

Middleton Sheet Metal Co. Ltd

Hanson Close,
Middleton

Transport Statement



Control Sheet

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	Checked by		David Colley				22/11/2022	
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Acknowledgements

OpenRouteService and National Geographic Society MapMaker have been used to generate figures included in this report for illustrative purposes only.

The Crashmap Pro Collision Analysis System v1.27 has been utilised to carry out a road traffic incident review.

The TRICS database v7.9.3 has been used in this report to calculate traffic generations.

Census 2011 data from Nomis has been used to predict modal split.

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Drawing 301335-001

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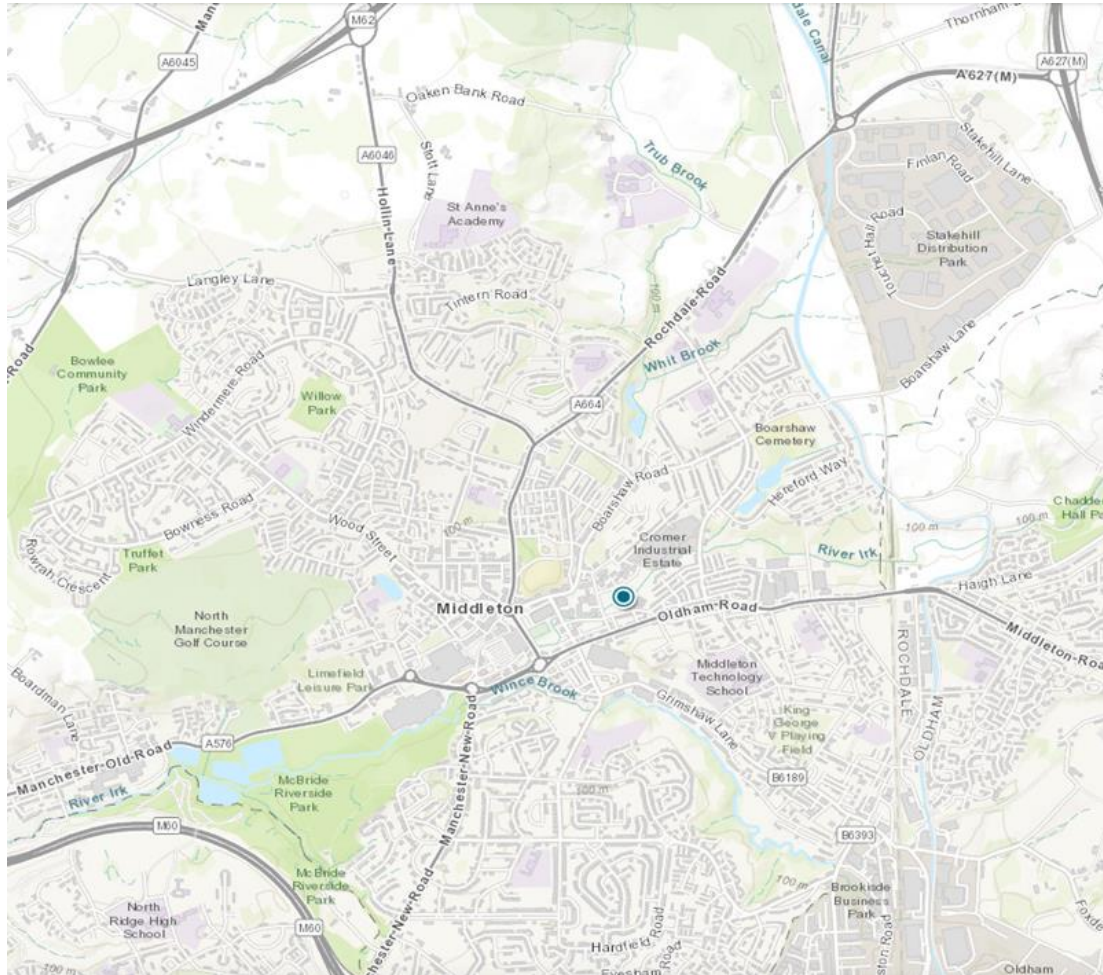
Vehicular TRICS Data

1. Introduction

- 1.1 Sanderson Associates Consulting Engineers have been appointed by Middleton Sheet Metal Co. Ltd, to advise on traffic and transportation issues relating to a proposed industrial unit, located off Hanson Close. The location of the development is shown below on Figure 1.

