

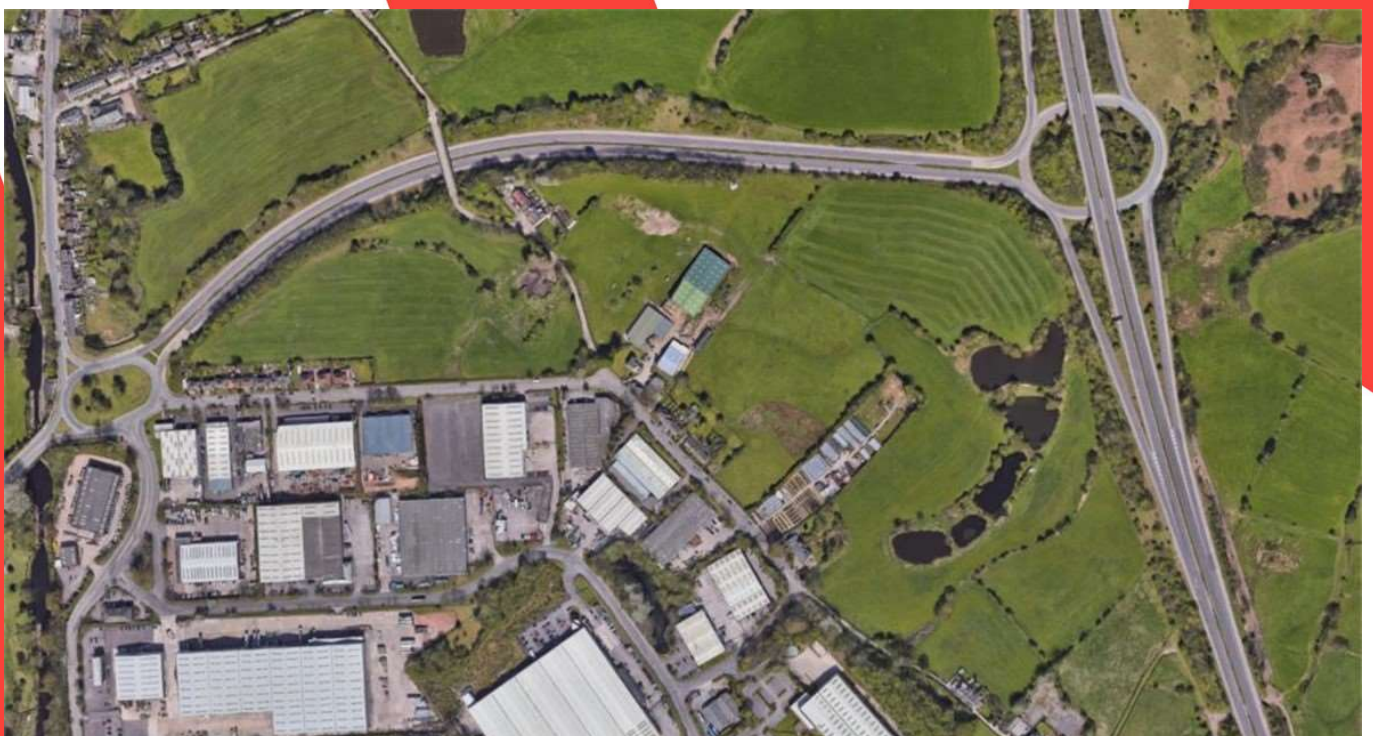


Trustees of J.P. Milne Will Trust **STAKEHILL INDUSTRIAL ESTATE**

Transport Assessment

March 2025

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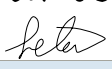
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1 INTRODUCTION

1.1 BACKGROUND

1.1.1. WSP have been appointed by Trustees of J.P. Milne Will Trust to provide transport planning support in relation to a planning application for a proposed mixed employment and residential development at the land north and east of Stakehill Industrial Estate in Rochdale, Greater Manchester. This Transport Assessment has been produced to provide transport planning support, alongside an associated Framework Travel Plan and Environmental Statement.

1.2 SITE LOCATION AND PROPOSED DEVELOPMENT

1.2.1. The site is situated north of the Stakehill Industrial site and borders the A627(M) Slattocks Link to the north, the A627(M) to the east and Bentley Avenue and Stakehill Lane to the south and west. The site is currently occupied by Stakehill Fisheries, Dickinson egg farm and a few residential properties, with the remainder of the site occupied by farmland and shrubbery. The location of the site has been identified in Figure 1-1.

Figure 1-1 - Site Location



1.2.2. This planning application is a continuation of the Greater Manchester Combined Authority Places for Everyone (former Greater Manchester Spatial Framework) and the production of the Locality Assessment for the Northern Gateway (Stakehill) (GM2) site. This was developed to assess the

existing transport infrastructure and identify the required multimodal transport interventions to deliver 1900 residential units and 154,219 sqft of Industrial/Warehousing land. In its original form, the southern portion of the GM2 site included 301 residential units and 154,219 sqft of Industrial/Warehousing land. This has now been updated as part of the new planning application to include B2/B8 land use (industrial, and storage and distribution) at an approximate 25/75% split and approximately 315 residential dwellings (providing a mix of 2, 3 and 4 bed houses).

1.3 REPORT STRUCTURE

1.3.1. The Transport Assessment is structured as follows:

- **Chapter 2** includes detailed information regarding existing conditions of the highway network and road safety;
- **Chapter 3** outlines the proposed development, including on site highway design and layout, access and car parking provision;
- **Chapter 4** consists of a review of all relevant policy and description of how the development complies with national, regional and local policies;
- **Chapter 5** outlines the active travel and sustainable transport provision in the local vicinity, in addition to the sustainable transport infrastructure that will be brought forward as part of the proposed development,
- **Chapter 6** outlines the trip generation and distribution based on the proposed development land use and quantum;
- **Chapter 7** details the traffic capacity assessment that has been undertaken to assess the traffic impact of the proposed development on the surrounding road network; and
- **Chapter 8** summarises the key points and conclusions of the transport assessment.

2 EXISTING CONDITIONS

2.1 EXISTING DEVELOPMENT

- 2.1.1. The site is situated north of the Stakehill Industrial site and borders the A627(M) Slattocks Link to the north, the A627(M) to the east and Bentley Avenue and Stakehill Lane to the south and west. The site is currently occupied by Stakehill Fisheries, Dickinson egg farm and various residential properties, with the remainder of the site occupied by farmland and shrubbery.
- 2.1.2. The site is located approximately 2km to the south of Castleton and approximately 4km to the south of Rochdale town centre. The site extends to approximately 30 hectares.

2.2 HIGHWAY NETWORK

- 2.2.1. A review of the existing highway network in the vicinity of the site has been conducted which details the characteristics and nature of the local highway. The following roads have been assessed in the vicinity of the site:

- A627(M);
- A627(M) Slattocks Link;
- Bentley Avenue;
- Stakehill Lane;
- Hough Lane; and
- Slattocks Roundabout.

A627(M)

- 2.2.2. The A627(M) is a two-way dual carriageway with an approximate width of 20m, extending in a north to south direction towards Rochdale and Oldham respectively. The A627(M) represents the eastern boundary of the site at approximately 650m in length. A hard shoulder is present on both sides of the carriageway at an approximate width of 3.5m and is adequately lit throughout. The A627(M) provides access to three key junctions in the vicinity of the site that provide connectivity to the wider highway network and local settlements. In respect to the site, these junctions are:

- A627(M)/M62 roundabout to the north;
- Slattocks Interchange to the northeast; and
- Chadderton Roundabout to the southeast.

A627(M) SLATTOCKS LINK

- 2.2.3. The A627(M) Slattocks Link is a two-lane dual carriageway with an approximate width of 18m and extends from the Slattocks Interchange in the northeast of the site to Slattocks Roundabout in the west. Throughout the extent of the Slattocks Link and present on both sides of the carriageway is a hard shoulder of an approximate width of 4.0m and is adequately lit throughout.
- 2.2.4. Slattocks Link provides connectivity between the A627(M) in the east and the A664 in the west, providing a direct link to settlements including Castleton, Castleton Moor and Stanycliffe.

BENTLEY AVENUE

- 2.2.5. Bentley Avenue is a single carriageway that extends from Slattocks Roundabout in the west and the Bentley Avenue/Stakehill Lane junction in the east. At an approximate width of 8.5m, Bentley Avenue

acts as the southwest perimeter of the proposed development and the northern boundary of the Stakehill Industrial Park. Footways are present on both sides of the carriageway at an approximate width of 2.3m, with lighting present on the south carriageway.

STAKEHILL LANE

- 2.2.6. Stakehill Lane is a single carriageway that is approximately 7.5m in width that extends from the Bentley Lane/Stakehill junction to the northeast and the Boarshaw Lane/Hough Lane junction in the south. Stakehill Lane runs in a northwest to southeast direction and forms the northeasterly border of the Stakehill Industrial Park, and the south-westerly border of the proposed development.
- 2.2.7. Between Bentley Avenue and Finlan Road, the carriageway is approximately 7.5m in width and can be characterised as a single carriageway, with footways of approximately 2.6m on both sides of the carriageway and adequate street lighting throughout. Double and single yellow lines are present throughout the extent of this section of Stakehill Lane to control on-street parking.
- 2.2.8. Between Finlan Road and the Boarshaw Lane/Hough Lane junction Stakehill Lane is approximately 4.0m in width throughout and can be characterised as a rural access track. Street lighting is present along the carriageway, although no footways are provided.

HOUGH LANE

- 2.2.9. Hough lane is a single carriageway rural access track of approximately 4.5m in width extending from the Boarshaw Lane/Stakehill Lane junction in the west and the Oozewood Road/Cinder Hill Lane junction to the east of the development site. Hough lane travels in a southwest to northeast direction from the west and continues under the A627(M), with no footways and no lighting throughout the extent of the carriageway.

SLATTOCKS ROUNDABOUT

- 2.2.10. Slattocks Roundabout is a lit five-lane roundabout situated on the western boundary of the development site. It provides connectivity to the A627(M) via the A627(M) Slattocks Link to the east, Middleton via the A644 to the south, and towards Rochdale via the A644 to the north. The Stakehill Industrial Estate is also accessible via Whitbrook Way.
- 2.2.11. Pedestrian facilities are provided on the outskirts of the roundabout, with pedestrian crossings with tactile paving and street lighting provided on all arms of the roundabout.

2.3 LOCAL AMENITIES

- 2.3.1. The site is well connected to local amenities given its approximate 20-minute cycle to Rochdale and Oldham and 15-minute cycle to Middleton. Amenities in the local vicinity include:
 - Manchester Golf Club;
 - Various Leisure facilities in nearby settlements, such as the gym at Middleton;
 - Castleton and Mills Hill Train station (10 and 11-minute cycle respectively);
 - Supermarkets including Tesco, Asda and Company Shop within the Stakehill industrial park;
 - Hopwood Hall College; and
 - Rochdale Canal Towpath.

