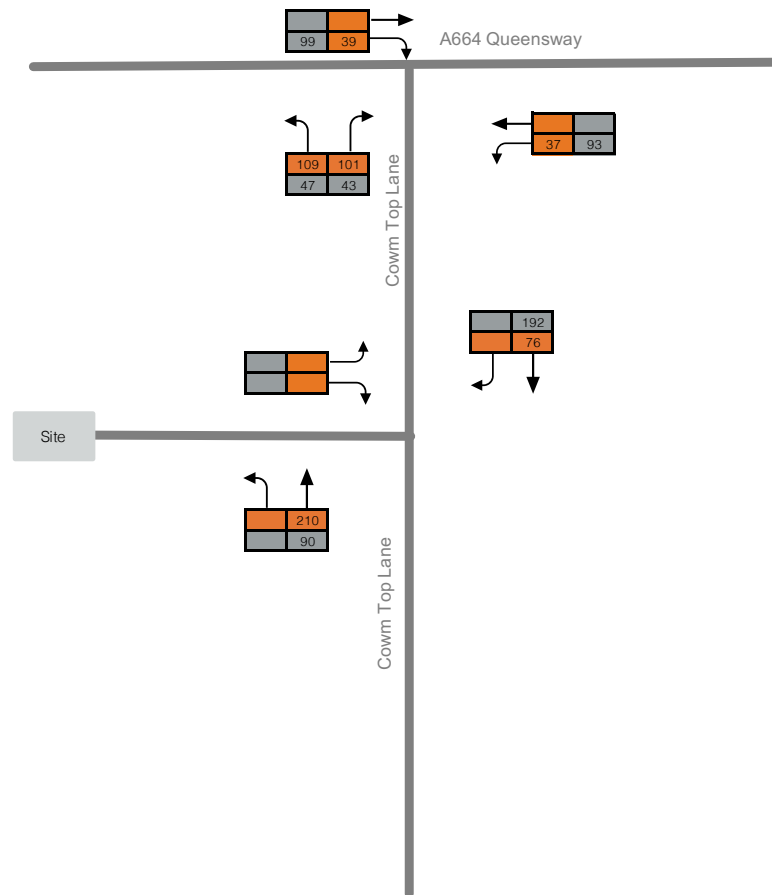
AM	PM
----	----

Client
Genesis Business Park,
Rochdale
J327089

Development Trips

PREPARED CHECKED
LCW ME

mode
transport planning



NOTES

AM Network Peak Hour (07:00-08:00)
PM Network Peak Hour (16:15 - 17:15)
All Flows are in PCU's

LEGEND

 AM
 PM

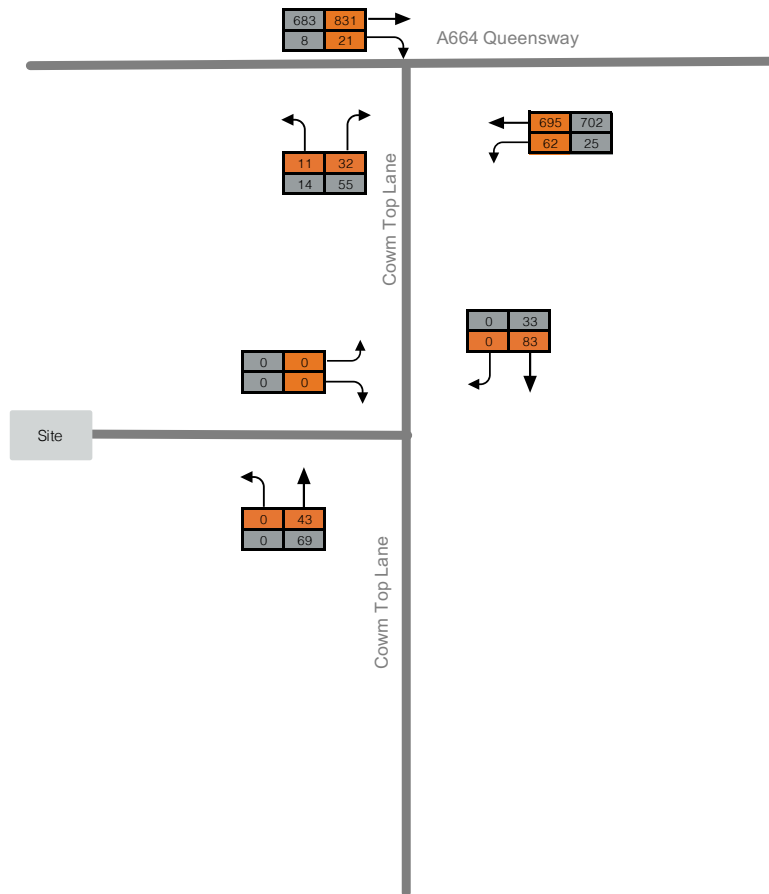
Client
Genesis Business Park,
Rochdale
J327089