Figure 1 – Site location

[National Geographic Society MapMaker]



- 1.2 The proposed unit is located on a parcel of previously developed land between Hanson Close and Hanson Street. The unit will replace the clients established business premise which is located to the south of the application site off Spring Vale.
- 1.3 The site was previously visited on Tuesday 18th June 2019 in order to observe and record the prevailing highway conditions.
- 1.4 This Transport Statement will consider in detail the following aspects:
- the local highway network and its road traffic accident record
 - the proposed use and its operational characteristics
 - the impact of the proposals on the local highway network in terms of highway safety

- accessibility of the site in relation to sustainable transport and local facilities and means to encourage the use of sustainable transport.
- 1.5 It also examines the transport implications of the proposed use taking into account whether the applicable objectives included within the National Policy Planning Framework are satisfied.
- 1.6 In July 2021, a new revision to the National Planning Policy Framework (NPPF) was published. NPPF sets out the Government's planning policies for England and how these are expected to be applied.
- 1.7 NPPF paragraph 110 states that;
- “In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:*
- a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*
 - b) safe and suitable access to the site can be achieved for all users;*
 - c) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code 46; and*
 - d) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree”.*
- 1.8 Paragraph 111 goes on to say;
- “Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.”*
- 1.9 This Transport Statement demonstrates that the development will not have an unacceptable impact on highway safety and the residual cumulative impacts of the development on the road network are not severe, consequently the planning application should be supported by the Council on transport grounds.

2. Existing Situation

2.1 *The Site and highway Network*

- 2.1.1 The application site is located on a parcel of land between Hanson Close and Hanson Street with existing access points onto both roads, however at present both of these are redundant as the site has been cleared of buildings. The site lies approximately 0.6km to the east of Middleton centre and approximately 2.3km north east of Junction 20 of the M60.
- 2.1.2 The application site is currently bounded by Hanson Close to the north, industrial developments to the east, river Irk to the south and Hanson Street to the west.
- 2.1.3 The existing established business (Middleton Sheet Metal Co. Ltd) is located to the south of the application site on the opposite bank of the river Irk. The existing business has a floor area of approximately 2,200m²
- 2.1.4 Middleton Sheet Metal Co. Ltd are an established advanced engineering and manufacturing company that designs, develops and delivers a range of quality approved complex technical solutions to the aerospace sector.
- 2.1.5 The existing site employs 55 members of staff that work on a single shift, which are Monday to Thursday 7.15am – 5.00pm and Friday 7.30am – 11.30am. There is also an element of flexible working (depending on workloads) to allow the site to operate 6.00am – 6.00pm Monday to Thursday.
- 2.1.6 Hanson Close is an industrial estate which provides access to various commercial units, it is street lit and subject to a 30 mph speed limit. Within the vicinity of the site it has a carriageway 7.5m wide with 1.8m footways on both flanks. The existing access onto Hanson Close has visibility splays in excess of 43m in both directions at a setback 'X' distance of 2.4m. Behind the footway adjacent to the application site is a landscape strip.
- 2.1.7 Traffic Regulations Orders in the form of double yellow lines are present at the Hanson Close / Hanson Street junction and these also extend approximately 40m east along Hanson Close. During our site visit on street parking (4 cars) was observed on Hanson Close along the site frontage adjacent to the existing access point.
- 2.1.8 From the existing access point Hanson Close runs west where it joins Hanson Street via a priority junction.
- 2.1.9 Hanson Street provides access to various commercial units, it is street lit and subject to a 30 mph speed limit. Within the vicinity of the site it has a carriageway of 5.8m width with 1.8m footways on both flanks.
- 2.1.10 Traffic regulations orders in the form of double yellow lines are present along its entire eastern flank and they are also present on its eastern flank opposite Hanson Close.

2.1.11 Hanson Street runs between John Lee Fold and Spring Vale and it joins both by priority junctions. Within the vicinity of the site there are weight restrictions on the surrounding roads. These are present on John Lee Fold to the east of it junction with Hanson Street and on Boarshaw Road to the north of John Lee Fold.

