



Toby Whittaker

# Genesis Business Park, Rochdale

## Transport Statement

December 2022



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## Transport Statement

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## APPENDICES

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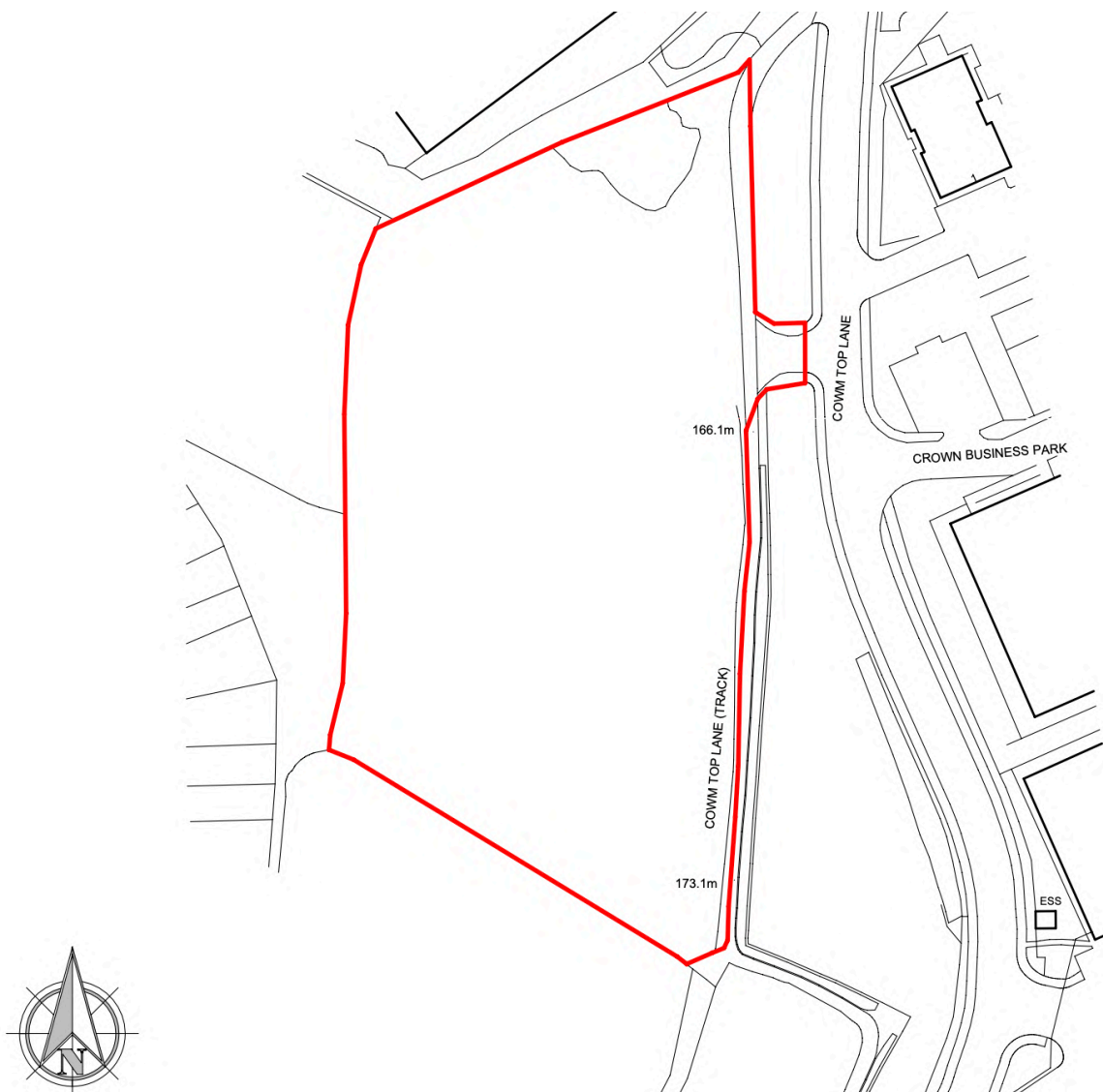
APPENDIX E Network Flow Diagrams

# 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 However, although the 2007 guidance has been superseded, it nonetheless remains instructive and has been used to inform the overall structure of the TS.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 was agreed with RMBC Highways via email on Tuesday 18<sup>th</sup> October 2022.

## 1.4 Report Structure

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

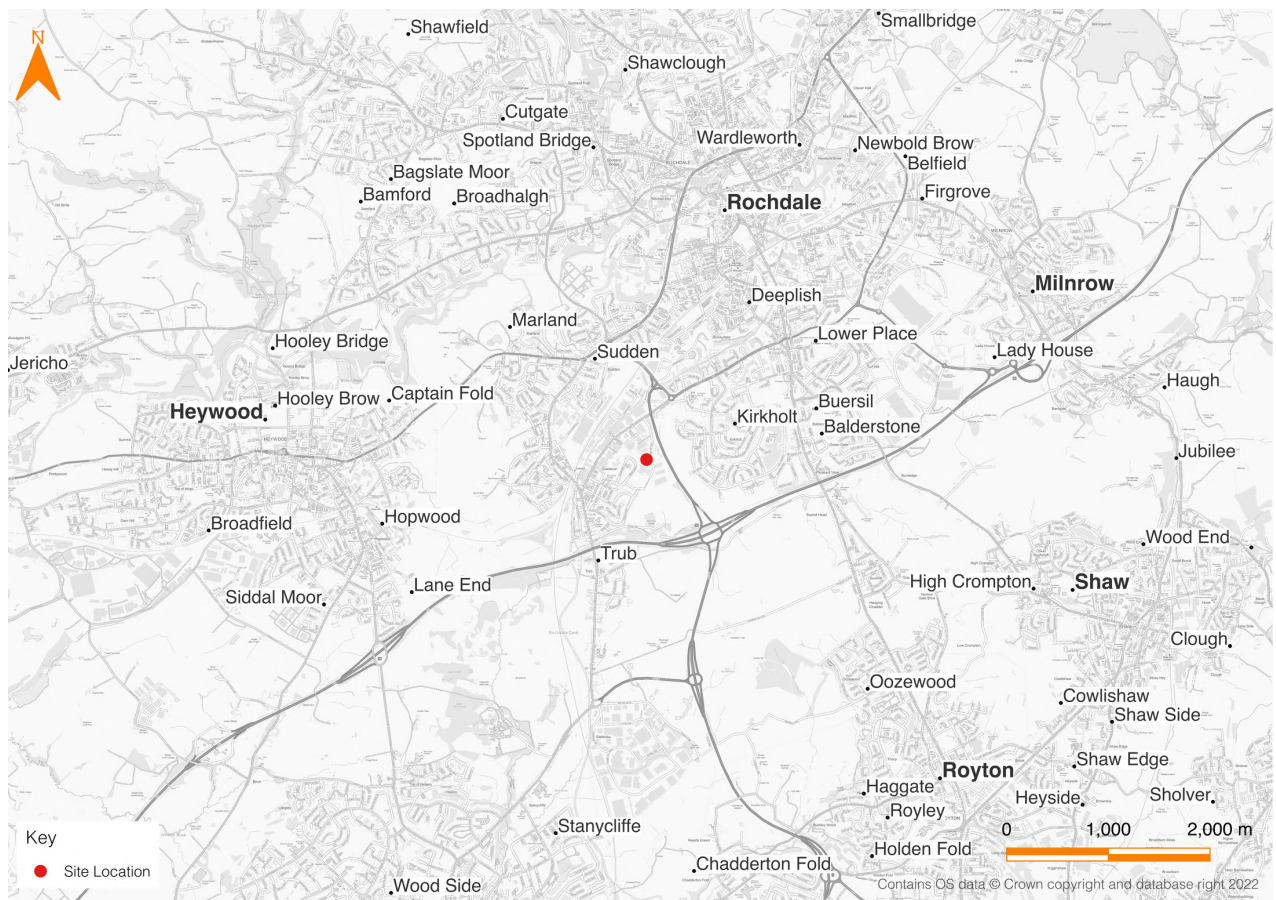
- Chapter 2 describes the site location and local highway network;
- Chapter 3 outlines the development proposals, vehicular access, servicing and parking;
- Chapter 4 details accessibility by non-car modes, including public transport, cycle and on foot;
- Chapter 5 details the expected trip generation;
- 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