2.4 ROAD SAFETY

- 2.4.1. An analysis of Personal Injury Accident (PIA) data has been carried out on the local highway network surrounding the site to establish any patterns in location or causation factors which may be exacerbated as a result of the proposed development.
- 2.4.2. PIA data for a five-year period has been obtained from Crashmap, up to and including December 2022. The following locations have been analysed under the PIA study area and can be seen in Figure 2-1 below:

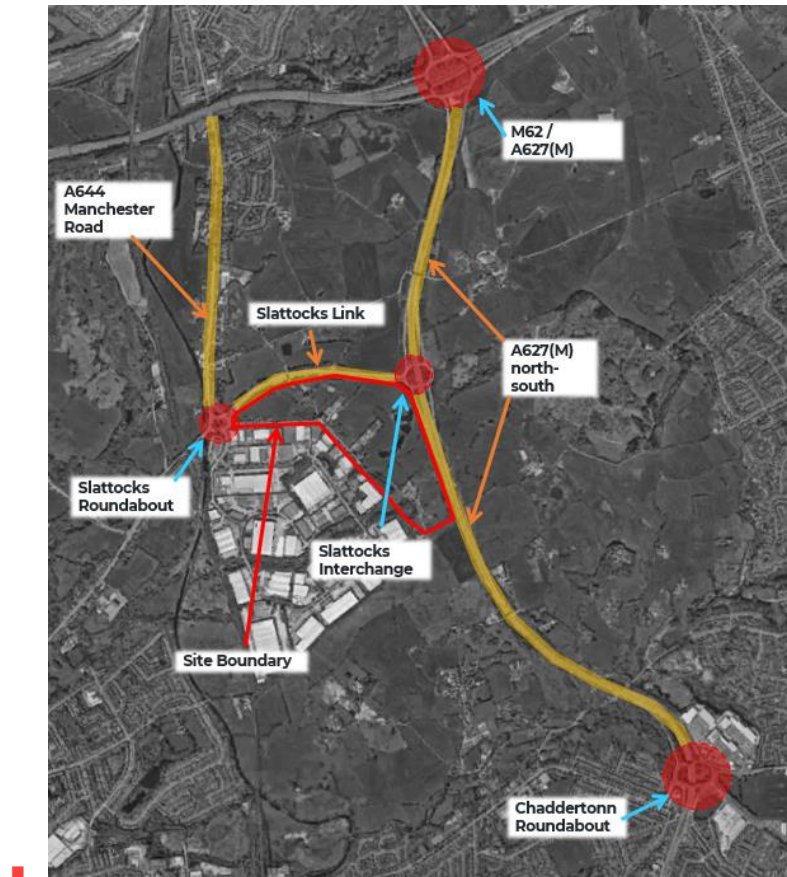
Junctions:

- Slattocks Interchange;
- Slattocks Roundabout;
- A627(M) / M62; and
- Chadderton Roundabout.

Links:

- A627(M);
- A627(M) Slattocks Link; and
- A644 Manchester Road.

Figure 2-1 - PIA Collision Assessment Locations



JUNCTION ANALYSIS

Slattocks Interchange

- 2.4.3. The PIA data showed that there were no collisions in the five-year period at the Slattocks Interchange.

Slattocks Roundabout

- 2.4.4. The PIA data at Slattocks Roundabout over the five-year study period is shown in Table 2-1.

Table 2-1 – Slattocks Roundabout – PIA Data Summary

	2018	2019	2020	2021	2022	Total
Slight	-	-	-	2	-	2
Serious	-	-	-	-	1	1
Fatal	-	-	1	-	-	1
Total	0	0	1	2	1	4

- 2.4.5. A total of four collisions were identified at Slattocks Roundabout over the five-year study period, with 50% of accidents classified as slight, 25% as serious and 25% as fatal. The year with the most collisions is 2021 which accounted for 50% of collisions.

A627(M) / M62 Junction

- 2.4.6. The PIA data at the A627(M) / M62 Junction over the five-year study period is shown in Table 2-2.

Table 2-2 – A627(M) / M62 Junction – PIA Data Summary

	2018	2019	2020	2021	2022	Total
Slight	-	1	1	5	2	9
Serious	-	-	-	1	-	1
Fatal	-	-	-	-	-	0
Total	0	1	1	6	2	10

- 2.4.7. A total of ten collisions were identified at the A627(M) / M62 junction over the five-year study period, with 90% of accidents classified as slight and one serious collision. The year with the most collisions is 2021, which accounted for 60% of collisions.

Chadderton Roundabout

- 2.4.8. The PIA data at Chadderton Roundabout over the five-year study period is shown in Table 2-3.

Table 2-3 – Chadderton Roundabout – PIA Data Summary

	2018	2019	2020	2021	2022	Total
Slight	4	4	2	1	6	17
Serious	-	-	1	-	-	1
Fatal	-	-	-	-	-	0
Total	4	4	3	1	6	18

- 2.4.9. A total of 18 collisions were identified at the Chadderton Roundabout over the five-year study period, with 94% of accidents classified as slight and one serious collision. This is an average of 3.6 collisions per year and can be considered low given its status as a major roundabout.

LINK ANALYSIS

A627(M)

- 2.4.10. The PIA data along the extent of the A627(M) in the vicinity of the site over the five-year study period is shown in Table 2-4.

Table 2-4 – A627(M) PIA Data Summary

	2018	2019	2020	2021	2022	Total
Slight	2	2	-	3	2	9
Serious	-	2	-	1	-	3
Fatal	-	-	-	-	-	0
Total	2	4	0	4	2	12

- 2.4.11. A total of 12 collisions were identified along the extent of the A627(M) over the five-year study period, with 75% of accidents classified as slight and 25% as serious. With an average annual collision rate of 2.4, it is evident that no off-site mitigation is required with respect to road safety.

A627(M) Slattocks Link

- 2.4.12. The PIA data showed that there were no collisions in the five-year period on the A627(M) Slattocks Link.

A644 Manchester Road

The PIA data along the extent of the A644 Manchester Road over the five-year study period is shown in Table 2-5.

Table 2-5 – A644 Manchester Road – PIA Data Summary

	2018	2019	2020	2021	2022	Total
Slight	2	-	-	2	1	5
Serious	-	-	1	-	1	2
Fatal	-	-	1	-	-	1
Total	2	0	2	2	2	8

2.4.13. A total of eight collisions were identified along the A644 Manchester Road over the five-year study period, with 62.5% of accidents classified as slight, two serious and one fatal collision.

SUMMARY

2.4.14. It is evident that across the extent of the PIA study area there are no significant patterns of locations of collisions, with an average of 6.4 collisions per year across the four junctions assessed and four collisions per year across the three links. It is therefore unlikely that the proposed development will exacerbate collision rates and that no off-site mitigation is required with respect to road safety across the proposed development.

3 PROPOSED DEVELOPMENT

3.1 PROPOSED DEVELOPMENT

3.1.1. The overall Site area extends to approximately 25.29 ha. The Proposed Development includes the development of B2/B8 land use (industrial, and storage and distribution) at an approximate 25/75% split and approximately 314 residential dwellings (providing a mix of 2, 3 and 4 bed houses). The development will include the following features:

- Significant employment floorspace including approximately 140,000sqft;
- New POS facilities and recreational areas;
- Internal distribution roads; and
- Associated engineering, and landscaping.

3.1.2. The Proposed Development will have a maximum height of 25m, with building heights not exceeding 25m across all five units. Access to the residential elements of the proposed development site will be provided off Slattocks Roundabout via Bentley Avenue to the north and a new access road to the north of Stakehill Nurseries, while access to the industrial units will be provided via a new access point off Finlan Road and Stakehill Lane to the south.

Figure 3-1 - Proposed Development



3.2 SITE LOCATION

3.2.1. The site extends to approximately 25.29ha and forms part of the draft Greater Manchester Places for Everyone (PfE) Policy JP Allocation 2 Stakehill (Policy JPA2).

- 3.2.2. The site is strategically well located to deliver employment-led mixed-use development. The site comprises a large wedge of land located immediately north and east of Stakehill Industrial Estate, bound to the north by the A627(M) spur and to the west by the A627(M).
- 3.2.3. Accessed via Slattocks Roundabout immediately east of the site, the A627(M) leads northbound into the centre of Rochdale and to the M62. The M62 provides direct links to key towns and cities in the north of England, including eastbound to Huddersfield, Leeds and Hull, and westbound to Warrington, St. Helens and Liverpool (via a short section on the M60 Manchester Ring Road).
- 3.2.4. On a more local level, the site is sustainably located, with the services and facilities in Slattocks within easy reach of the site by walking and cycling and also a range of public transport options, including Bus Route 17 which provides direct connections between Rochdale – Castleton – Middleton – Blackley – Collyhurst – Manchester.
- 3.2.5. The public road within the site will be accessible with the provision of dropped kerbs and tactile paving at the pedestrian crossing, subject to the adopted masterplan.

4 POLICY REVIEW

4.1 INTRODUCTION

- 4.1.1. This chapter provides a summary of relevant national, regional and local transport policies and provides a brief analysis of how the proposed development will contribute towards their aims and objectives.

4.2 NATIONAL POLICY

NATIONAL PLANNING POLICY FRAMEWORK

- 4.2.1. The latest version of the National Planning Policy Framework (NPPF) was published in December 2024. The framework forms a singular national planning guidance for local planning authorities and decision makers, both in drawing up plans and as a material consideration in determining applications.
- 4.2.2. The Framework identifies that the purpose of the planning system is to contribute towards sustainable development. Sustainable development is defined in terms of economic, social and environmental sustainability, each of which is mutually dependent.
- 4.2.3. In relation to transport, the NPPF outlines that new development should contribute towards sustainability and health objectives by promoting development in sustainable locations. The transport system needs to be balanced in favour of sustainable transport modes for all users, giving users a real choice about how they travel. Smarter technology can also be used to reduce the need to travel.
- 4.2.4. Paragraph 115 of the NPPF states that *“In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:*
- a) sustainable transport modes are prioritised taking account of the vision for the site, the type of development and its location;
 - b) safe and suitable access to the site can be achieved for all users;
 - c) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code⁴⁸; and
 - d) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree through a vision-led approach.
- 4.2.5. Development will be prioritised in locations which reduce greenhouse gas emissions and reduce congestion by facilitating the use of sustainable modes of transport. Developments should be located in areas where the need to travel can be minimised and the use of sustainable transport modes can be maximised.
- 4.2.6. The Framework also places significant weight to the endorsement of sites which provide priority to Non-Motorised Users (NMUs) which includes pedestrians and cyclists. Such users should be provided access to high quality public transport facilities as well as sites that create a safe and secure layout which minimises conflicts between traffic and cyclists or pedestrians.
- 4.2.7. Paragraph 110 of the NPPF states that:

“...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.”

4.2.8. As outlined in the following chapter, the proposed development is in a sustainable location that is accessible by a variety of travel modes, as well as having a significant local population within a short walking distance of the site. It is therefore considered that the proposed development is aligned to the NPPF.

4.2.9. Additionally, paragraph 116 of the NPPF states:

“Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network, following mitigation, would be severe, taking into account all reasonable future scenarios.”

4.2.10. The updated NPPF also places a greater emphasis on proposed developments that create healthy places. Paragraph 129 of the NPPF states:

“Planning policies and decisions should support development that makes efficient use of land, taking into account the importance of securing well-designed, attractive and healthy places.”

PLANNING POLICY GUIDANCE

4.2.11. The Government’s Planning Practice Guidance (PPG) supplements the NPPF. The PPG clarifies the over-arching principles of Travel Plans, Transport Assessments and Transport Statements. The guidance on Transport Assessments and Statements re-iterates the circumstances in which either document would usually be required and outlines the process for determining the scope of the assessment. The PPG has been considered in the production of the TA.