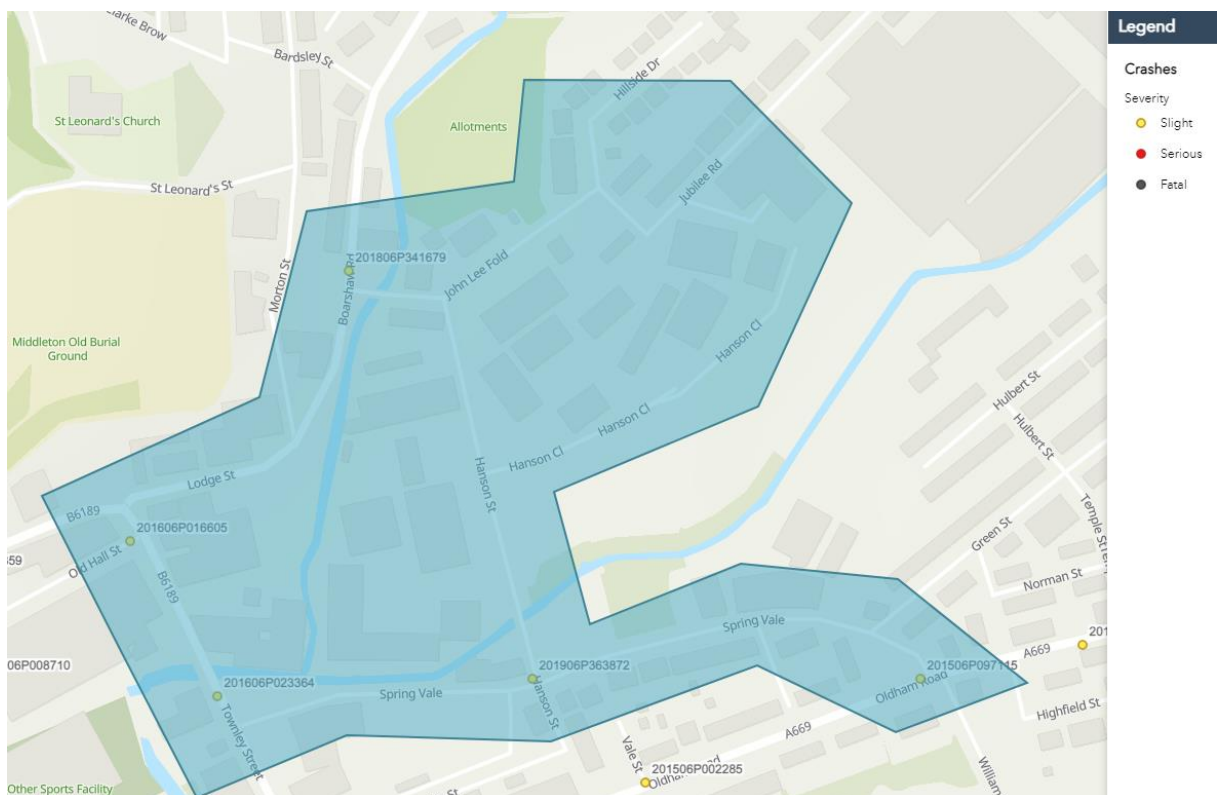
2.1.12 As a result of these restrictions heavy goods vehicles are directed westbound onto the B6189 (Market Place/Townley Street). The B6189 can then be followed east to the A664 roundabout and south to the A669 provide access to the wider highway network.

2.1.13 Bus stops are located on Boarshaw Road approximately 275m of the centre of the site. Further stops are also located on the A669 within 350m of the site, these facilities and bus services are detailed later in this report.

2.2 Personal Injury Accident Data

2.2.1 The Personal Injury Accident history within the vicinity of the site has been considered using the Crashmap Pro Collision Analysis System which identifies all recorded incidents that have occurred in the most recently available 5 year period of 2016 to 2021. An extract of the search area is shown below and a report of the identified study area from Crashmap is attached at **Appendix A**.

Figure 2 – Collision Study Area



- 2.2.2 As can be seen from the summary report, four incidents have been recorded within the vicinity of the site, all of which were slight in severity. 2 incidents occurred in 2016, and 1 each occurred in 2018 and 2019. No incidents have occurred on Hanson Close, Hanson Street or John Lee Fold.
- 2.2.3 Two incidents involved pedestrians, both of which were a collision between a pedestrian and a car. One was a collision between four cars which appear to be a rear shunt type collision.
- 2.2.4 The remaining incidents occurred at the Hanson Street / Spring Vale junction and involved two cars. Both of which were proceeding normally along the carriageway.
- 2.2.5 It is considered that the number, type and severity of the accidents which have occurred are as a result of driver error rather than deficiencies within the highway layout. It is considered that the development proposals would not have a material adverse impact on the existing accident risk of the local highway network.

3. Accessibility by Sustainable Travel Modes

3.1 Overview

3.1.1 This section of the report considers the accessibility of the development by the following modes of transport in order to review the opportunities that will exist for staff.

- Accessibility by Active Travel – walking and cycling;
- Accessibility Public Transport – bus and train

3.2 Active Travel: Walking & Cycling

3.2.1 Walking is the most important mode of transport at the local level and can replace short car trips for journeys under 2km, which contribute to congestion and pollution, and the need for car parking.