Committed Development

PREPARED
LCW

CHECKED
ME

mode
transport planning



NOTES

AM Network Peak Hour (07:00-08:00)
PM Network Peak Hour (16:15 - 17:15)
All Flows are in PCU's

LEGEND



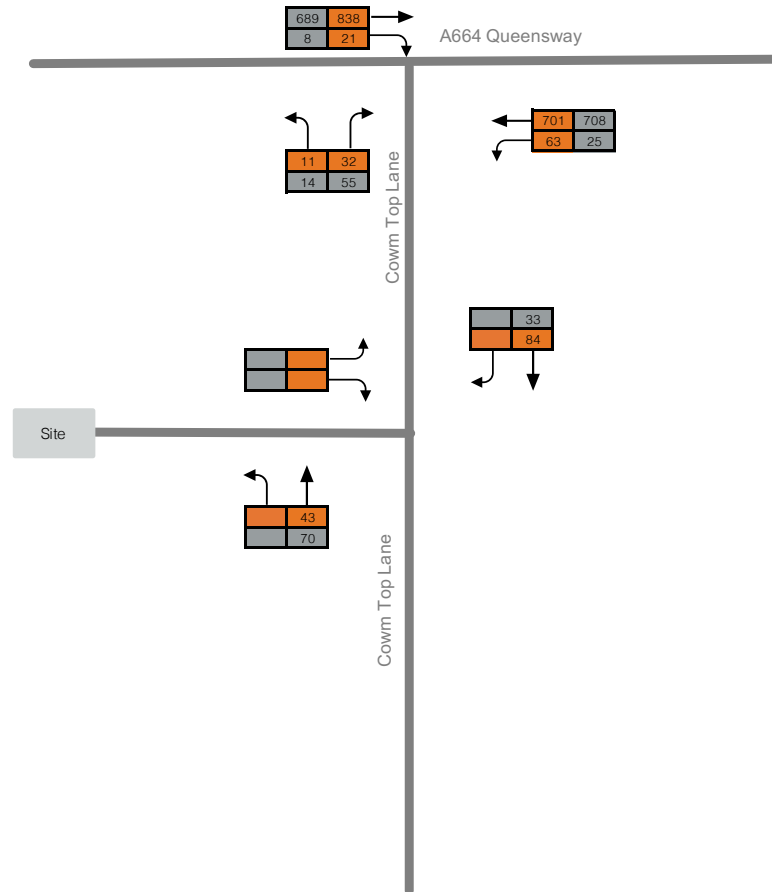
Client
Genesis Business Park,
Rochdale
J327089

2026 Base
October 2022

PREPARED
LCW

CHECKED
ME

mode
transport planning



NOTES

AM Network Peak Hour (07:00-08:00)

PM Network Peak Hour (16:15 - 17:15)