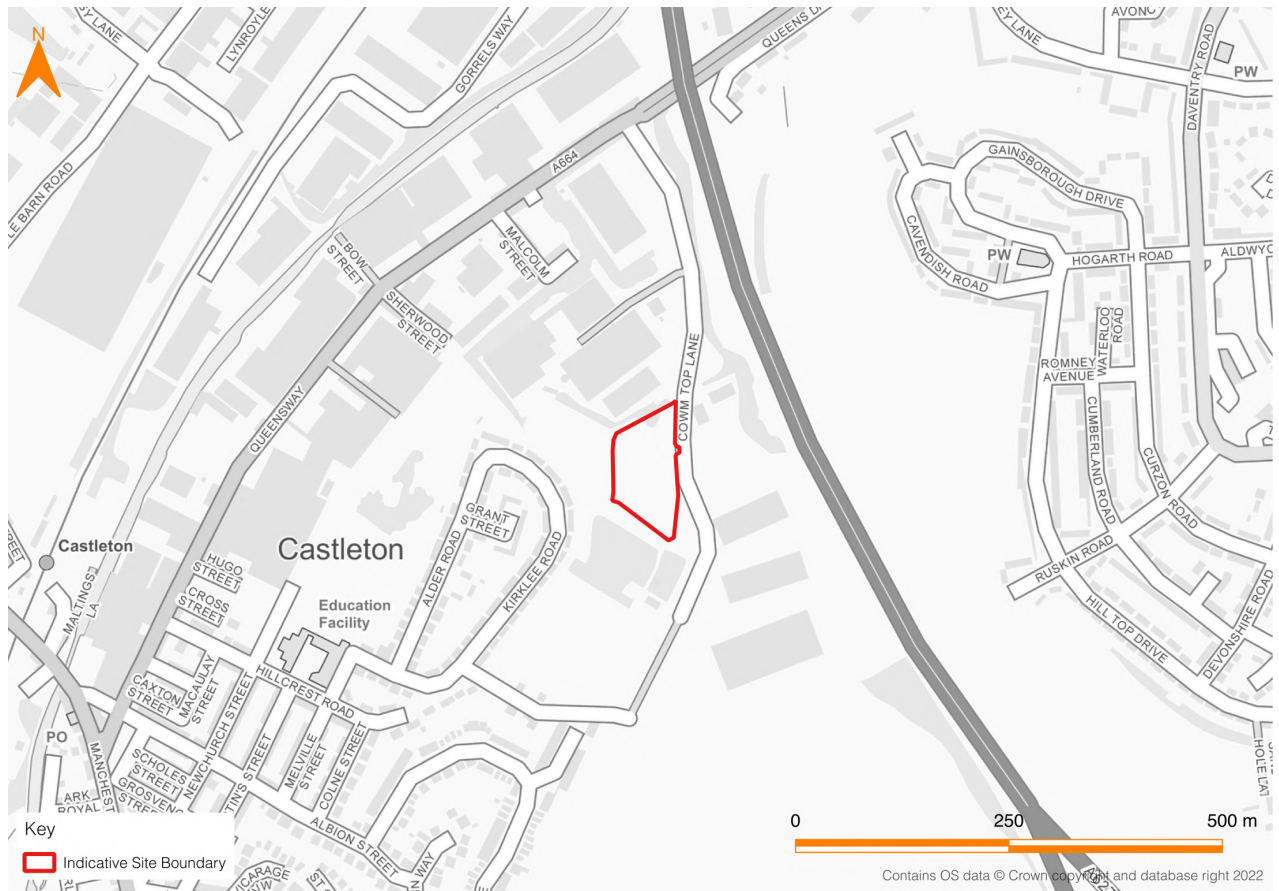


### 2.2 Local Highway Network

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 has been undertaken which shows that the vehicle can enter and exit via the site access in a forward gear and manoeuvre within the site.

3.3.3 Swept path analysis for a 10m rigid HGV and an 11.2m refuse collection vehicle is shown in [Figure 3.3](#) and [Figure 3.4](#) respectively, with the full drawings (J32-7089-PS-002/003) attached in [Appendix B](#).

**Figure 3.2 : Swept Path Analysis – 10m Rigid HGV & 11.2m Refuse Collection Vehicle**



## 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<br>Minimum of 2 spaces | 1 space / 2,800sqm<br>Minimum of 2 spaces |

| Land Use | Maximum Car Parking | Minimum Disabled Parking Standard                           | Minimum Cycle Parking                   | Minimum Motorcycle Parking                |
|----------|---------------------|-------------------------------------------------------------|-----------------------------------------|-------------------------------------------|
| B8       | 1 space / 100sqm    | 3 spaces or 6% of total capacity (whichever is the greater) | 1 space / 850sqm<br>Minimum of 2 spaces | 1 space / 4,000sqm<br>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](#).

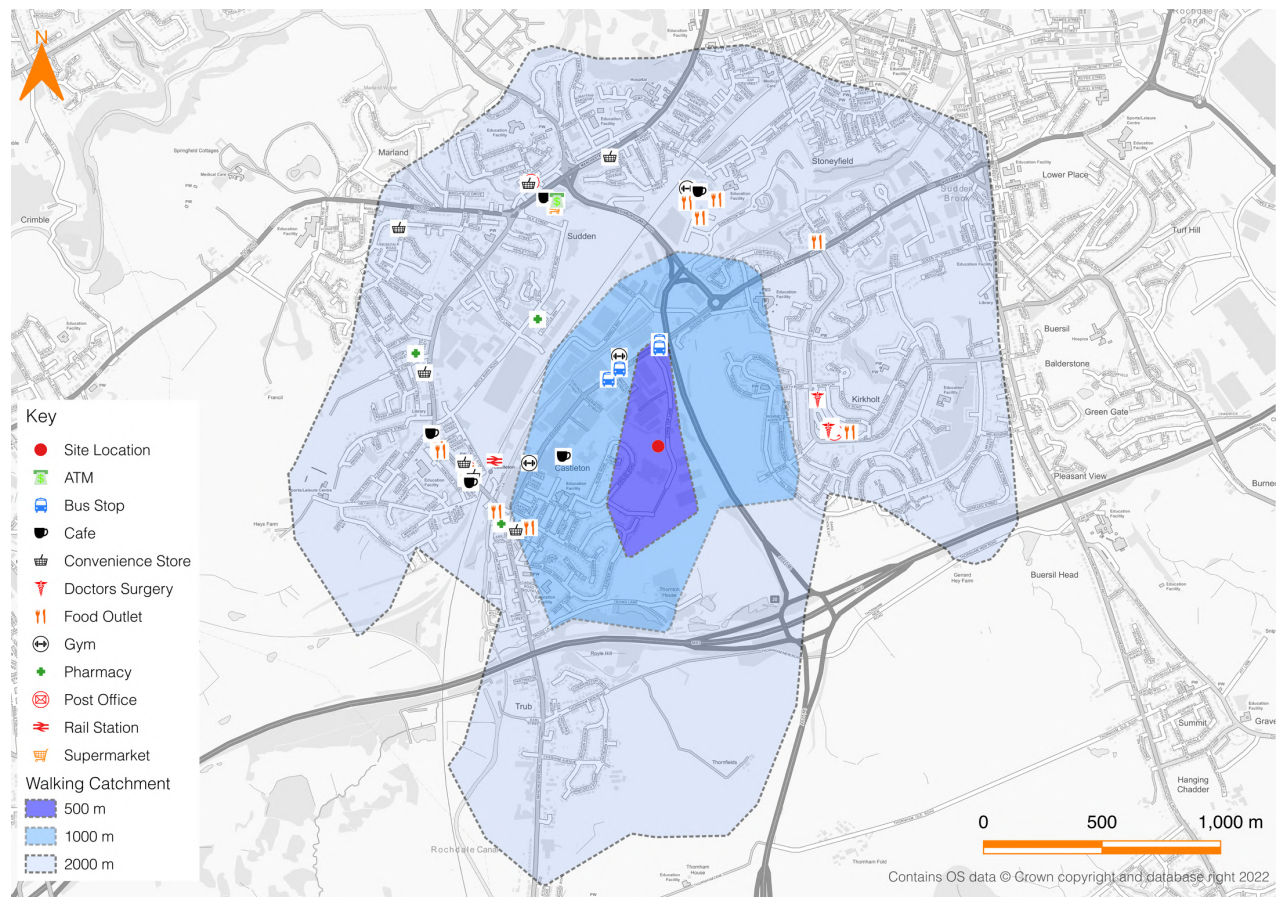
**Table 4.1 : CIHT Acceptable Walking Distances**

| 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.