3.2.2 Guidance on walking distances is provided within the IHT document ‘Providing for Journeys on Foot’ (2000) as summarised below;

Guidelines for PROVIDING FOR JOURNEYS ON FOOT

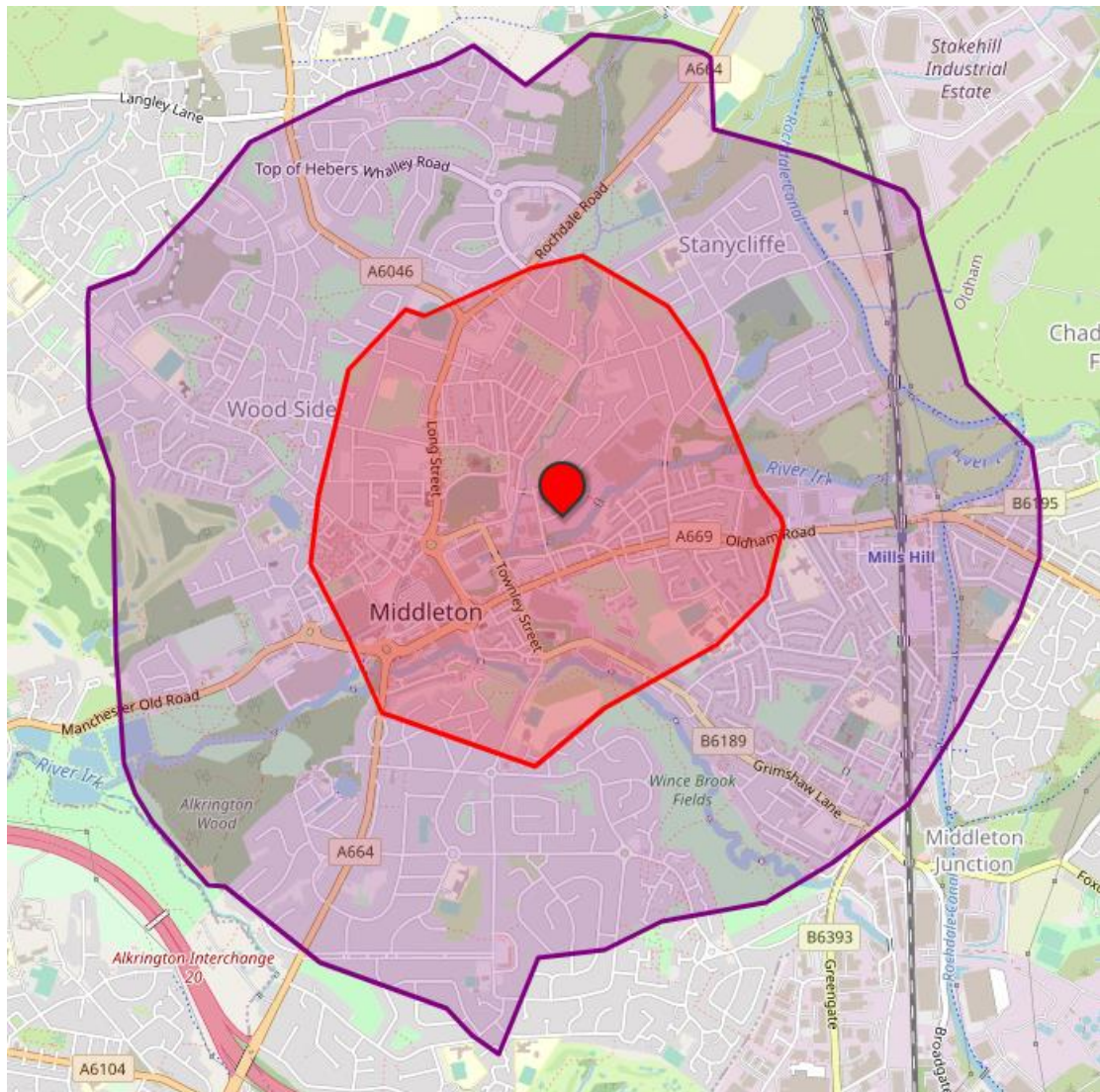
Table 3.2: Suggested Acceptable Walking Distance.

	Town centres (m)	Commuting/School Sight-seeing (m)	Elsewhere (m)
Desirable	200	500	400
Acceptable	400	1000	800
Preferred maximum	800	2000	1200

3.2.3 Figure 3 (overleaf) identifies 1km / 2km walking isochrones from the site in order to illustrate the general extent of the surrounding area that is considered to be accessible on foot.