All Flows are in PCU's

LEGEND

 AM

 PM

Client

Genesis Business Park,
Rochdale

J327089

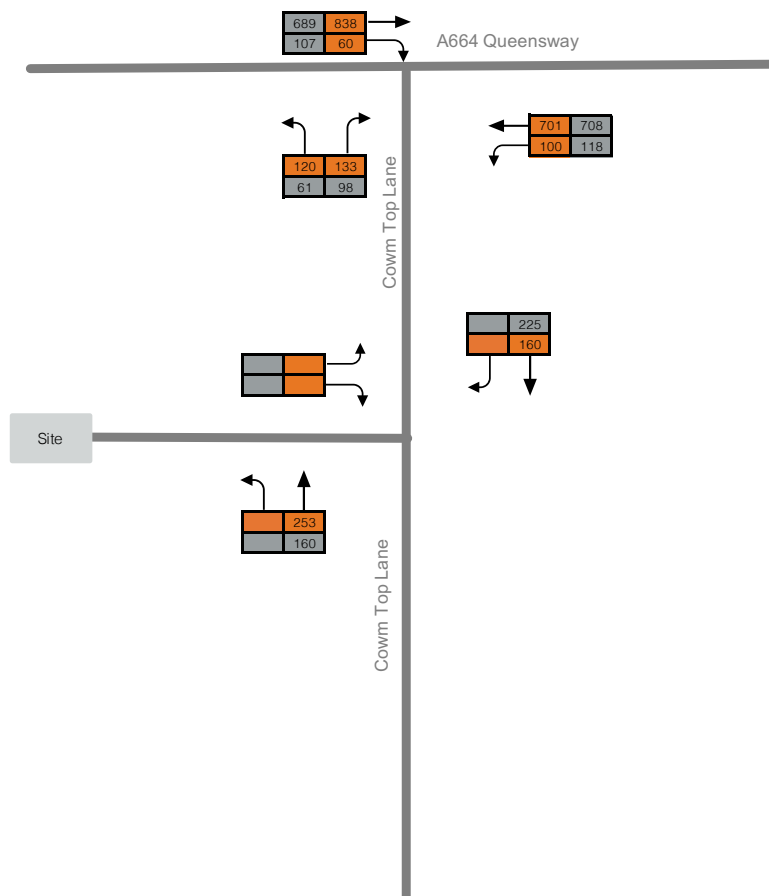
2027 Base

PREPARED CHECKED

LCW ME

mode

transport planning



NOTES

AM Network Peak Hour (07:00-08:00)

PM Network Peak Hour (16:15 - 17:15)