4.3 REGIONAL POLICY

GREATER MANCHESTER TRANSPORT STRATEGY 2040

4.3.1. In February 2017, Transport for Greater Manchester (TfGM) published the Greater Manchester Transport Strategy 2040 which sets out the vision for Greater Manchester and provides a plan to *“establish a fully integrated, high-capacity transport system across Greater Manchester”*.

4.3.2. The four key elements of TfGM’s transport vision are:

- Supporting sustainable economic growth;
- Protecting the environment;
- Improving quality of life for all; and
- Developing an innovative city-region.

4.3.3. For the vision to become reality, the transport system must *“connect people to opportunities and information, entrepreneurs with ideas and capital, and employers with talent and skills.”* It also must help create better places: supporting new development and regeneration, reducing the dominance of cars and goods vehicles, and improving the environment.

4.3.4. The transport strategy sets out seven reinforcing principles to meet the needs of residents, businesses and visitors. These are: integrated; inclusive; healthy; environmentally responsible; reliable; safe and secure; and well maintained and resilient.

4.3.5. As such, *“TfGM will continue to work with planning authorities and developers to better integrate transport and new development in accordance with the principles of:*

- Reducing the need to travel by car, and the distance travelled;
- Maximising accessibility by sustainable modes;
- Making the best use of existing infrastructure, particularly through increasing the density of development close to public transport nodes;
- Maximising opportunities to provide additional public transport; and,
- Designing to encourage active travel.”

PLACES FOR EVERYONE

- 4.3.6. Places for Everyone (PfE) is a long-term plan of nine Greater Manchester districts (Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Tameside, Trafford, and Wigan) for jobs, new homes, and sustainable growth. It has been published by the Greater Manchester Combined Authority (GMCA) on behalf of the nine districts.
- 4.3.7. The plan is a joint development plan of the nine districts which will determine the kind of development that takes place in their boroughs, maximising the use of brownfield land and urban spaces while protecting Green Belt land from the risk of unplanned development.
- 4.3.8. PfE was subject to an independent examination by inspectors appointed by the Secretary of State. This examination included public hearing sessions between November 2022 and July 2023.
- 4.3.9. With respect to site specific policies, the Site forms part of an allocation for mixed-use development under Policy JPA2 Stakehill, as denoted on the Policies Map which accompanies Places for Everyone. Following the inspectors’ report that considered PfE to be sound and legally compliant, Rochdale Borough Council adopted PfE with effect from 21st March 2024. Including the proposed development at Stakehill, the PfE aims to create approximately 10,500 new homes and 685,000 square metres of new employment across the borough of Rochdale.
- 4.3.10. As set out in Policy JPA2 Stakehill, this aims to create a sustainable high-quality extension to the urban area and accommodate around 150,000 sqm of employment floorspace and around 301 residential dwellings to support new jobs within the North-East Growth Corridor of Greater Manchester. The scale of residential development on the northern part of the allocation (the application site) provides an opportunity to adopt a ‘garden village’ approach to create a locally distinctive residential offer across both the northern and southern allocation areas.

4.4 LOCAL POLICY

ROCHDALE ADOPTED CORE STRATEGY

- 4.4.1. The Rochdale Adopted Core Strategy was adopted in October 2016 and sets out the long-term spatial strategy for future development of Rochdale Borough until 2028.
- 4.4.2. In terms of accessibility, the main challenges are highlighted as follows:
- Ensuring transport improvements are co-ordinated with, and support, future development;
 - Solving congestion at peak times across the borough;
 - Improving transport links to the city centre for employment and leisure;
 - Improving accessibility to jobs in the borough and elsewhere in Greater Manchester; and,
 - Improving public transport and other forms sustainable transport to improve air quality along the M62 and A58 road corridors and to reduce emissions.

4.4.3. Chapter 11 of the Core Strategy states that *“to improve accessibility and enhance sustainable travel, our policies seek to:*

- Deliver transport improvements at a strategic, borough-wide, and local level to support development proposals;
- Ensure that development is in the most appropriate and accessible locations;
- Minimise trips, especially single occupancy car journeys, and trip length;
- Promote wider travel choice and increase trips made by sustainable forms of travel, including public transport, cycling and walking;
- Support measures that enhance safety and access for people with impaired mobility, protect traffic-sensitive town centres and residential communities; and,
- Reduce emissions from traffic (particularly NO_x gases, PM₁₀ particulates and CO₂ levels) contributing to Greater Manchester Local Transport Plan (GMLTP) and national targets by encouraging more sustainable travel choices and forms of travel, more active and healthier travel behaviour and take advantage of technological innovations.”

4.4.4. As a result, Policy T2 advocates that *“[RBC] will improve accessibility by locating development where good access to public transport is available or can be provided, backed by measures to reduce the need for travel and effective provision for cyclists, pedestrians and people with impaired mobility. Development will be appropriately located to minimise the need to travel by car and the number and length of car trips made to access local amenities.”*

4.4.5. Finally, Policy C2 also states that RBC will encourage the delivery of new housing at the Castleton corridor / Crown Business Park.

4.5 SUMMARY

4.5.1. The transport policies set out above follow similar themes and promote common aims in the need of development that is accessible by active and sustainable modes of travel. These are to provide sustainable development with good access to encourage non-car modes of transport, to ensure that the highways impact of new developments is acceptable or mitigated against and to promote good site design with appropriate parking levels.

4.5.2. Chapter 5 demonstrates that the proposed development is well located in relation to sustainable transport facilities, ensuring the development is accessible by non-car modes of transport.

4.5.3. The above analysis of relevant national, regional, and local transport policies confirms that the proposed development is therefore compliant with the aspirations of relevant transport planning policies and can specifically help contribute to their objectives.

5 ACTIVE TRAVEL AND SUSTAINABLE TRANSPORT STRATEGY

5.1 INTRODUCTION

- 5.1.1. Central and Local Government objectives have been set out in Chapter 4 and aim to ensure that new developments are designed to support sustainable development, where the need to travel is minimised and the use of alternative modes of travel to the private car can be maximised.
- 5.1.2. It is therefore appropriate to provide safe and convenient access from the Proposed Development for pedestrians, cyclists, and public transport users to provide a choice of sustainable transport for all users of the Site. This will reduce the need to travel to the Proposed Development by private vehicle.
- 5.1.3. The following section outlines the accessibility of the Site via sustainable modes including walking, cycling and public transport.

5.2 WALKING AND CYCLING PROVISION

WALKING

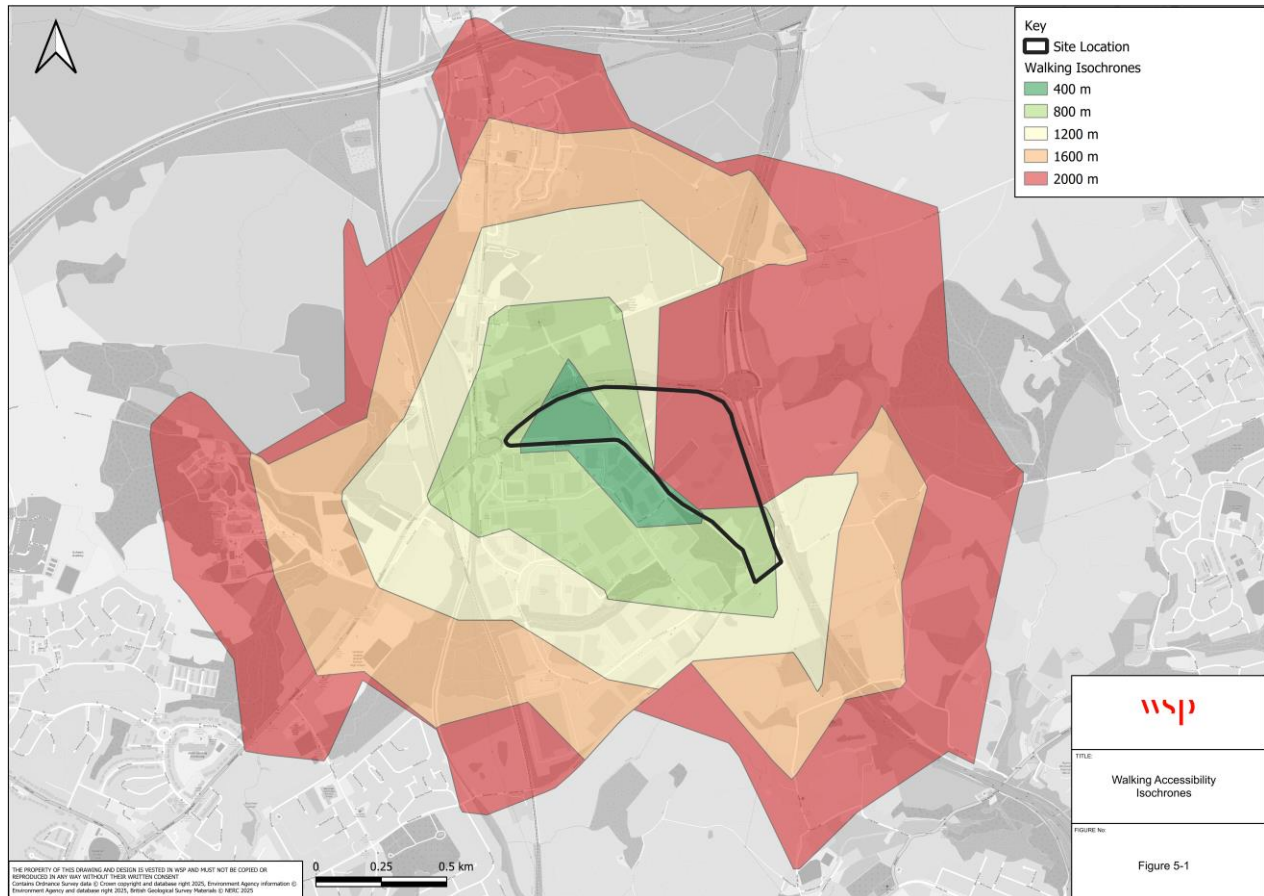
- 5.2.1. The Chartered Institution of Highways and Transportation (CIHT) published 'Guidelines for Providing for Journeys on Foot,' which sets out suggested maximum walking distances to/from new developments for commuting and other journeys and can be seen below in Table 5-1.