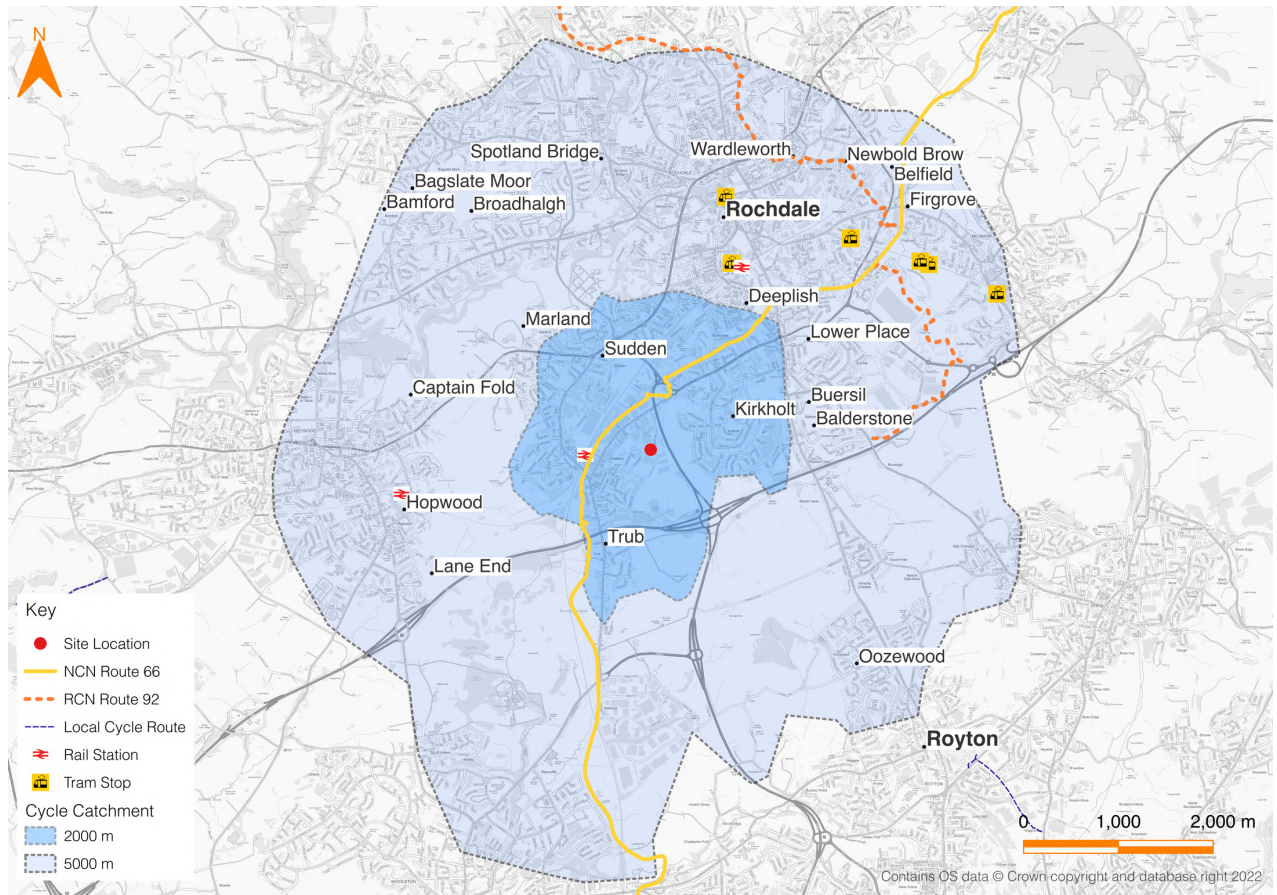
### 4.3 Cycle Accessibility

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

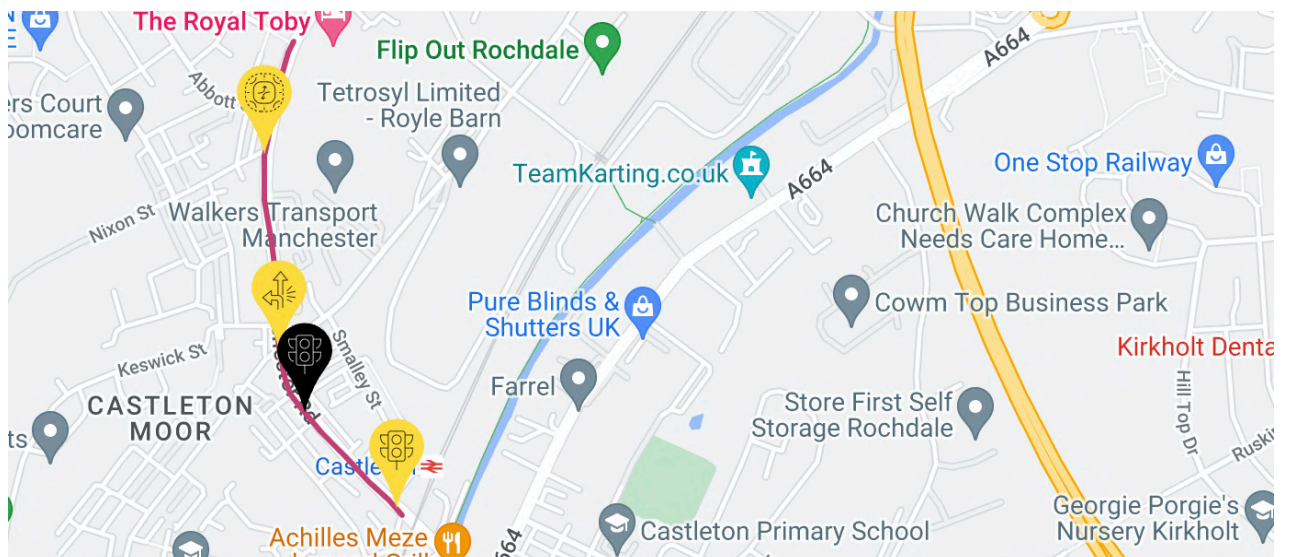
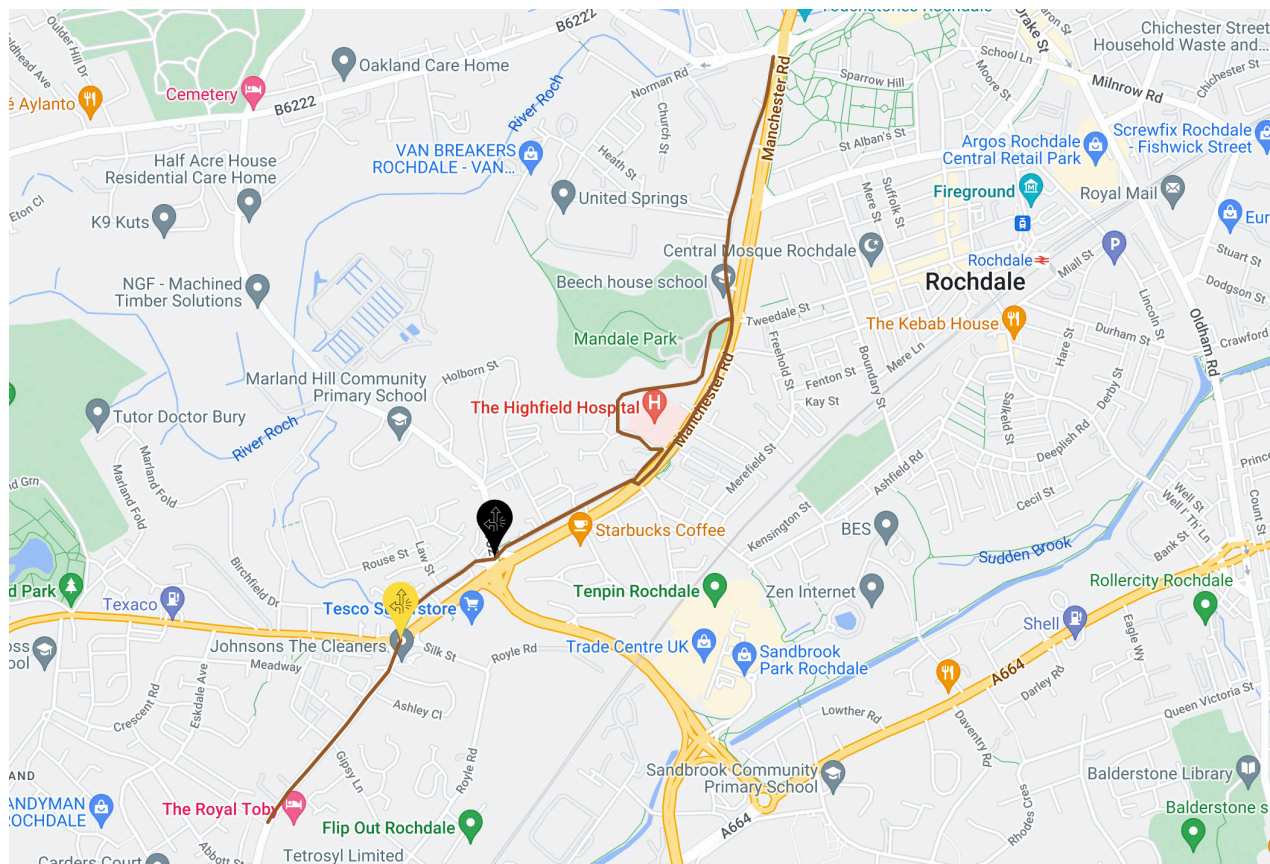


Figure 4.5 : Castleton-Rochdale Walking and Cycling Corridor Improvements – Phase 2



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.