Figure 3 - 1km / 2km Walking Isochrones

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3.2.4 It is important to consider the routes that would be taken to get to locations as well as the distance. Department for Transport guidance 'Building Sustainable Transport into New Developments' (2008) gives the following advice:

"The propensity to walk or cycle is not only influenced by distance but also the quality of the experience; people may be willing to walk or cycle further where their surroundings are more attractive, safe and stimulating."

3.2.5 Footways that are present on both sides of Hanson Close and Hanson Street with dropped crossings across joining roads. Footway are also provided on the surrounding highway network and there are street-lit. Some of the facilities and amenities located within a walkable distance of the site include:

- Sandwich Shop (190m)
- Pub (210m)
- Bus stops on Boarshaw Road (275m) and the A669 (350m)

- Cafe (400m)
- Off Licence and General Store (410m)
- Hot food takeaways (500m-6000m)
- Bank (700m)
- Tesco Extra Supermarket (850m)
- Boarshaw Pharmacy (870m)
- Middleton Shopping Centre (950)
- Post Office (890m)
- Mills Hill railway station (1400m)

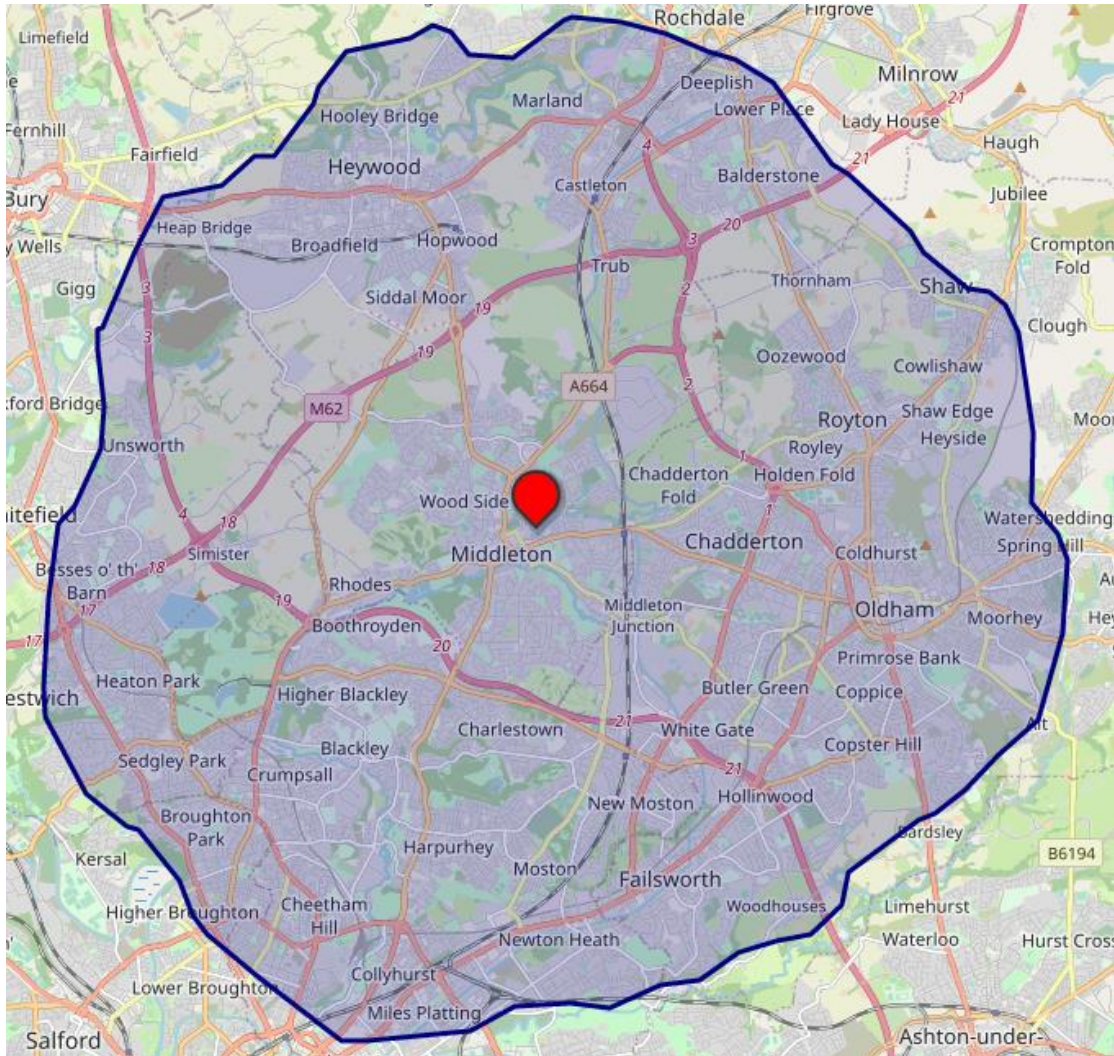
3.2.6 Like walking, cycling has an important part to play in reducing congestion, improving accessibility and reducing pollution. Cycling may also allow people without cars to reach destinations that they may otherwise be unable to reach. CIHT's Planning for Cycling (2014) states that:

"The majority of cycling trips are for short distances, with 80% being less than five miles and with 40% being less than two miles. However, the majority of trips by all modes are also short distances (67% are less than five miles, and 38% are less than two miles); therefore, the bicycle is a potential mode for many of these trips. Electric bicycles extend the range that can be cycled comfortably, and combined cycle-rail or cycle-bus journeys offer an alternative to car travel for many longer trips."

3.2.7 Figure 4 (overleaf) illustrates an 8km (5 mile) cycling isochrone from the site and provides a general indication of the extent of the surrounding area which is accessible by cycle and to the extent of designated cycle routes available.

Figure 4 - 8km cycling Isochrone

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- 3.2.8 Figure 4 indicates that many residential areas, as well as Middleton and Oldham centres, are located within cycling distance. However, as with walking, it is considered that the quality of the available cycle infrastructure is an important factor when it comes to accessibility. The following extract from Transport for Greater Manchester Cycle map (Rochdale Area) details the available cycle routes in the vicinity of the site;

Figure 5 – Extract of Transport for Grater Manchester Cycle map (Rochdale Area)

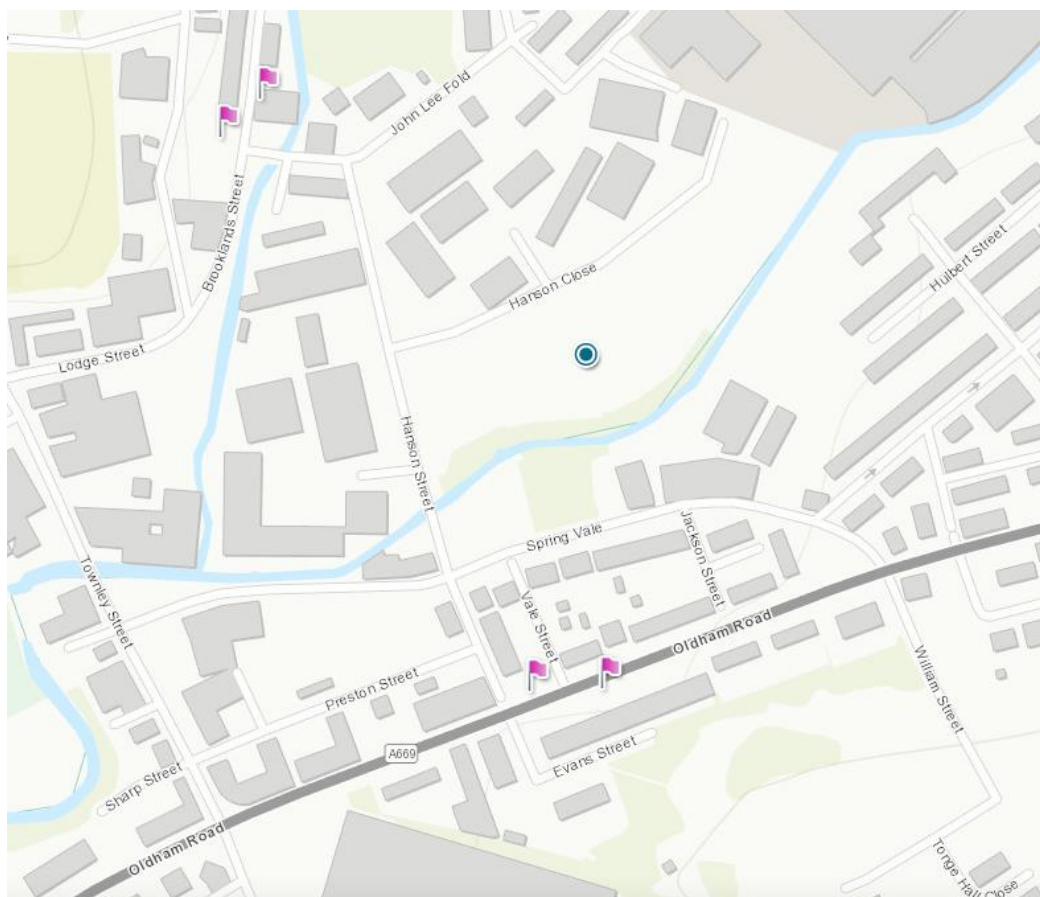


3.2.9 As can be seen above, there are numerous cycle-friendly routes in the vicinity of the site providing links to the many amenities and residential areas around the site.