Table 5-1 - Suggested Acceptable Walking Distance – CIHT 'Guidelines for Journeys on Foot'

	Trip Purpose	
	Commuting/School Sight-seeing (m)	Elsewhere (m)
Desirable	500	400
Acceptable	1000	800
Preferred Maximum	2000	1200

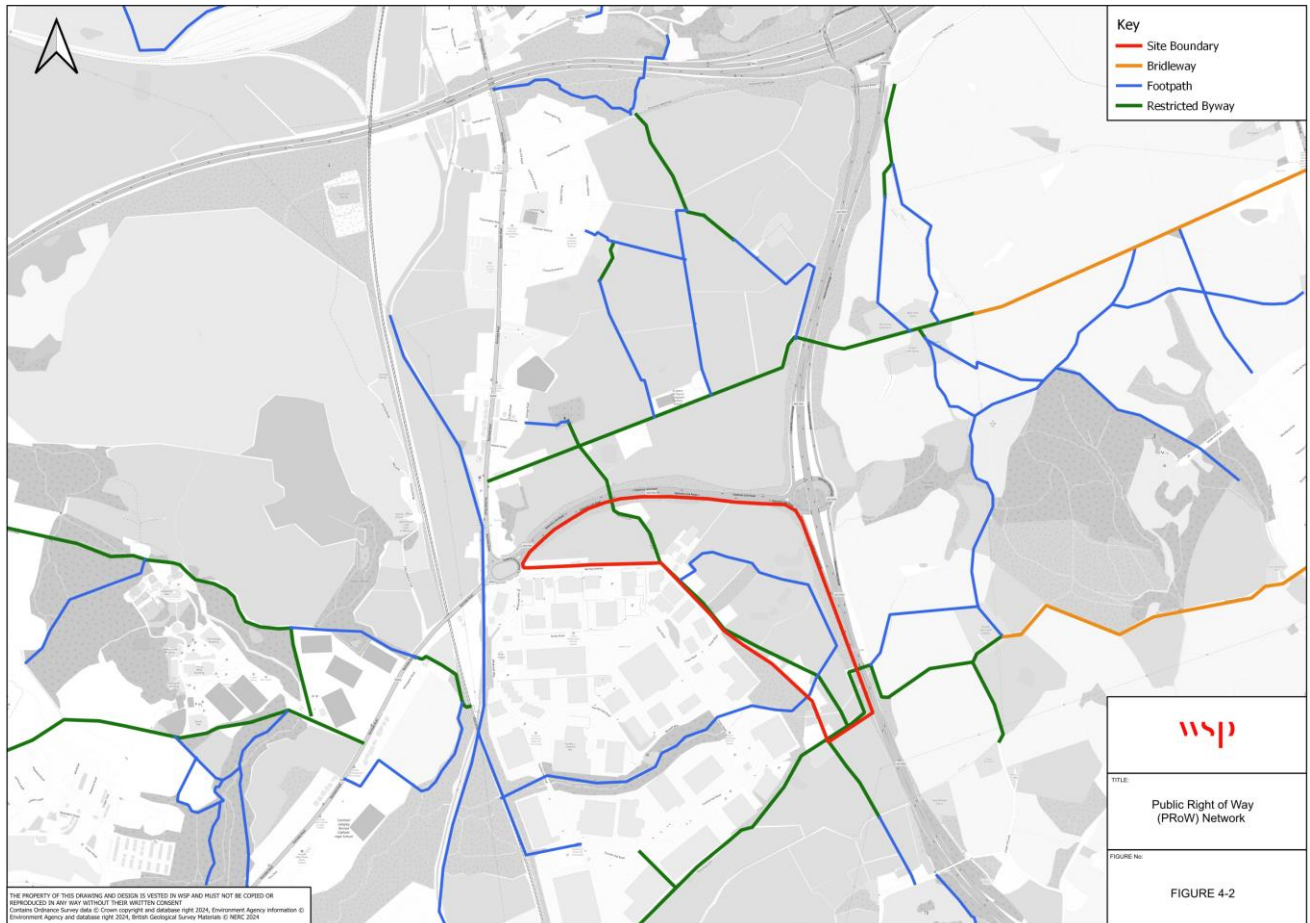
- 5.2.2. For trip purposes for commuting, walking distances of 500m are considered desirable, 1,000m are considered acceptable and a preferred maximum of 2,000 is suggested.
- 5.2.3. Figure 5-1 demonstrates walking accessibility from the Proposed Development and is measured through 400 metre (five-minute) intervals. The walking speed has been based on guidance given in Paragraph 3.30 in the IHT's publication Guidelines for Providing Journeys on Foot, which *states "an average walking speed of 1.4m/s can be assumed."* A copy of the walking isochrones plan is provided in Appendix B.

Figure 5-1 - Walking Accessibility Isochrones



- 5.2.4. The extent of the walking distance isochrones shown in Figure 5-1 show that the Site is in a highly accessible location with locations within a 2000m of the Site including the Castleton, Royton, Middleton and Balderstone.
- 5.2.5. Key sustainable transport facilities within a short walking distance to the Site that are likely to facilitate travel to the site by sustainable modes of travel include:
- Bus stops on Rochdale Road and within the Stakehill Industrial Estate; and
 - Right of Way Footpath No.23 (National Cycle Network Route 66) along the Rochdale Canal that provides connectivity to settlements to the north and south of Slattocks including Middleton and Rochdale.
- 5.2.6. It is evident that the Site lends itself to multi-modal travel with various sustainable transport facilities nearby that are within an appropriate walking distance of the Site.
- 5.2.7. As an undeveloped site pedestrian provision is currently provided by Public Right of Way (PRoW) footpaths and restricted byways with the provision of dropped kerbs and tactile paving at pedestrian crossing, which ensure accessibility and safety for all users. Figure 5-2 below highlights the existing PRoWs which run through the proposed development site, which are to be enhanced as part of the proposed development.

Figure 5-2 - Public Right of Way (PRoW) Network



- 5.2.8. Key Public Rights of Way in the vicinity of the site boundary have been identified below, with the naming convention taken from MappingGM. These include:
- Rupp no.8, 8a and 131 which extend from Rochdale Road to the northwest and pass through the site, providing connectivity to Oldham in the south;
 - Footpath no.16, which branches off Rupp no.131 and provides connectivity to Footpath no.15 and Tandle Hill Park in the east under the A627(M);
 - Footpath no.20, which provides connectivity across the Stakehill Industrial Estate from the west to Rupp no.131; and
 - Rupp no.130 on Thornham Lane providing connectivity from Rochdale Road in the west to Thornham Fold in the east.
- 5.2.9. There are proposed diverted Public Rights of Way in the draft Design Code Document, it provides connectivity between the proposed development and the existing restricted byway as shown in Figure 5-3 below. Stakehill Lane at the northern end remains to be a low traffic street that provides pedestrian and cycle linkage in the area.

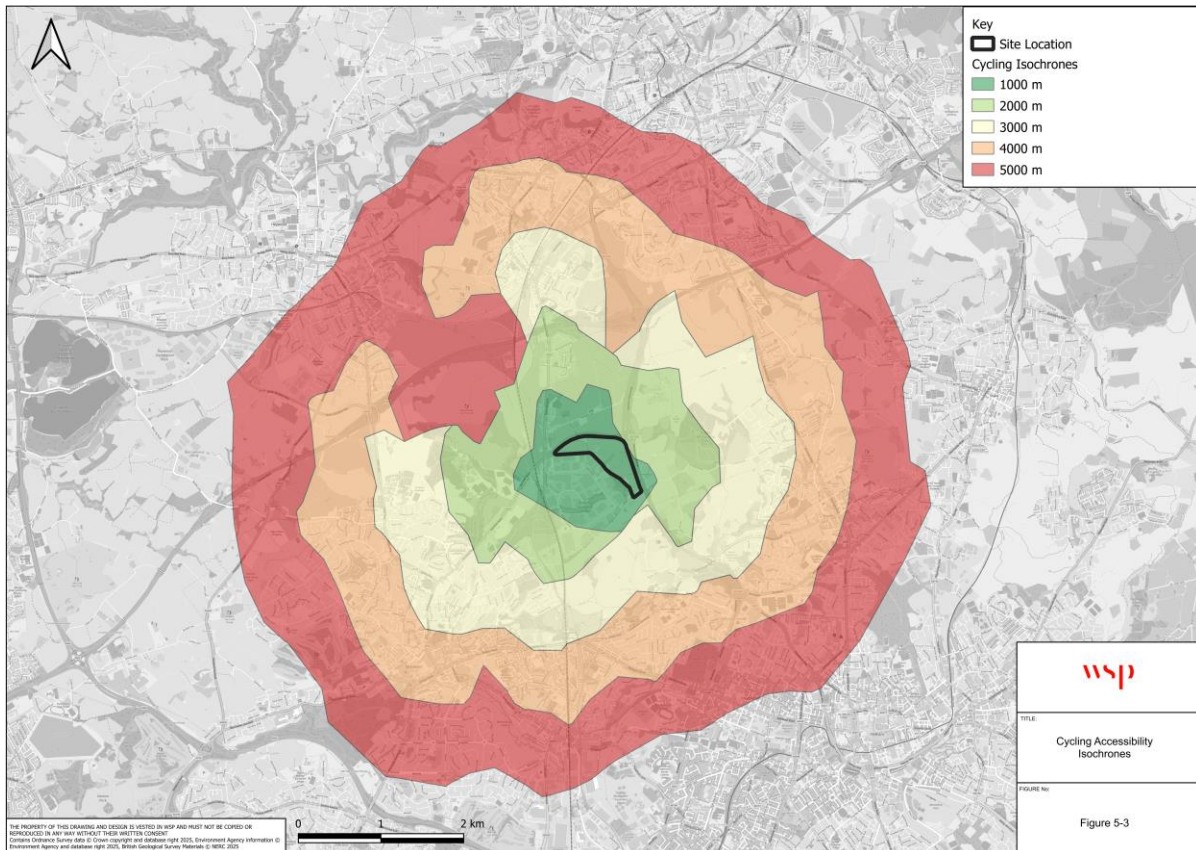
Figure 5-3 - Proposed diverted Public Rights of Way



CYCLING

- 5.2.10. Cycling is also a sustainable and healthy mode of transport that can replace short to medium journeys made by private vehicle or form part of a longer multi-modal journey, whilst helping to reduce local emissions and obesity (amongst other wider health benefits).
- 5.2.11. Figure 5-4 demonstrates cycling accessibility from the Proposed Development based on a maximum of 5km in five-minute intervals. A copy of the cycle isochrones plan is provided in Appendix B.

Figure 5-4 - Cycling Accessibility Isochrones



5.2.12. Figure 5-4 indicates that the site provides key connectivity to local neighbourhoods within the vicinity of the site including:

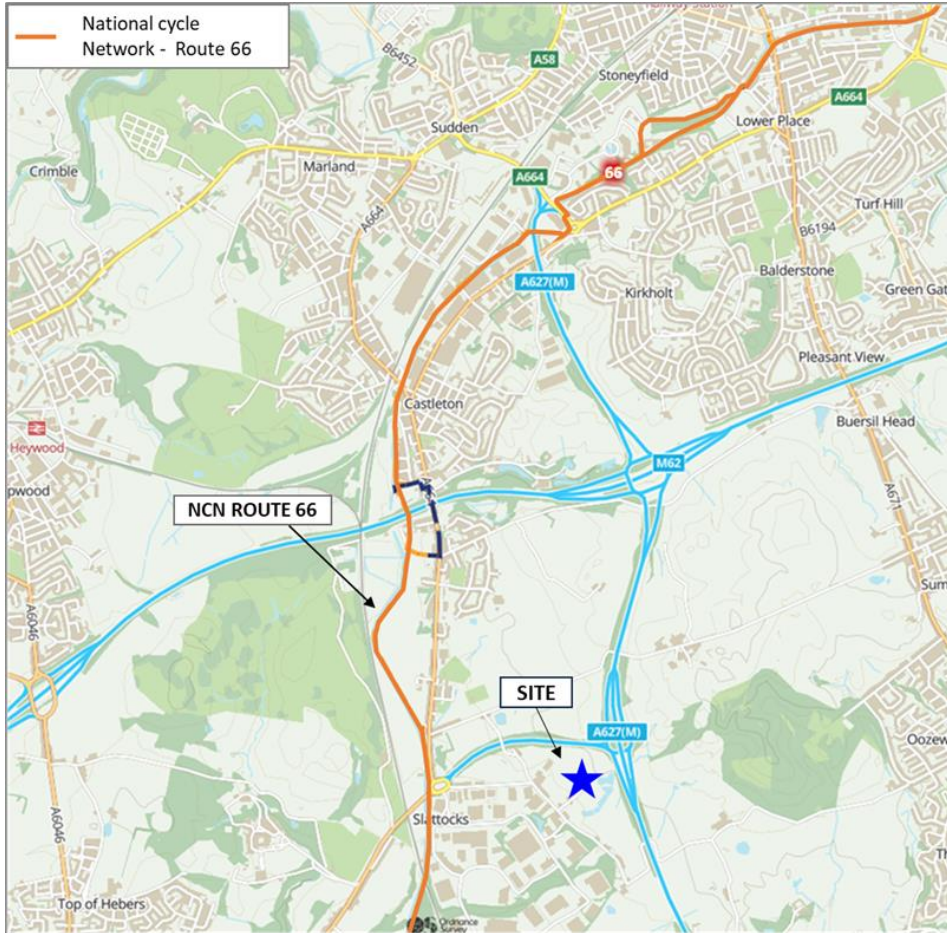
- Neighbourhoods less than a 10-minute cycle journey from the site such as Stanycliff and Royton;
- Neighbourhoods between a 10-15-minute cycle journey including Rochdale, Hopwood, Castleton, Chadderton and Middleton; and
- Transport networks in the vicinity of the site including Castleton Railway station, Mills Hill Railway station and bus stops on Rochdale Road.