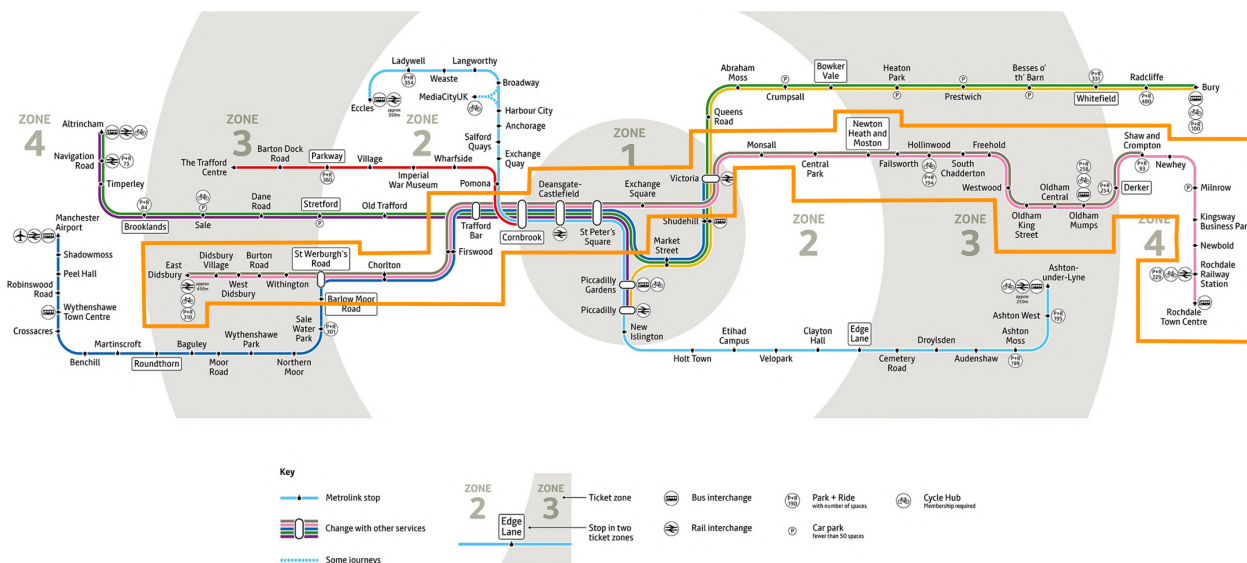
4.4.4 Regular bus services operate throughout the week and weekend and are therefore a viable option for accessing local amenities for future residents of the site.

#### 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<br><i>Employment – Industrial Unit</i> | 0.464                      | 0.133  | <b>0.597</b> | 0.111                      | 0.391  | <b>0.502</b> |
| Proposed Development<br>(1,192 sqm)              | 5                          | 2      | <b>7</b>     | 1                          | 5      | <b>6</b>     |

- 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<br><i>Employment – Industrial Unit</i> | 0.055                      | 0.036  | <b>0.091</b> | 0.012                      | 0.009  | <b>0.021</b> |
| Proposed Development<br>(1,192 sqm)              | 1                          | 0      | <b>1</b>     | 0                          | 0      | <b>0</b>     |

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        | <b>6</b> | 1                           | 5        | <b>6</b> |
| Employment – Industrial Estate – HGV Trips       | 1                          | 0        | <b>1</b> | 0                           | 0        | <b>0</b> |
| <b>Total</b>                                     | <b>5</b>                   | <b>2</b> | <b>7</b> | <b>1</b>                    | <b>5</b> | <b>6</b> |

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 and 11.2m waste collection vehicle 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.

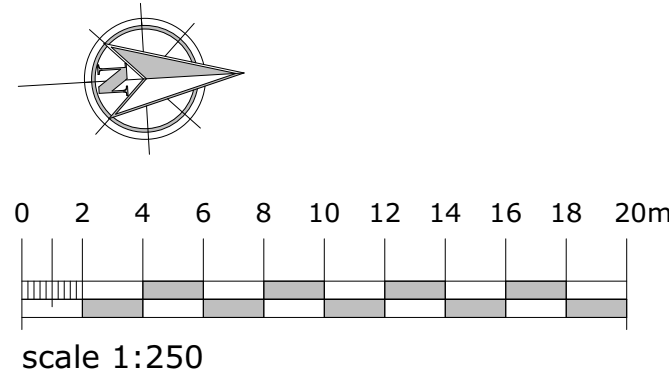
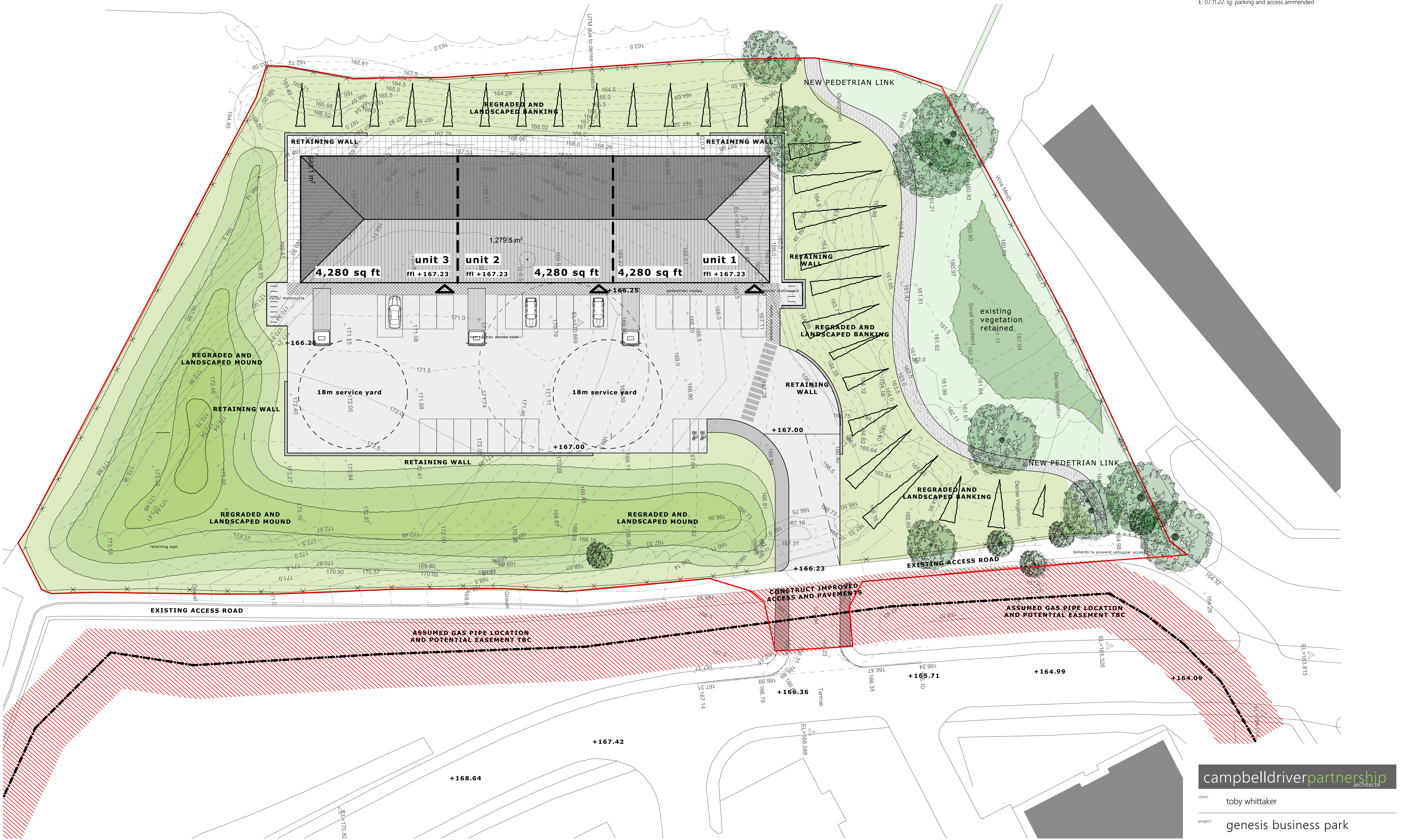
### 7.2 Conclusion