All Flows are in PCU's

LEGEND

AM

PM

Client

Genesis Business Park,
Rochdale

J327089

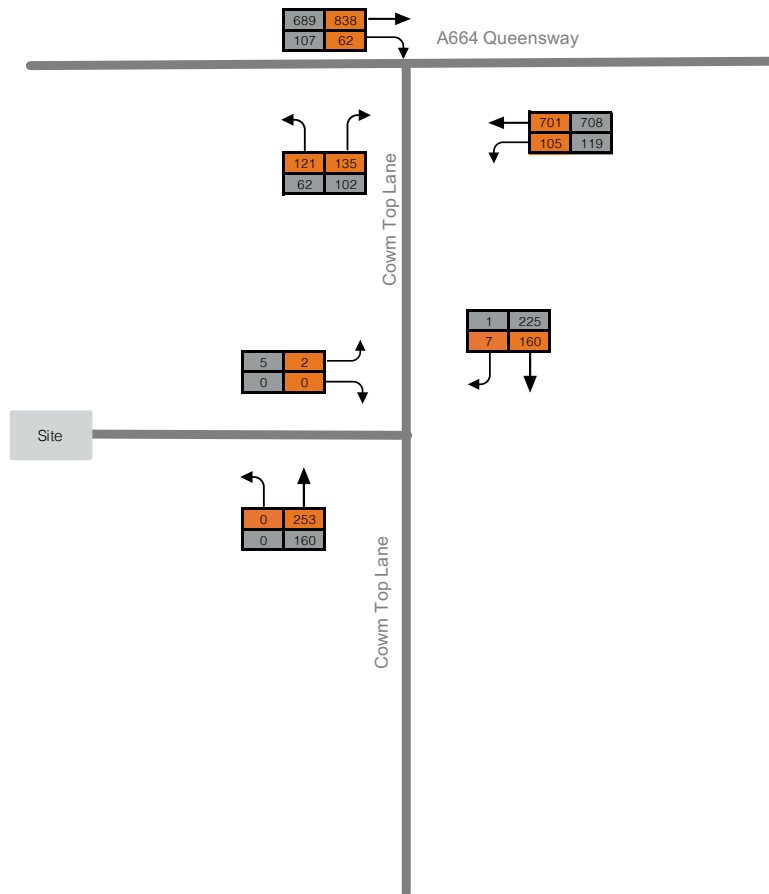
2027 Base + Committed
Development

October 2022

PREPARED
LCW

CHECKED
ME

mode
transport planning



NOTES

AM Network Peak Hour (07:00-08:00)

PM Network Peak Hour (16:15 - 17:15)

All Flows are in PCU's

LEGEND

	AM
	PM

Client

Genesis Business Park,
Rochdale

J327089

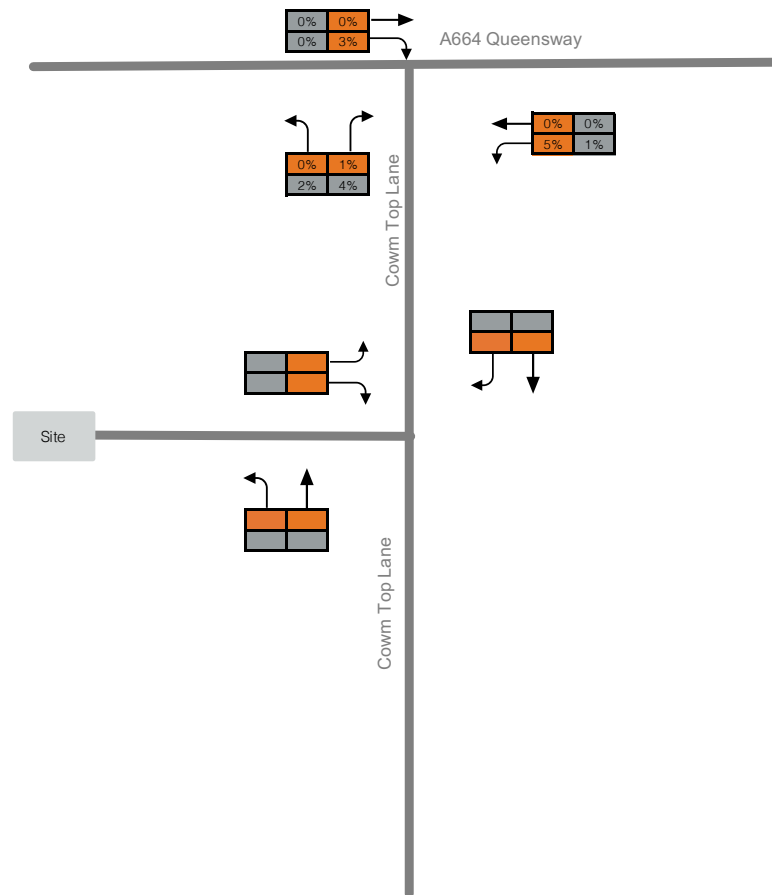
2027 Base + Committed
Development + Development
Trips

PREPARED CHECKED

LCW ME

mode

transport planning



NOTES

AM Network Peak Hour (07:00-08:00)
PM Network Peak Hour (16:15 - 17:15)
All Flows are in PCU's

LEGEND



Client

Genesis Business Park,
Rochdale

J327089

2027 Base + Committed
Development + Development
Trips - Percentage Increase

PREPARED CHECKED
LCW ME

mode
transport planning



keep up with mode:



Birmingham
☎ 0121 794 8390

London
☎ 020 7293 0217

Manchester
☎ 0161 464 9495

Reading
☎ 0118 206 2945

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