LOCAL CYCLING FACILITIES

5.2.13. National Cycle Network (NCN) route 66 runs in a north to south direction following the Rochdale Canal which runs approximately 250m east of the western site boundary. NCN route 66 can be accessed to the northwest via Rochdale Road.

5.2.14. NCN route 66 runs from Greater Manchester to Yorkshire in a north to south direction and runs through Rochdale and Littleborough to the north and Middleton to the south. The route is made up of a mixture of on-road and off-road cycling trails, with the section between Middleton and Rochdale, the most useful to those accessing the route from the site, is almost entirely off-road. Figure 5-5 below shows NCN route 66 in relation to the development site.

Figure 5-5 - National Cycle Network



5.3 PUBLIC TRANSPORT

- 5.3.1. The location of the Site is conducive to public transport accessibility for both bus and rail as demonstrated throughout this section.

BUS¹

- 5.3.2. To demonstrate the Site's accessibility by public transport, an audit has been undertaken of the existing bus services in the local area.
- 5.3.3. A series of bus services run within the vicinity of the site with bus stops on A664 Rochdale Road to the west of the site at regular intervals. The nearest bus stops are the Slattocks and Thornham Lane stop, both of which are located to the west of the proposed primary site access.
- 5.3.4. Both the Slattocks and Thornham Lane bus stops are served by the 17 and 17A, while the 434 operates through Rochdale Road and serves the Stakehill Industrial Park via Finlan Road. More details on the bus services currently from these stops can be found in Table 5-2.

¹ Bus timetables were retrieved in January 2025. Service routes and frequencies may change in the future.

Table 5-2 – Bus Services

Route No.	Operator	Route	Weekday	Saturday	Sunday
17/17A	Bee Network	Rochdale - Manchester	6 per hour	6 per hour	4 per hour
		Manchester - Rochdale	6 per hour	6 per hour	4 per hour
434	Bee Network	Middleton - Rochdale	1 per hour	1 per hour	1 per hour
		Rochdale - Middleton	1 per hour	1 per hour	1 per hour

5.3.5. As can be seen, services are relatively frequent with six buses per hour between Rochdale and Manchester and one bus per hour between Middleton and Rochdale. In addition, there are regular services on Saturday and a Sunday service to Manchester and Middleton. The bus services provide a sustainable transport and reasonable choice for people travelling to and from work at the proposed site.

RAIL²

5.3.6. Although no rail stations directly serve the site, the location of nearby stations allows for the potential of multimodal journeys to and from the site.

5.3.7. Castleton Rail Station is the closest railway station to the site, which is located in Castleton, approximately 2.5 km to the north of the proposed site. From the proposed development, the station can be accessed via an approximate 40-minute walk, 10-minute cycle, or 6-minute drive.

5.3.8. The rail services at Castleton Rail Station have been identified in Table 5-3 below.

Table 5-3 – Castleton Rail Station Destinations

Destination	Frequency	Provider
Leeds	1 per day	Northern
Clitheroe via Manchester Victoria	1 per hour	Northern
Rochdale	2 per hour	Northern
Blackburn via Manchester Victoria	1 per hour	Northern

² Rail timetables were retrieved in January 2025. Service routes and frequencies may change in the future.

- 5.3.9. As seen in Table 5-3 there are regular rail services local destinations such as Clitheroe, Rochdale, Blackburn, and Manchester Victoria. It therefore provides a reasonable choice for people travelling to and from work and for leisure purposes.
- 5.3.10. It is evident that future site users will have access to bus and train services which provide travel to a range of destinations with a good frequency, making the site accessible without the use of a private car.
- 5.3.11. Using the abovementioned public transport information, a calculation of the Accessibility Index (AI) score results in a figure of 8.12.

5.4 SUMMARY

- 5.4.1. It is evident that the site is well connected by sustainable modes of transport given its proximity to Rochdale town centre and Castleton Rail Station by walking and cycling. This ensures the Proposed Development is accessible from a significant extent of the borough of Rochdale, Oldham and Greater Manchester by sustainable modes of travel.

6 TRIP GENERATION AND DISTRIBUTION

6.1 TRIP GENERATION

- 6.1.1. This chapter sets out the forecast number of vehicular trips which would be generated by the proposed development, and comments upon the impact which the addition of these trips would have on the local highway network.
- 6.1.2. The peak hours used in the assessment have been taken as the traditional morning and evening peak hours of 08:00 to 09:00 and 17:00 to 18:00.
- 6.1.3. The trip rates and trip generation are based on the illustrative masterplan and comprising the following development parameters:
- 314 residential houses; and
 - 13,000 m² GFA of industrial space

RESIDENTIAL TRIP GENERATION

- 6.1.4. The TRICS v7.9.2 database has been used to obtain representative trip rates for the proposed residential units within the proposed development. The following criteria were used to obtain vehicular trip rates from TRICS:
- Residential: Houses Privately Owned;
 - Sites in Greater London and Ireland excluded; and
 - Suburban Area, Edge of Town and Free Standing Locations.
- 6.1.5. The full TRICS report is provided in Appendix D. Table 6-1 outlines the residential vehicular trip rates and trip generation for the AM and PM peak period.

Table 6-1 – Residential Vehicular Trip Rates and Trip Generation

	Weekday AM Peak (0800-0900)			Weekday PM Peak (1700-1800)		
	Arr.	Dep.	Total	Arr.	Dep.	Total
Trip Rate (Per Dwelling)	0.148	0.394	0.542	0.359	0.166	0.525
Trip Generation	46	123	169	112	52	164

INDUSTRIAL TRIP GENERATION

- 6.1.6. The TRICS v7.9.2 database has been used to obtain representative trip rates for the proposed industrial units within the proposed development. The following criteria were used to obtain multi-modal sites from TRICS:
- Employment: Industrial Unit;
 - Sites in Greater London and Ireland excluded; and
 - Suburban Area, Edge of Town and Free Standing Locations.
- 6.1.7. The full TRICS report is provided in Appendix D. Table 6-2 shows the vehicular trip rates and trip generation for industrial developments of the site.

Table 6-2 – Employment: Industrial Vehicular Trip Rates and Trip Generation

	Weekday AM Peak (0800-0900)			Weekday PM Peak (1700-1800)		
	Arr.	Dep.	Total	Arr.	Dep.	Total
Trip Rate (per 100 m ² GFA)	0.323	0.058	0.381	0.082	0.233	0.317
Trip Generation	38	7	45	10	27	37

TOTAL TRIP GENERATION

6.1.8. The total vehicular trip generation is summarised in Table 6-3.

Table 6-3 – Total Vehicular Trip Generation

	Weekday AM Peak (0800-0900)			Weekday PM Peak (1700-1800)		
	Arr.	Dep.	Total	Arr.	Dep.	Total
Total Trip Generation	84	130	214	122	79	201

6.1.9. The proposed development is forecast to generate a total of 214 two-way vehicle trips in the AM period and 201 two-way vehicle trips in the PM peak period.

6.2 TRIP DISTRIBUTION

RESIDENTIAL TRAFFIC

6.2.1. All residential development traffic has been distributed based on 2021 census journey to work data. Trip distribution for the development has been undertaken based on the origin-destination data for the usual journey to work from an individual's home to their normal place of work using table ODWP01EW of the 2021 Census data. The data is analysed using the Census geography for Middle Super Output Area (MSOA). The MSOA for the individual's home has been taken as "Rochdale 021", where the site is located.

6.2.2. Table 6-4 lists the proportionate split of destinations people travel to and from Rochdale 021 for work purposes.

Table 6-4 – Proportionate split of destinations for work purposes

Location	Work trips to Rochdale 021 MSOA
Middleton	82%
Rochdale	7%
Oldham	5%
Manchester	4%
Bury	2%

6.2.3. Applying the proportionate split shown in Table 6-4, trips have been assigned to the road network using the nearest vehicle access point and using the most logical routes.

INDUSTRIAL TRAFFIC

- 6.2.4. The trip distribution for industrial traffic has been forecasted based on the proportionate split shown in Table 6-4. Trips have been assigned to the road network using the nearest vehicle access point and using the most logical routes.

7 TRAFFIC CAPACITY ASSESSMENT

7.1 INTRODUCTION

7.1.1. Following the Places for Everyone Locality Assessments, the following junctions have been assessed in the traffic capacity assessment and can be seen in Figure 7-1:

1. M62 J19;
2. M62 J20;
3. A627(M) Slattocks Interchange;
4. A664 Rochdale Road / A661 (Slattocks Roundabout);
5. A664 Rochdale Road / A6046 Hollin Lane; and
6. A627(M) / Broadway

Figure 7-1 - Junction Locations for Traffic Capacity Assessment



7.1.2. Junction capacity assessments of the above junctions have been undertaken using junction modelling software. Signalised junctions have been modelled using LinSig 3 software, and priority-controlled junctions have been modelled using Junctions 10 software.

7.1.3. The peak hours used in the traffic capacity assessment have been taken as the traditional morning and evening peak weekday hours of 08:00 to 09:00 and 17:00 to 18:00.

7.2 SCENARIOS

7.2.1. The following scenarios extracted from the Places for Everyone Locality Assessment (PfE LA) have been assessed in the junction capacity assessment:

- 2025 Base (PfE LA scenario);
- 2040 Do-Minimum (without proposed development) (PfE LA minus proposed development trip generation); and
- 2040 Do-Something (with proposed development) (PfE LA).

7.2.2. The full outputs from the junction capacity assessments are provided in Appendix F.

7.3 RESULTS

M62 J19

7.3.1. M62 J19 is a five-arm signalised roundabout. The junction modelling results for the 2025 Base, 2040 Do-Minimum and Do-Something are shown in Table 7-1.