- 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



**campbelldriverpartnership**  
architects

client: toby whittaker

project: genesis business park

cowm top lane rochdale

sheet: proposed site plan

job no: 22.113      dwg no: 002      E

scale: 1:250 @ A1

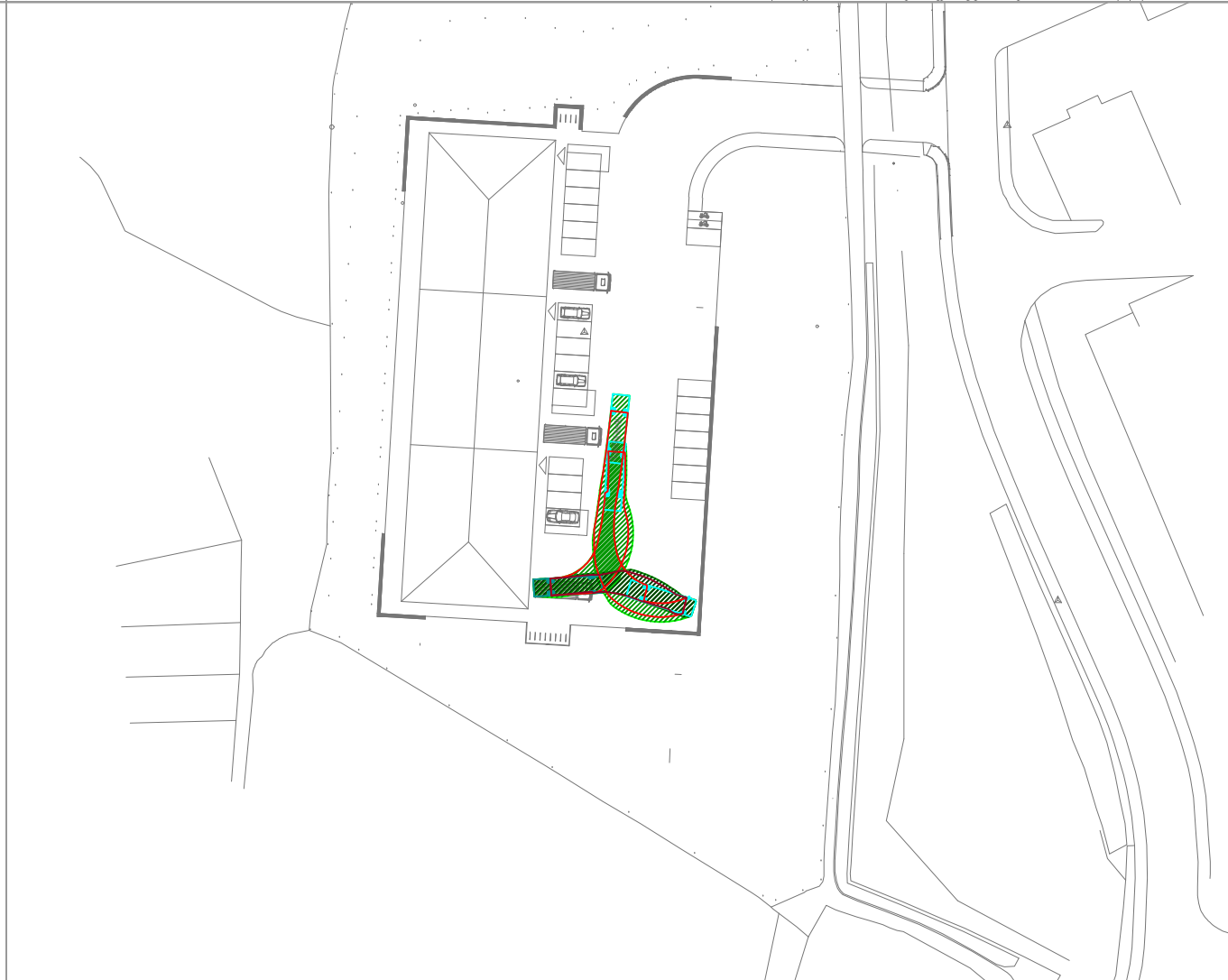
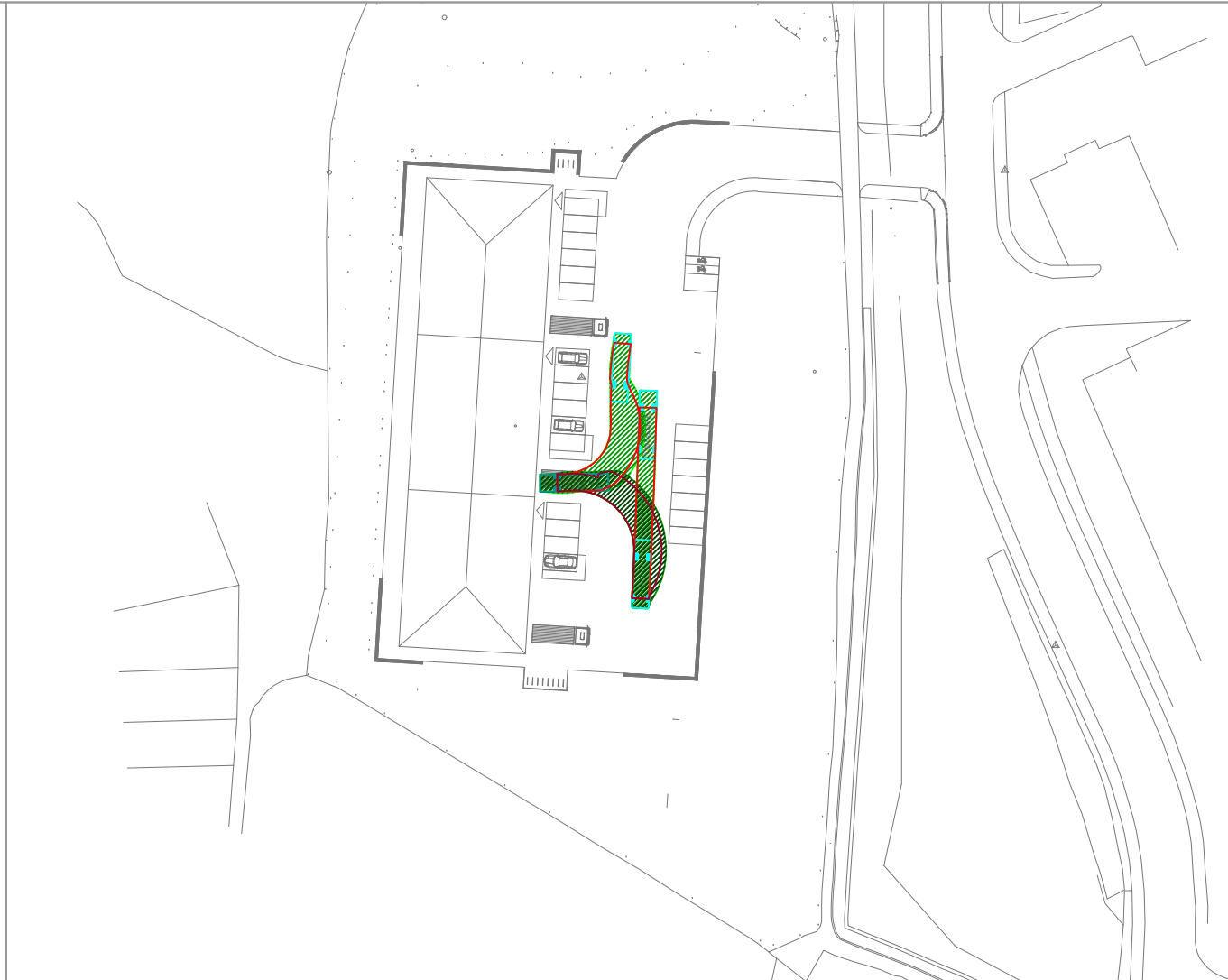
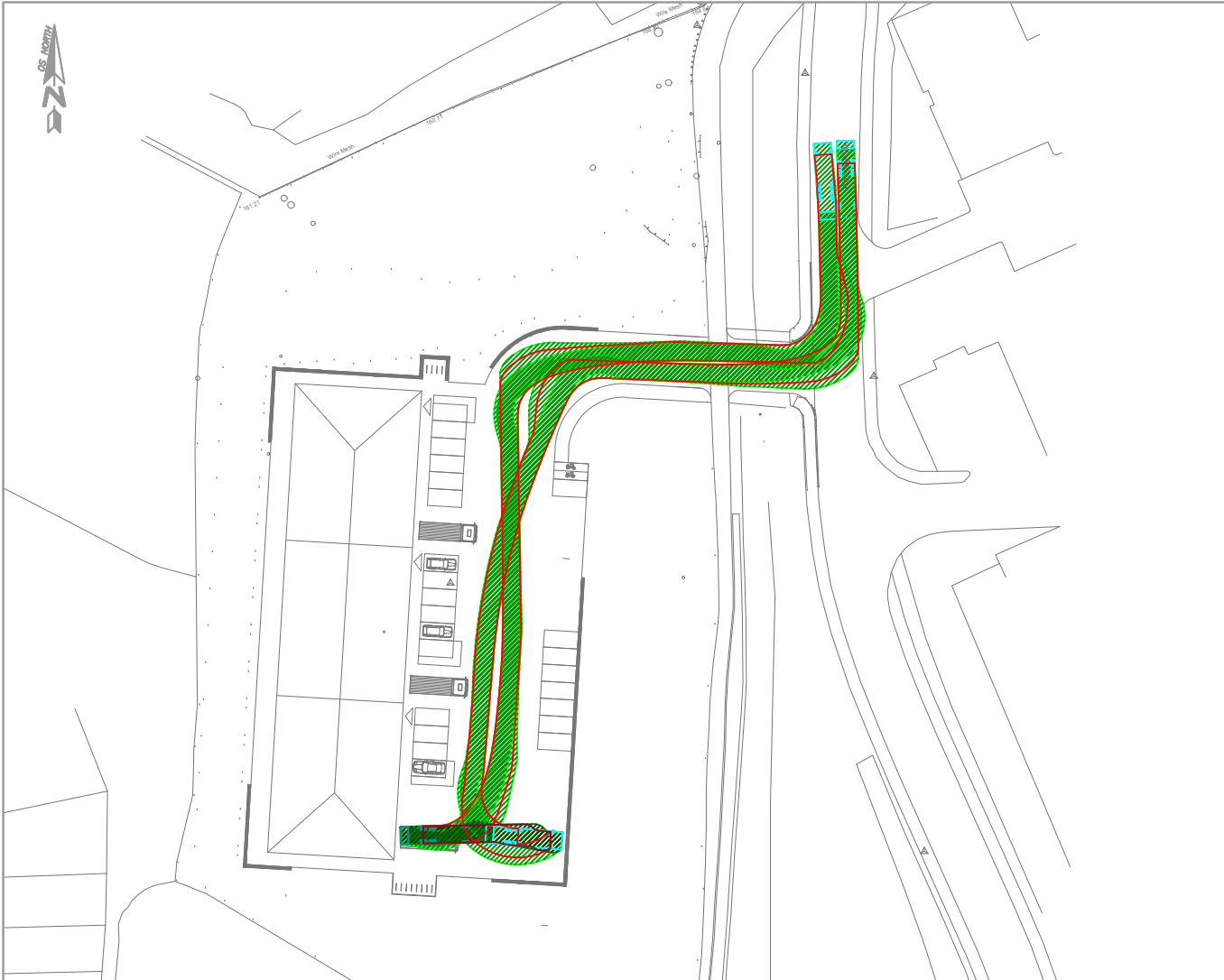
date: 02.03.22

drawn: lg

capricorn park  
blackwater road  
blackburn bb1 5qr  
t: 01254 297700  
e: design@cdpartnership.co.uk