3.2.10 It is considered that the site's proximity to surrounding local centres and facilities along with the available cycle infrastructure provides adequate incentive to encourage future staff to travel by cycle.

3.3 Accessibility by Bus

3.3.1 The nearest bus stops to the site are located on Boarshaw Road within approximately 275m of the site. In addition, further services are available on the A669 Oldham Road within approximately 350m. The general location of these stops is indicated below;



3.3.2 Details of the facilities provided at the stops, along with the available services are as follows;

Table 1 – Bus stop details

Bus Stop Location	Bus Stop Information		
Boarshaw Road John Lee Fold	Reference	→	MANDWPAD
	Direction of travel	→	Northbound
	Distance from site	→	235m
	Facilities	→	Pole stop
	Services	→	129 Middleton's Minis
	Reference	→	MANDWJMD
	Direction of travel	→	Southbound
	Distance from site	→	250m
	Facilities	→	Pole stop
	Services	→	129 Middleton's Minis

A669 Oldham road	Reference	→	MANDWDMD
	Direction of travel	→	Eastbound
	Distance from site	→	275m
	Facilities	→	Pole stop
	Services	→	59, 114, 396, 795, R7
Vale Street	Reference	→	MANDWPJM
	Direction of travel	→	Westbound
	Distance from site	→	315m
	Facilities	→	Pole stop
	Services	→	59, 112, 114, 396, 795, R7

3.3.3 A summary of the available services is given below:

Table 2 – Bus Services

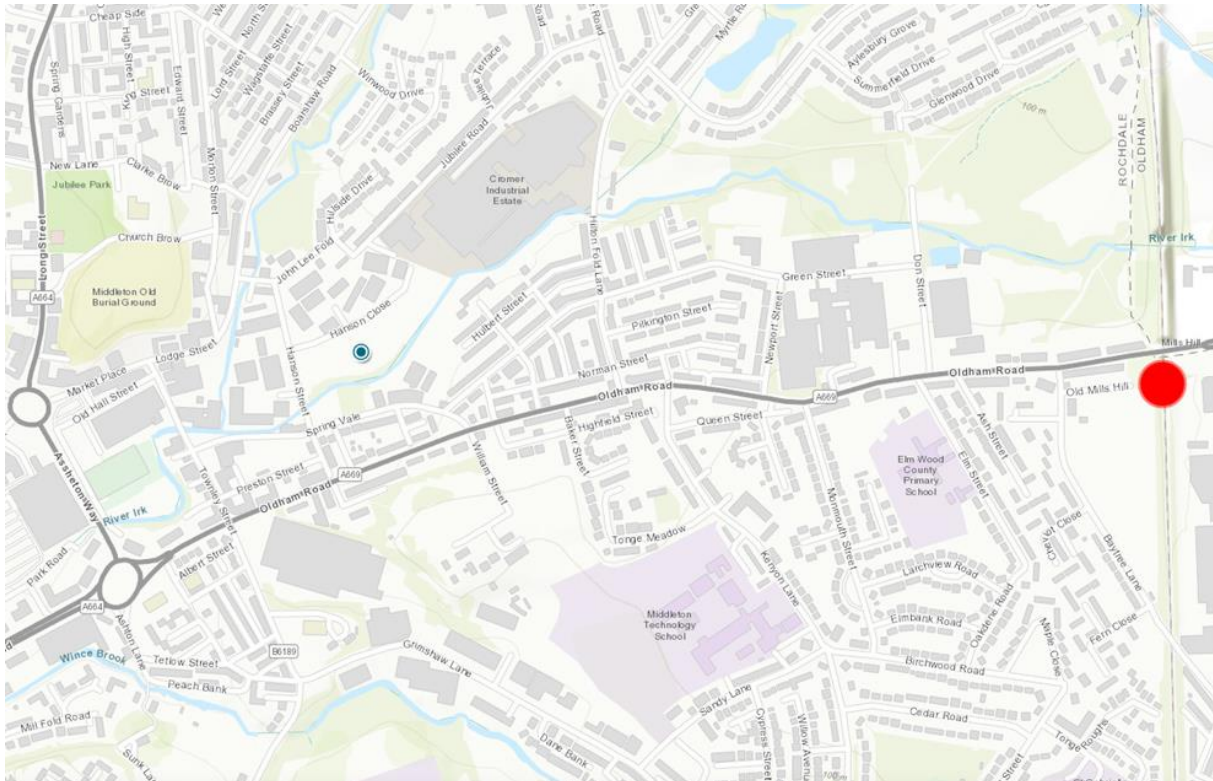
No.	Route	Approximate peak frequency		
		Mon-Sat Daytime	Mon-Sat Evening	Sunday
59	Manchester – Oldham	12 minutes	60 minutes	No Service
112	Manchester – Middleton	15 minutes	20 minutes	30 minutes
114	Manchester – Middleton	20 minutes	60 minutes	60 minutes
129 Middleton's Minis	Middleton – Boarshaw Circular	60 minutes	120 minutes	No Service
396	Middleton - Ashton	No Service	120 minutes	120 minutes
795	Middleton – Crompton House School	1AM/1PM Mon-Fri	No Service	No Service
R7 Rochdale Runners	Rochdale – Kirkholt then Middleton	60 minutes	120 minutes	60 minutes