Table 7-1 – M62 J19 Junction Capacity Results

Arm/Movement	AM Peak (08:00 – 09:00)		PM Peak (17:00 – 18:00)	
	Queue (PCU)	DoS (%)	Queue (PCU)	DoS (%)
2025 Base				
PCR / Cycle Time	-3.8% / 87s		10.9% / 118s	
1/1 + 1/2 Middleton Road North	25	91.7	22	81.2
2/2 M62 J19 East off slip Left	5	48.8	7	41.1
3/2 + 3/1 Middleton Road South	10	75.7	8	62.4
4/2 M62 J19 West off slip Left	2	23.0	7	37.2
5/1 Queen Elizabeth II Way U-Turn Ahead	9	52.9	9	47.8
7/2 Circular East Ahead	8	41.3	11	47.1
10/1 Circular West Left	1	24.1	1	23.8
16/2 Circular North Right	21	93.4	13	80.1

Arm/Movement	AM Peak (08:00 – 09:00)		PM Peak (17:00 – 18:00)	
	Queue (PCU)	DoS (%)	Queue (PCU)	DoS (%)
17/2 Circular South Right	5	48.5	7	34.9
18/1 Circular North West Left Right	6	41.6	5	44.7
2040 Do-Minimum				
PCR / Cycle Time	-20.6% / 87s		-6.0% / 118s	
1/1 + 1/2 Middleton Road North	85	108.4	15	79.9
2/2 M62 J19 East off slip Left	10	57.7	16	67.5
3/2 + 3/1 Middleton Road South	22	91.4	18	77.9
4/2 M62 J19 West off slip Left	11	77.3	12	55.1
5/1 Queen Elizabeth II Way U-Turn Ahead	43	103.9	21	94.9
7/2 Circular East Ahead	13	63.3	12	70.8
10/1 Circular West Left	12	65.3	20	83.8
16/2 Circular North Right	61	108.5	25	82.0
17/2 Circular South Right	12	89.4	9	68.1
18/1 Circular North West Left Right	31	94.9	51	95.4
2040 Do-Something				
PCR / Cycle Time	-20.2% / 87s		-22.2% / 118s	
1/1 + 1/2 Middleton Road North	81	107.8	94	110.0

Arm/Movement	AM Peak (08:00 – 09:00)		PM Peak (17:00 – 18:00)	
	Queue (PCU)	DoS (%)	Queue (PCU)	DoS (%)
2/2 M62 J19 East off slip Left	12	70.3	18	82.2
3/2 + 3/1 Middleton Road South	39	100.3	12	69.0
4/2 M62 J19 West off slip Left	10	67.6	18	74.5
5/1 Queen Elizabeth II Way U-Turn Ahead	49	106.4	43	109.7
7/2 Circular East Ahead	8	53.2	20	63.7
10/1 Circular West Left	11	70.6	17	76.1
16/2 Circular North Right	60	108.2	84	109.4
17/2 Circular South Right	15	71.9	16	58.2
18/1 Circular North West Left Right	31	94.1	55	96.7

- 7.3.2. The junction modelling result shows that M62 J19 is slightly overloaded in 2025 Base AM peak hour but operates within capacity during PM peak hour. The junction becomes more overloaded in 2040 Do-Minimum and Do-Something scenarios.
- 7.3.3. It should be noted that there is no significant difference between the Do-Minimum and the Do-Something scenarios, meaning that the development proposals do not proportionally have an impact on the performance of the junction.

M62 J20

- 7.3.4. M62 J20 is a four-arm signalised roundabout. The junction modelling results for the 2025 Base and 2040 Do-Minimum are shown in Table 7-2.

Table 7-2 – M62 J20 Junction Capacity Results

Arm/Movement	AM Peak (08:00 – 09:00)		PM Peak (17:00 – 18:00)	
	Queue (PCU)	DoS (%)	Queue (PCU)	DoS (%)
2025 Base				

Arm/Movement	AM Peak (08:00 – 09:00)		PM Peak (17:00 – 18:00)	
	Queue (PCU)	DoS (%)	Queue (PCU)	DoS (%)
PCR / Cycle Time	-20.2% / 115s		-19.3% / 116s	
2/1 A627(M) N Entry Left Ahead	28	90.5	29	90.2
4/1 M62 E Off Entry Left	48	108.0	40	107.3
6/1 A627(M) S Entry Left	79	107.3	87	107.1
8/1 M62 W Off Entry Left	41	98.1	21	80.1
11/2 A627(M) N Circular Ahead Right	18	83.3	20	83.5
12/2 A62 E Circular Ahead Right	93	106.9	39	94.8
13/2 A627(M) S Circular Ahead Right	66	108.2	52	107.4
14/1 M62 W Circular Ahead	40	100.3	28	90.8
2040 Do-Minimum				
PCR / Cycle Time	-76.7% / 115s		-79.4% / 116s	
2/1 A627(M) N Entry Left Ahead	199	141.4	92	113.4
4/1 M62 E Off Entry Left	192	158.9	200	160.3
6/1 A627(M) S Entry Left	441	159.0	468	161.4
8/1 M62 W Off Entry Left	56	101.8	25	86.7
11/2 A627(M) N Circular Ahead Right	21	84.8	30	95.8

Arm/Movement	AM Peak (08:00 – 09:00)		PM Peak (17:00 – 18:00)	
	Queue (PCU)	DoS (%)	Queue (PCU)	DoS (%)
12/2 A62 E Circular Ahead Right	237	127.5	161	117.0
13/2 A627(M) S Circular Ahead Right	209	158.5	200	160.6
14/2 M62 W Circular Right	46	103.8	41	99.4
2040 Do-Something				
PCR / Cycle Time	-76.7% / 115s		-79.4% / 116s	
2/1 A627(M) N Entry Left Ahead	199	141.4	92	113.4
4/1 M62 E Off Entry Left	192	158.9	200	160.3
6/1 A627(M) S Entry Left	441	159.0	468	161.4
8/1 M62 W Off Entry Left	56	101.8	25	86.7
11/2 A627(M) N Circular Ahead Right	21	84.8	30	95.8
12/2 A62 E Circular Ahead Right	237	127.5	161	117.0
13/2 A627(M) S Circular Ahead Right	209	158.5	200	160.6
14/2 M62 W Circular Right	46	103.8	41	99.4

- 7.3.5. The junction modelling result shows that M62 J20 is overloaded in both baseline and future year scenarios. Mitigation measures identified in the Places for Everyone Locality Assessment to improve the junction performance of the roundabout are included in **Section 7.4**, which provides further detail on the mitigation measures and its junction capacity results.

A627(M) Slattocks Interchange

- 7.3.6. A627(M) Slattocks Interchange is a three-arm priority roundabout. The junction modelling results for the 2025 Base, 2040 Do-Minimum and Do-Something are shown in Table 7-3.

Table 7-3 – A627(M) Slattocks Interchange Junction Capacity Results

Arm/Movement	AM Peak (08:00 – 09:00)			PM Peak (17:00 – 18:00)		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2025 Base						
A627(M) North	0	2	0.22	0	2	0.17
A627(M) South	1	3	0.46	1	2	0.36
A627(M) West	1	2	0.39	0	2	0.30
2040 Do-Minimum						
A627(M) North	1	4	0.55	1	3	0.42
A627(M) South	2	7	0.69	1	4	0.50
A627(M) West	2	4	0.67	2	3	0.62
2040 Do-Something						
A627(M) North	1	4	0.55	1	3	0.43
A627(M) South	2	7	0.70	1	4	0.50
A627(M) West	2	4	0.68	2	3	0.62

7.3.7. The junction modelling result shows that A627(M) Slattocks Interchange operates well within capacity in baseline and future year scenarios.

7.3.8. The result shows that the addition of the proposed development traffic in the Do-Something scenarios will have a negligible impact on the operation of the priority junction.

A664 Rochdale Road / A661 (Slattocks Roundabout)

7.3.9. A664 Rochdale Road / A661 is a five-arm priority roundabout. The junction modelling results for the 2025 Base, 2040 Do-Minimum and Do-Something are shown in Table 7-4.

Table 7-4 – A664 Rochdale Road / A661 Junction Capacity Result

Arm/Movement	AM Peak (08:00 – 09:00)			PM Peak (17:00 – 18:00)		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2025 Base						
A627(M)	6	13	0.86	2	4	0.60
Bentley Avenue	0	17	0.10	0	6	0.01
Whitbrook Way	0	2	0.16	1	4	0.53
A664 Rochdale Road West	2	6	0.69	2	6	0.64
A664 Rochdale Road North	2	11	0.69	1	4	0.34
2040 Do-Minimum						
A627(M)	398	710	1.33	9	18	0.91
Bentley Avenue	1	18	0.53	10	87	0.96
Whitbrook Way	1	3	0.39	4	15	0.82
A664 Rochdale Road West	4	11	0.81	9	27	0.91
A664 Rochdale Road North	473	1424	1.71	16	55	0.97
2040 Do-Something						
A627(M)	444	710	1.36	11	18	0.91
Bentley Avenue	1	18	0.55	10	87	0.96
Whitbrook Way	1	3	0.39	4	15	0.82
A664 Rochdale Road West	5	14	0.85	9	27	0.91
A664 Rochdale Road North	516	1600	1.79	16	55	0.97

7.3.10. The junction modelling result shows that A664 Rochdale Road / A661 (Slattocks Roundabout) is at capacity in both future year scenarios. Mitigation measures identified in the Places for Everyone Locality Assessment to improve the junction performance of the roundabout are included in **Section 7.4**, which provides further detail on the mitigation measures and its junction capacity results.

A664 Rochdale Road / A6046 Hollin Lane

7.3.11. A664 Rochdale Road / A6046 Hollin Lane is a four-arm signalised junction. The junction modelling results for the 2025 Base, 2040 Do-Minimum and Do-Something are shown in Table 7-5.

Table 7-5 – A664 Rochdale Road / A6046 Hollin Lane Junction Capacity Result

Arm/Movement	AM Peak (08:00 – 09:00)		PM Peak (17:00 – 18:00)	
	Queue (PCU)	DoS (%)	Queue (PCU)	DoS (%)
2025 Base				
PCR / Cycle Time	43.2% / 95s		35.3% / 105s	
1/1 + 1/2 A664 Rochdale Road S Left Ahead Right	10	62.9	13	66.5
2/2 + 2/1 A6046 Hollin Lane Right Left Ahead	4	61.7	5	65.9
3/1 + 3/2 A664 Rochdale Road N Ahead Right Left	7	60.6	13	66.3
4/1 Access Road Left Ahead Right	0	0.0	0	0.0
2040 Do-Minimum				
PCR / Cycle Time	2.6% / 95s		3.4% / 105s	
1/1 + 1/2 A664 Rochdale Road S Left Ahead Right	16	85.5	13	70.0
2/2 + 2/1 A6046 Hollin Lane Right Left Ahead	11	87.7	8	85.9
3/1 + 3/2 A664 Rochdale Road N Ahead Right Left	12	86.8	24	87.0
4/1 Access Road Left Ahead Right	0	0.0	0	0.0

Arm/Movement	AM Peak (08:00 – 09:00)		PM Peak (17:00 – 18:00)	
	Queue (PCU)	DoS (%)	Queue (PCU)	DoS (%)
2040 Do-Something				
PCR / Cycle Time	0.6% / 95s		3.4% / 105s	
1/1 + 1/2 A664 Rochdale Road S Left Ahead Right	18	89.5	16	76.6
2/2 + 2/1 A6046 Hollin Lane Right Left Ahead	11	88.7	9	86.6
3/1 + 3/2 A664 Rochdale Road N Ahead Right Left	12	86.8	24	87.0
4/1 Access Road Left Ahead Right	0	0.0	0	0.0

7.3.12. The junction modelling result shows that the signalised junction operates well within capacity in baseline and future year scenarios.