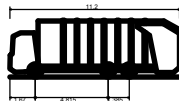
## APPENDIX B

### Swept Path Analysis

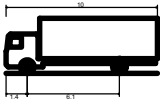


transport planning

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



Phoenix 2 Duo (P2-15W with Elite 6x4 chassis)  
Overall Length 11.200m  
Overall Width 2.530m  
Overall Body Height 3.751m  
Min Body Ground Clearance 0.304m  
Track Width 2.500m  
Lock to lock time 4.00s  
Kerb to Kerb Turning Radius 9.500m



FTA Design HG Rigid Vehicle (1998)  
Overall Length 10.000m  
Overall Width 2.500m  
Overall Body Height 3.845m  
Min Body Ground Clearance 0.440m  
Track Width 2.470m  
Lock to lock time 3.00s  
Kerb to Kerb Turning Radius 11.000m

- 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 |            |             |
|----------------|------------|-------------|
| -              | 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:  
preliminary site access  
drawing number:  
J32-7089-PS-001

## 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](http://www.tfgm.com)

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Operated by  
**Go North West**

# Additional information

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## 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](http://www.tfgm.com)

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## 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](http://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.

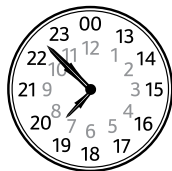
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## Using the 24 hour clock

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](mailto: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](http://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 | 1840 |
| Rochdale Road/Charlestown Road    | 0612 | 0642 | 0712 | 0742 | 0813  | until | 0943 | 0959 | 1014 | 1027 | 1042  | until | 1712 | 1727 | 1742 | 1757 | 1814 | 1837 | 1857 |
| Manchester, Shudehill Interchange | 0625 | 0655 | 0725 | 0755 | 0826  |       | 0956 | 1012 | 1027 | 1040 | 1055  |       | 1725 | 1740 | 1755 | 1810 | 1827 | 1850 | 1900 |

|                                   |      |      |      |      |       |      |
|-----------------------------------|------|------|------|------|-------|------|
| 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

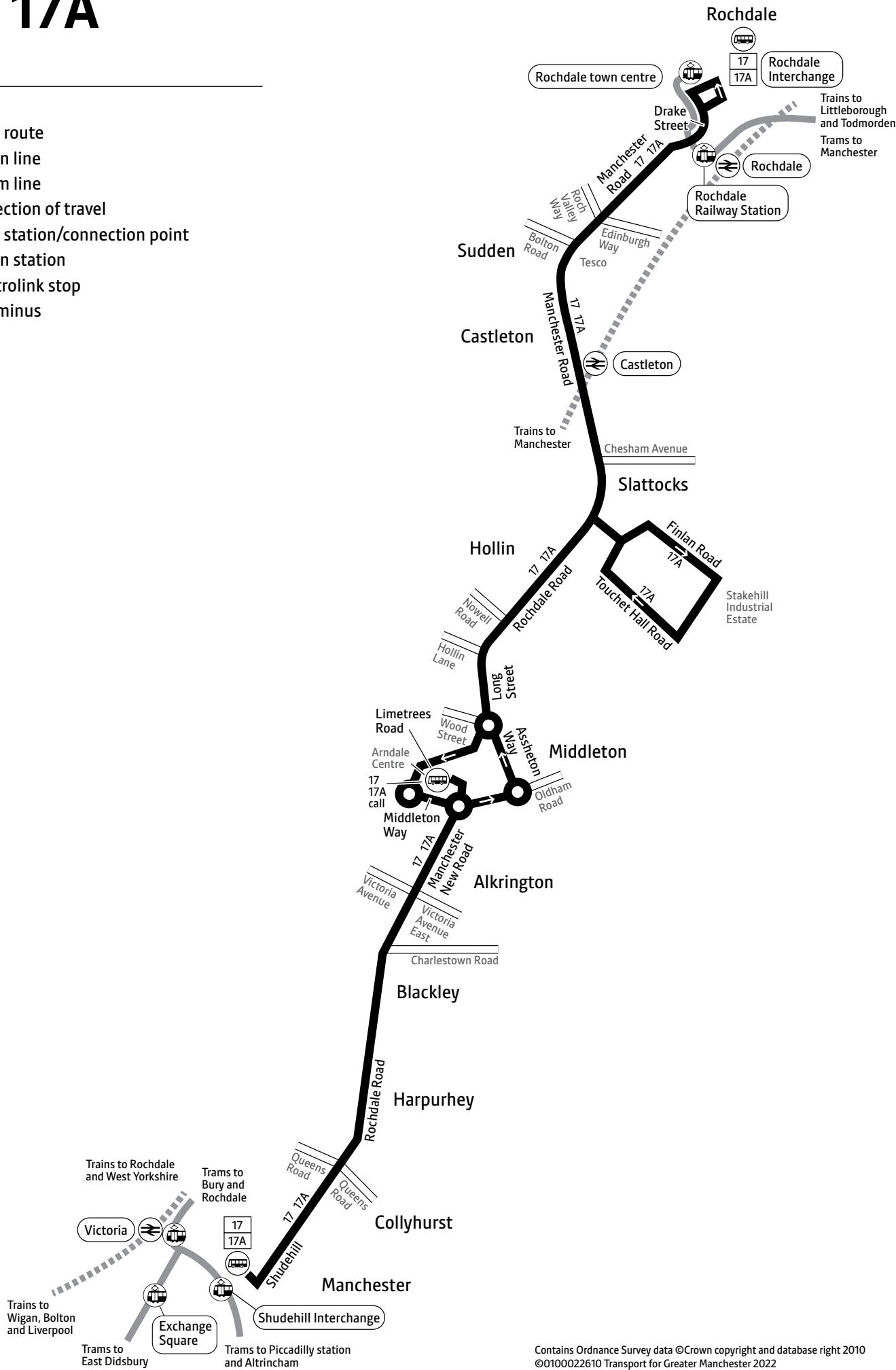
Bus station/connection point

Train station

Metrolink stop

17

Terminus



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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](http://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

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

## Saturdays

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

## Saturdays

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

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 |
|-----------|---------|

*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 |
|----|---------|

*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 |
|-----------------|---------|

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

|   |                                    |                          |                     |
|---|------------------------------------|--------------------------|---------------------|
| 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                 | Survey Type: MANUAL |
| 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                 | Survey Type: MANUAL |
| 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                 | Survey Type: MANUAL |
| 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                 | Survey Type: MANUAL |
| 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                 | Survey Type: MANUAL |
| 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                 | Survey Type: MANUAL |
| 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                 | Survey Type: MANUAL |
| 8 | DY-02-C-01                         | ENGINEERED PRODUCTS      | DERBY               |
|   | PONTEFRACT STREET                  |                          |                     |
|   | DERBY                              |                          |                     |
|   | Suburban Area (PPS6 Out of Centre) |                          |                     |
|   | Industrial Zone                    |                          |                     |
|   | Total Gross floor area:            | 2600 sqm                 |                     |
|   | Survey date: THURSDAY              | 25/06/15                 | Survey Type: MANUAL |

LIST OF SITES relevant to selection parameters (Cont.)

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

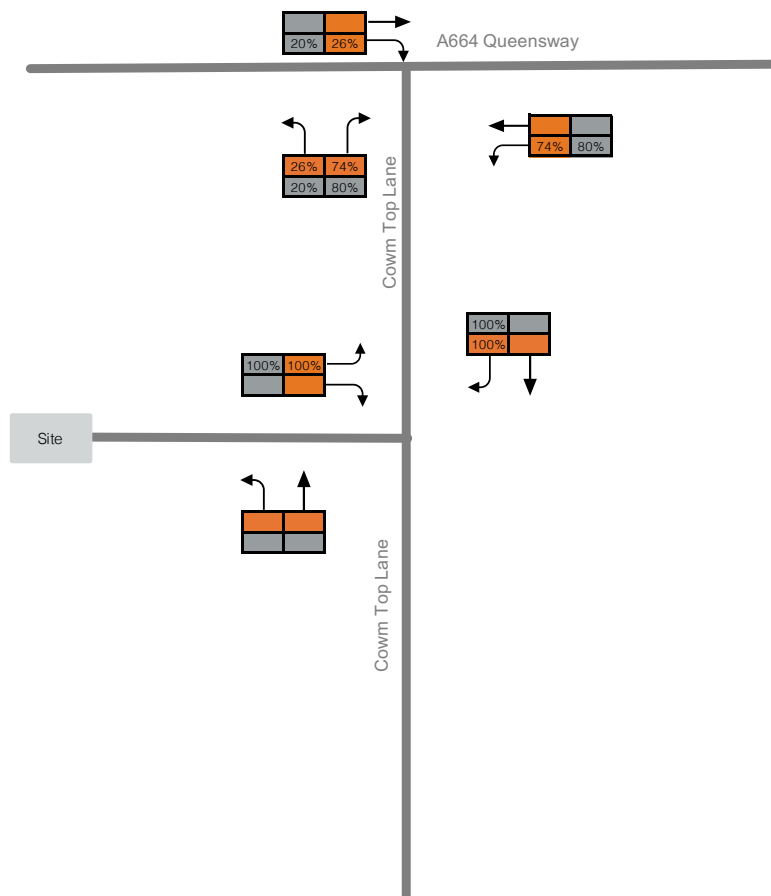
| Time Range    | ARRIVALS |          |           | DEPARTURES |          |           | TOTALS   |          |           |
|---------------|----------|----------|-----------|------------|----------|-----------|----------|----------|-----------|
|               | No. Days | Ave. GFA | Trip Rate | No. Days   | 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**

 AM  
 PM

Client  
Genesis Business Park,  
Rochdale  
J327089

Trip Distribution

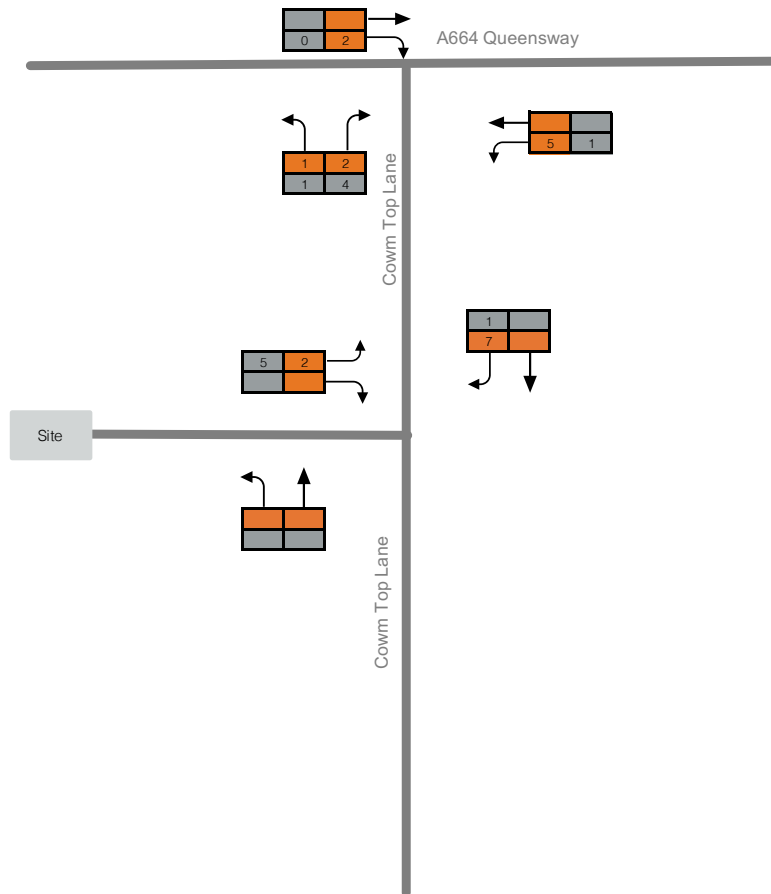
PREPARED  
LCW

CHECKED  
ME

mode  
transport planning



|    | A | D |
|----|---|---|
| AM | 7 | 2 |
| PM | 1 | 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