7.3.13. The result shows that the addition of the proposed development traffic in the Do-Something scenarios will have a negligible impact on the operation of the junction.

A627(M) / Broadway

7.3.14. A627(M) / Broadway is a five-arm signalised roundabout. The junction modelling results for the 2025 Base, 2040 Do-Minimum and Do-Something are shown in Table 7-6.

Table 7-6 – A627(M) / Broadway Junction Capacity Result

Arm/Movement	AM Peak (08:00 – 09:00)		PM Peak (17:00 – 18:00)	
	Queue (PCU)	DoS (%)	Queue (PCU)	DoS (%)
2025 Base				
PCR / Cycle Time	-49.3% / 70s		-57.2% / 70s	
1/1 A627M N Off Left Ahead	32	96.3	17	81.3
3/2 + 3/3 A663 Broadway (Entry) Left	53	107.0	3	83.8

Arm/Movement	AM Peak (08:00 – 09:00)		PM Peak (17:00 – 18:00)	
	Queue (PCU)	DoS (%)	Queue (PCU)	DoS (%)
5/2 + 5/1 A627 Chadderton Way (Entry) U-Turn Left	266	134.4	295	141.5
7/2 A627M S Off Left	0	0.6	0	0.0
9/1 + 9/2 Burnley Lane (Entry) Ahead	0	7.9	0	8.3
11/2 RB Circular North Ahead Right	11	93.2	5	72.9
12/2 RB Circular East Ahead	26	96.0	14	79.7
13/3 RB Circular South East Right	100	133.4	87	133.4
2040 Do-Minimum				
PCR / Cycle Time	-64.7% / 70s		-56.7% / 70s	
1/1 A627M N Off Left Ahead	45	99.6	28	93.2
3/2 + 3/3 A663 Broadway (Entry) Left	221	146.4	145	134.0
5/2 + 5/1 A627 Chadderton Way (Entry) U-Turn Left	366	148.3	330	141.0
7/2 A627M S Off Left	0	7.8	0	4.9
9/1 + 9/2 Burnley Lane (Entry) Ahead	0	7.0	0	7.8
11/2 RB Circular North Ahead Right	4	67.2	3	52.0
12/2 RB Circular East Ahead	90	112.3	18	86.1
13/3 RB Circular South East Right	127	146.6	112	140.6

Arm/Movement	AM Peak (08:00 – 09:00)		PM Peak (17:00 – 18:00)	
	Queue (PCU)	DoS (%)	Queue (PCU)	DoS (%)
2040 Do-Something				
PCR / Cycle Time	-65.7% / 70s		-60.7% / 70s	
1/1 A627M N Off Left Ahead	96	108.1	41	98.8
3/2 + 3/3 A663 Broadway (Entry) Left	214	149.1	117	124.1
5/2 + 5/1 A627 Chadderton Way (Entry) U-Turn Left	364	148.4	349	144.6
7/2 A627M S Off Left	0	7.6	0	4.9
9/1 + 9/2 Burnley Lane (Entry) Ahead	0	7.2	0	7.9
11/2 RB Circular North Ahead Right	2	49.7	2	39.6
12/2 RB Circular East Ahead	27	96.0	17	84.3
13/3 RB Circular South East Right	117	144.1	125	143.0

7.3.15. The junction modelling result shows that the roundabout performs above capacity in baseline and all future year scenarios.

7.3.16. It should be noted that there is no significant difference between the Do-Minimum and the Do-Something scenarios, meaning that the development proposals do not proportionally have an impact on the performance of the junction.

7.4 MITIGATION MEASURES

M62 J20

7.4.1. The Places for Everyone Locality Assessment identified the following mitigation for the M62 J20 as shown in Figure 7-2 and Figure 7-3. Appendix G shows the proposed slip road layout of M62 J20. This includes:

- Adopting the layout principles as per M62 J18;
- Additional left turn only on the A627(M) northbound towards the M62 westbound off slip road; and
- Lane markings as shown and following DMRB Standards.

7.4.2. The junction modelling results of the proposed M62 J20 layout for 2040 Do-Minimum and Do-Something are shown in Table 7-7.

Table 7-7 – Proposed M62 J20 Junction Capacity Result

Arm/Movement	AM Peak (08:00 – 09:00)		PM Peak (17:00 – 18:00)	
	Queue (PCU)	DoS (%)	Queue (PCU)	DoS (%)
2040 Do-Minimum				
PCR / Cycle Time	-37.5% / 115s		-34.2% / 116s	
2/3 A627(M) N Entry Ahead	172	123.6	148	120.5
4/2 M62 E Off Entry Ahead	23	116.2	7	83.3
6/1 A627(M) S Entry Left	445	123.0	422	120.8
8/1 M62 W Off Entry Left	148	123.7	38	99.9
9/1 M62 W Off Approach Ahead	221	102.2	2	77.2
11/3 A627(M) N Circ Right	123	123.3	38	100.0
12/1 A62 E Circ Ahead	79	101.6	34	86.1
13/2 A627(M) S Circ Ahead Right	32	100.4	28	98.3
14/2 M62 W Circ Ahead Right	63	105.6	90	109.5
2040 Do-Something				
PCR / Cycle Time	-37.5% / 115s		-34.2% / 116s	
2/3 A627(M) N Entry Ahead	172	123.6	148	120.5
4/2 M62 E Off Entry Ahead	23	116.2	7	83.3

Arm/Movement	AM Peak (08:00 – 09:00)		PM Peak (17:00 – 18:00)	
	Queue (PCU)	DoS (%)	Queue (PCU)	DoS (%)
6/1 A627(M) S Entry Left	445	123.0	422	120.8
8/1 M62 W Off Entry Left	148	123.7	38	99.9
9/1 M62 W Off Approach Ahead	221	102.2	2	77.2
11/3 A627(M) N Circ Right	123	123.3	38	100.0
12/1 A62 E Circ Ahead	79	101.6	34	86.1
13/2 A627(M) S Circ Ahead Right	32	100.4	28	98.3
14/2 M62 W Circ Ahead Right	63	105.6	90	109.5

7.4.3. When assessing the proposed mitigation layout, the model indicates that the junction performs better than in the existing layout. Meaning that the mitigation proposals described above have a significant positive impact on the performance of the junction.

7.4.4. The result shows that the addition of the proposed development traffic in the Do-Something scenarios will have a negligible impact on the operation of the signalised roundabout.

A627(M) / A664 Rochdale Road

7.4.5. The Places for Everyone Locality Assessment identified the following mitigation A627(M) / A664 Rochdale Road as shown in Figure 7-4 and Figure 7-5. Appendix G shows the proposed layout of A627(M) / A664 Rochdale Road. This includes:

- Signalisation of the junction;
- Adding lane markings to the circulatory lanes to improve routing and capacity;
- Adding a third lane by reducing lane width within the existing carriageway in certain sections;
- Increasing the merge length of the A664 Rochdale Road (W) exit by replacing existing hatching with a traffic lane;
- Creating a two-lane system on both approaches and exits of Whitbrook Way by utilising existing hatching space. The proposed system will run to the Finlan Road junction, where the existing layout will continue as one-lane per direction; and
- Upgrading A627(M) pedestrian crossing facilities to improve active travel connectivity.

Figure 7-4 - Proposed layout of A627(M) / A664 Rochdale Road

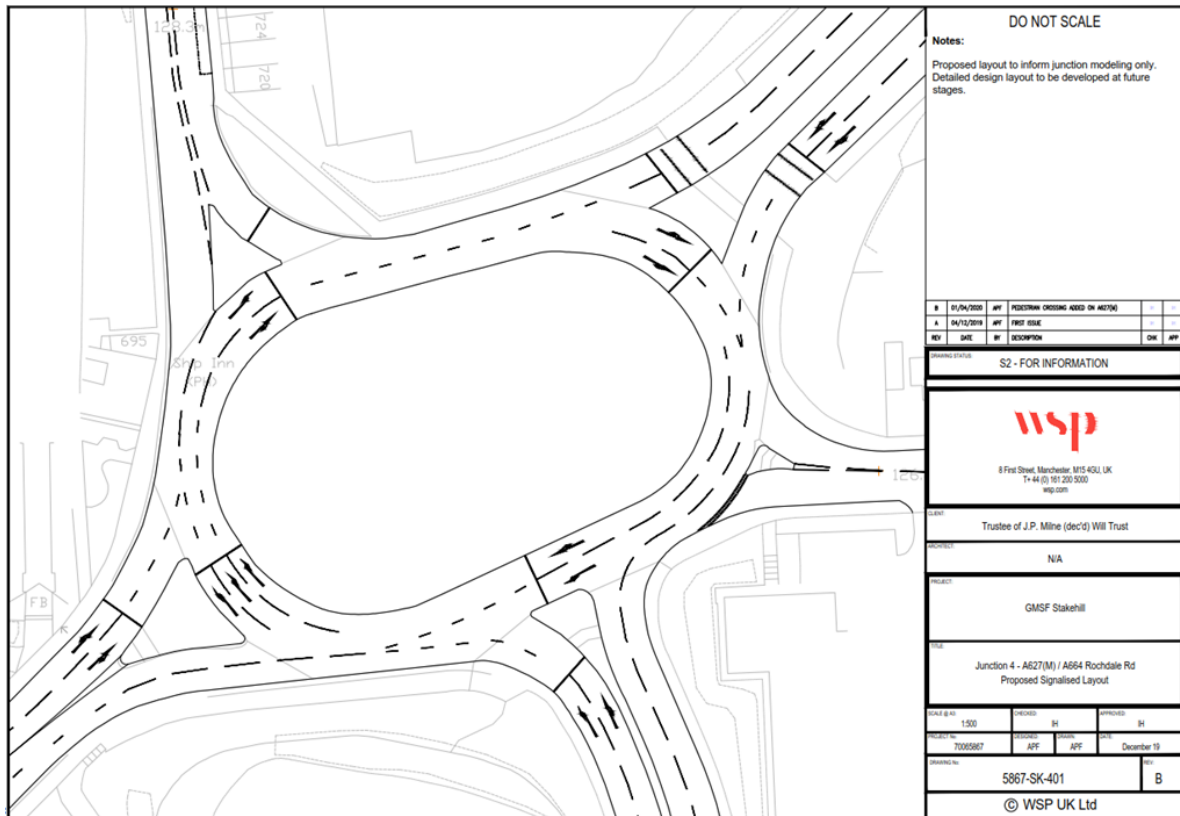
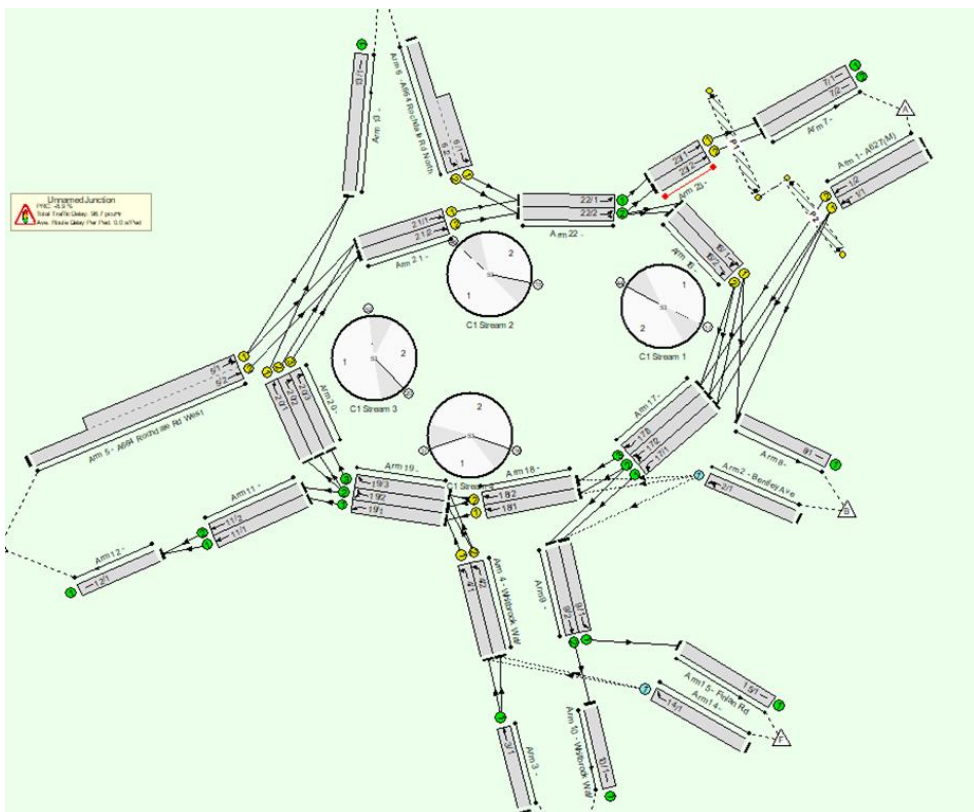