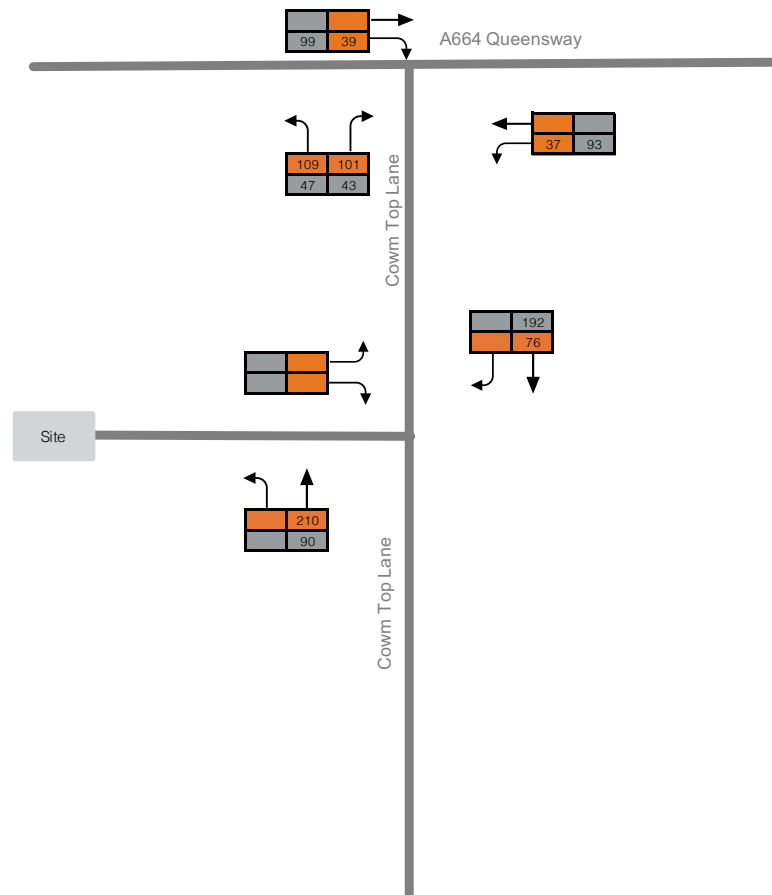
Development Trips

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

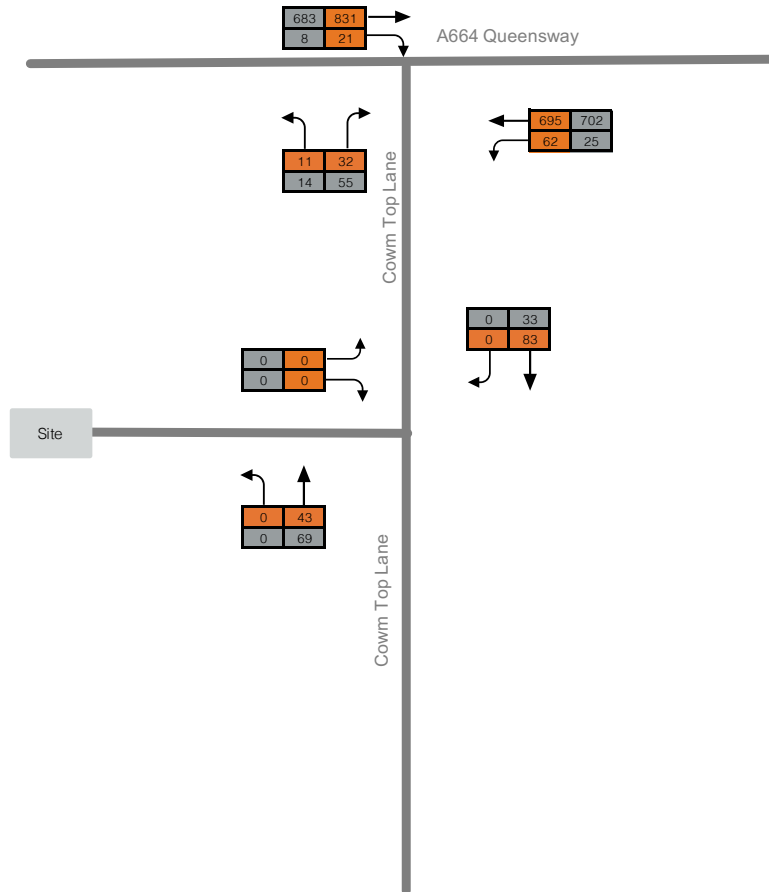
Committed Development

PREPARED 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

2026 Base

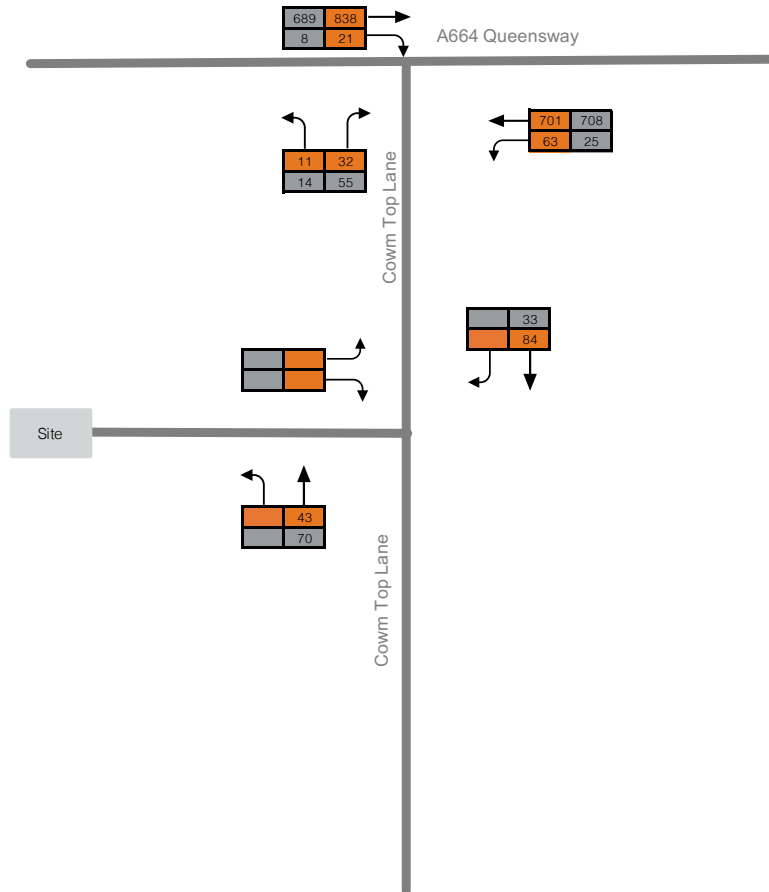
October 2022

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**

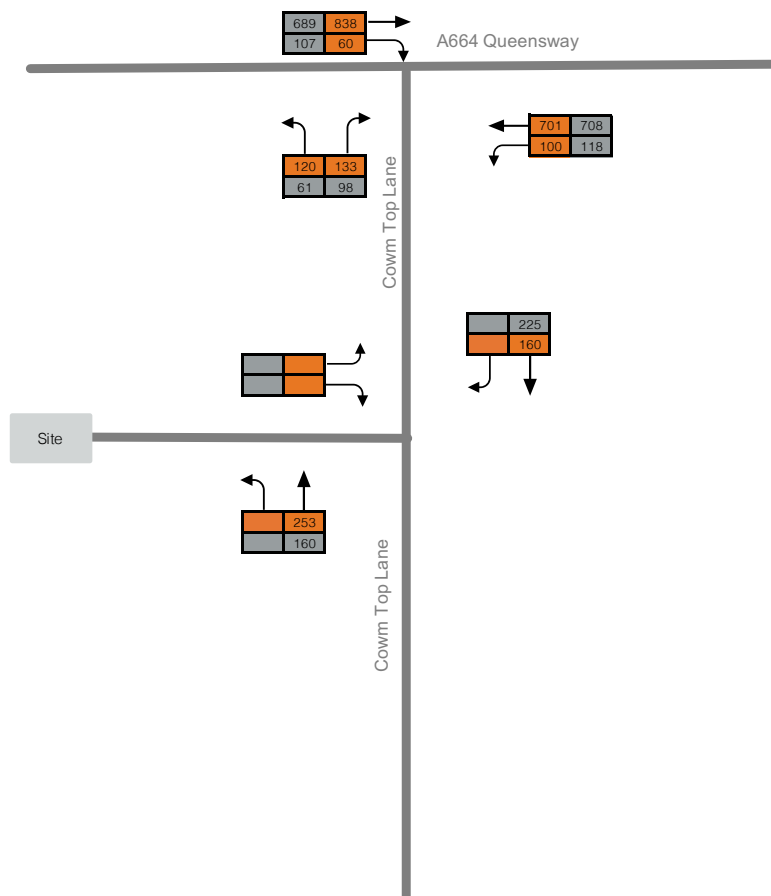
 AM  
 PM

Client  
Genesis Business Park,  
Rochdale  
J327089

2027 Base

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

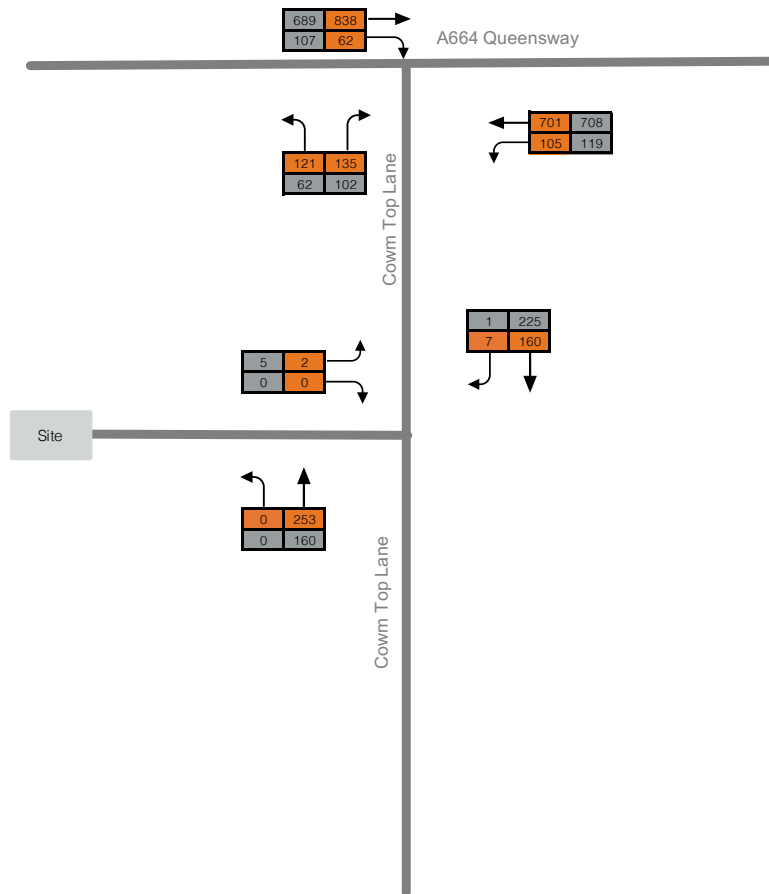
2027 Base + Committed  
Development

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

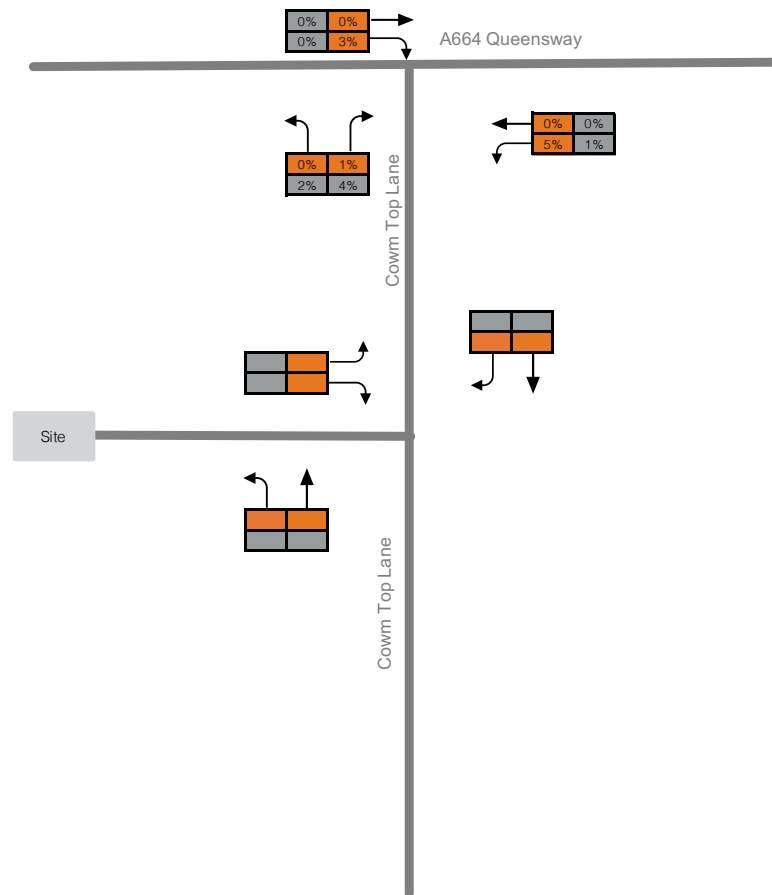
2027 Base + Committed  
Development + Development  
Trips

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  
LCW

CHECKED  
ME

mode

transport planning



keep up with mode:



Birmingham  
☎ 0121 794 8390

London  
☎ 020 7293 0217

Manchester  
☎ 0161 464 9495

Reading  
☎ 0118 206 2945