Figure 7-5 - Indicative layout of proposed A627(M) / A664 Rochdale Road in LinSig 3



7.4.6. The junction modelling results of the proposed A627(M) / A664 Rochdale Road layout for the 2040 Do-Minimum and Do-Something are shown in Table 7-8.

Table 7-8 - Proposed A627(M) / A664 Rochdale Road Junction Capacity Result

Arm/Movement	AM Peak (08:00 – 09:00)		PM Peak (17:00 – 18:00)	
	Queue (PCU)	DoS (%)	Queue (PCU)	DoS (%)
2040 Do-Minimum				
PCR / Cycle Time	-25.9% / 62s		-9.0% / 77s	
1/1 A627(M) Left Ahead	105	112.2	13	69.4
2/1 Bentley Ave Left Ahead	1	31.9	1	56.5
3/1 Ahead	0	16.4	0	25.0
4/2 Whitbrook Way Left	8	79.1	19	94.5
5/2 + 5/1 A664 Rochdale Road West Left Ahead	10	69.7	22	90.9
6/2 + 6/1 A664 Rochdale Road North Left	92	109.4	9	74.8
16/2 Rbt 1 Right	44	113.3	5	73.9
18/2 Rbt 2 Ahead	6	82.9	26	98.1
20/2 Rbt 3 Right	6	58.4	6	52.3
21/2 Rbt 4 Ahead	54	110.7	8	69.7
2040 Do-Something				
PCR / Cycle Time	-25.9% / 62s		-13.8% / 77s	
1/1 A627(M) Left Ahead	111	113.2	18	81.8
2/1 Bentley Ave Left Ahead	1	34.5	2	59.9
3/1 Ahead	0	16.5	0	25.4

Arm/Movement	AM Peak (08:00 – 09:00)		PM Peak (17:00 – 18:00)	
	Queue (PCU)	DoS (%)	Queue (PCU)	DoS (%)
4/2 Whitbrook Way Left	8	79.5	38	102.4
5/2 + 5/1 A664 Rochdale Road West Left Ahead	10	71.2	23	92.2
6/2 + 6/1 A664 Rochdale Road North Left	114	112.7	14	83.7
16/2 Rbt 1 Right	44	113.3	7	75.3
18/2 Rbt 2 Ahead	8	83.9	38	100.2
20/2 Rbt 3 Right	3	60.7	7	53.4
21/2 Rbt 4 Ahead	50	108.7	7	72.4

- 7.4.7. When assessing the proposed mitigation layout, the model indicates that the junction performs better than in the existing layout. Meaning that the mitigation proposals described above have a significant positive impact on the performance of the junction.
- 7.4.8. The result shows that the addition of the proposed development traffic in the Do-Something scenarios will have a negligible impact on the operation of the signalised roundabout.

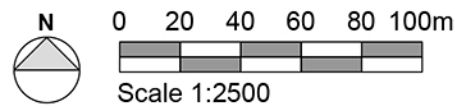
8 SUMMARY

- 8.1.1. WSP have been appointed by Trustees of J.P. Milne Will Trust to provide transport planning support in relation to a planning application for a proposed mixed employment and residential development at the land north and east of Stakehill Industrial Estate in Rochdale, Greater Manchester. This Transport Assessment has been produced to provide transport planning support, alongside an associated Framework Travel Plan and Environmental Statement.
- 8.1.2. This planning application is a continuation of the Greater Manchester Combined Authority Places for Everyone (former Greater Manchester Spatial Framework) and the production of the Locality Assessment for the Northern Gateway (Stakehill) (GM2) site. This was developed to assess the existing transport infrastructure and identify the required multimodal transport interventions to deliver 1900 residential units and 154,219 sqft of Industrial/Warehousing land. In its original form, the southern portion of the GM2 site included 301 residential units and 154,219 sqft of Industrial/Warehousing land.
- 8.1.3. The development proposals consist of 314 residential houses and 13,000 m² GFA of industrial space.
- 8.1.4. It is evident that the site is well connected by sustainable modes of transport given its proximity to Rochdale town centre and Castleton Rail Station by walking and cycling. Regular bus services also operate via Rochdale Road and Finlan Road. This ensures the Proposed Development is accessible from a significant extent of the borough of Rochdale, Oldham and Greater Manchester by sustainable modes of travel.
- 8.1.5. The site is unlikely to have a negative impact on highway safety given the relatively low number of incidents across the traffic network in the local vicinity of the site, with an average of 6.4 collisions per year across the four junctions assessed and four collisions per year across the three links.
- 8.1.6. The TRICS v7.9.2 database has been used to obtain representative trip rates for the proposed residential and industrial units within the proposed development.
- 8.1.7. The illustrative masterplan is forecast to generate a total of 214 two-way vehicle trips in the AM period and 201 two-way vehicle trips in the PM peak period. The additional vehicle trips will be distributed across different access points and then across the local highway network, the impact at any location will be minimised.
- 8.1.8. Trips have been assigned to the road network using the nearest vehicle access point and using the most logical routes.
- 8.1.9. Analysis of identified junctions has been done and summarised in **Chapter 7**. This includes the identified off site highways mitigation at the M62 J20 and the Slattocks Roundabout as outlined in the Places for Everyone Locality Assessment.
- 8.1.10. In conclusion the Proposed Development is consistent with relevant national and local transport policies and the transport impacts of the Proposed Development are considered to be acceptable as outlined in the original Places for Everyone Locality Assessment.

Appendix A

DEVELOPMENT PROPOSALS





Schedule of Accommodation	
POS	Area
POS 1	0.42 acres / 0.17ha
POS 2	0.72 acres / 0.29ha
POS 3	0.60 acres / 0.24ha
POS 4	1.26 acres / 0.51ha
POS 5	1.23 acres / 0.50ha
Total	4.23 acres / 1.71ha

Schedule of Accommodation						
POS	Net Developable Area (Red)	3 Bed 5 Person (Gangs)	4 Bed 6 Person (Gangs)	3 Bed 5 Person (Yellow)	2 Bed 4 Person (Yellow)	TOTAL
R1	1.90 acres / 0.77 ha	8	3	10	6	27
R2	3.19 acres / 1.27 ha	4	3	12	24	43
R3	1.44 acres / 0.58 ha	11	0	10	0	21
R4	1.61 acres / 0.65 ha	8	0	20	0	28
R5	1.22 acres / 0.49 ha	14	0	2	2	18
R6	2.02 acres / 0.80 ha	6	7	14	0	27
R7	1.61 acres / 0.65 ha	0	2	14	8	24
R8	1.72 acres / 0.70 ha	8	5	8	5	27
R9	2.08 acres / 1.16 ha	12	5	14	15	47
R10	3.24 acres / 1.31 ha	10	4	20	15	52
TOTAL	28.83 acres / 11.62 ha	81	29	124	80	314

Schedule of Accommodation					
Unit	Ground Floor GFA	First Floor GFA	Total GFA	Total GFA	Parking (standard provision)
E1	7,840 m ² / 84,360 ft ²	332 m ² / 3,570 ft ²	8,172 m ² / 87,930 ft ²	8,470 m ² / 91,170 ft ²	96 (5)
E2	1,885 m ² / 20,300 ft ²	158 m ² / 1,700 ft ²	2,044 m ² / 22,000 ft ²	2,160 m ² / 23,250 ft ²	35 (2)
E3A	1,092 m ² / 11,750 ft ²	162 m ² / 1,750 ft ²	1,254 m ² / 13,500 ft ²	1,351 m ² / 14,550 ft ²	18 (1)
E3B	896 m ² / 9,640 ft ²	89 m ² / 960 ft ²	985 m ² / 10,600 ft ²	1,066 m ² / 11,470 ft ²	15 (1)
Total			12,815 m² / 138,750 ft²	13,847 m² / 149,440 ft²	164 (9)

NOTES AEWTP027C

- All dimensions and levels are to be checked on site.
- Any discrepancies are to be reported to the architect before any work commences.
- This drawing shall not be scaled to ascertain any dimensions. Work to figured dimensions only.
- This drawing shall not be reproduced without express written permission from AEW.
- Title overlay drawings and ownership boundaries are produced using all reasonable endeavors. AEW cannot be responsible for the accuracy or scale discrepancy of base plans supplied to them.
- All works are to be undertaken in accordance with Building Regulations and the latest British Standards.
- All proprietary materials and products are to be used strictly in accordance with the manufacturers recommendations.

Legend

- Potential new native woodland/ Orchard planting
- Existing Trees / Woodland Screening
- Potential denser native woodland
- Stakehill Fisheries Ponds
- Potential Attenuation Ponds
- Required easements (width to be confirmed)
- Potential LEAP
- Site Boundary
- Industrial Site Boundaries
- Restricted Byway
- Parking Barn
- Swales

P2	03/12/24	LL	AL
Initial issue			
P1	09/10/24	LL	AL
Initial issue			
REV	Date	Drawn by: -	Checked by: -
Status	Purpose of Issue		
S2	For Information		
drawing stage	Feasibility		
client	Trustees of J.P. Milne Will Trust		
project	Stakehill Industrial Estate Stakehill, Middleton		
drawing title	Illustrative Masterplan		
date	09/10/24	drawn	LL
scale@A2	1:2500	checked	AL

Appendix B

WALKING AND CYCLING ACCESSIBILITY ISOCHRONES