3.3.4 It is demonstrated that there are regular services within easy walking distance of the site. The services connect to a range of destinations including Manchester and Oldham where a wide range of bus, coach and rail services are available.

3.3.5 It is considered that the proximity of bus stops to the site, combined with the quality of services available makes travel by bus an appealing alternative to travel by car.

3.4 Accessibility by Rail

- 3.4.1 The closest railway station to the site is Mills Hill which is located approximately 1.4km walking distance to the east of the site. The station is accessible via the A669 which provides wide street lit footways and pedestrian crossing facility. The general location of this station is indicated below;



- 3.4.2 The station provides sheltered waiting areas and cycle parking facilities for 10 bicycles. It has two platforms and provides services to Rochdale, Manchester, Bolton, Blackburn, Clitheroe and other local destinations.
- 3.4.3 Bus stops are also located adjacent to this station and services 59, 396 and 795 listed above stop at this location. This journey takes approximately 5 minutes from stop MANDWDM located on the A669.

3.5 Accessibility summary

- 3.5.1 It is considered that the site has access by both means of “active transport” to local facilities and to public passenger transport arrangements. As such staff and visitors to the development will have a choice of sustainable travel options.

4. Development Proposals

- 4.1 This Transport Statement is intended to provide highway and transportation information to facilitate the construction of a new 2,160m² industrial unit and two additional units with floor areas of 576m² and 289m². The proposed unit will replace the clients established business which is located to the south of the application site off Spring Vale. A copy of the proposed site layout plan can be found at **Appendix B**.
- 4.2 The proposed unit is located on a parcel of previously developed land between Hanson Close and Hanson Street. The proposals will be accessed from Hanson Close and the existing access point onto Hanson Street will not be used.
- 4.3 The existing 55 members of staff will all relocate to the new unit and it is proposed that there is future potential for a further 15 members of staff. The existing and proposed staff members will work the same shift times as described in paragraph 2.1.5.
- 4.4 It is proposed to provide 54 parking spaces including 5 disabled bays and 2 motorcycle parking spaces as well as cycle parking for 4 bicycles.
- 4.5 Parking standards have been obtained from Appendix 5 of Rochdale Borough Council's Core Strategy (adopted October 2016). The land use category B2 General Industry has been used, a summary of the maximum parking standards is provided below:
- B2 General Industry**
 1 car space per 60m²
 1 cycle space per 700m² (min 2 spaces) (minimum standard)
 1 powered two wheeled vehicle space per 2800m² (min 2 spaces) (minimum standard)
- 4.6 It is therefore likely that the Council would consider that a maximum of 50 car parking spaces, a minimum of 4 cycle space and a minimum of 2 powered two wheeled vehicle spaces could be provided as a result of the proposals.
- 4.7 The proposed level of car parking is slightly higher than the Councils Standards. However, MSM is a specialist manufacturing business and as such has a higher labour & staff requirements when compared with typical warehousing. Therefore, the level of parking provided for the proposals is considered robust and will restrain the need for any staff to park on street.
- 4.8 The proposed access point will lead to two servicing areas, one for the main unit and the other for units 1 and 2. The main unit will provide two service bays for goods in and goods out and the smaller units will have one bay each.
- 4.9 Drawings 301335-001 and 002 at **Appendix B** show the swept paths of the vehicles accessing the service areas. As can be seen from drawing 301335-001 a 16.5m articulated vehicle can access both loading bays even if the opposing bay is being serviced by another 16.5m articulated vehicle.

- 4.10 Drawings 301335-002 demonstrates that two large rigid vehicles can service units 1 and 2 at the same time without any conflict.
- 4.11 The client has confirmed that the majority of deliveries are made by rigid vehicles and only on rare occasions does an articulated vehicle need to service the site. Therefore, the drawings provided show a very much worst case scenario and demonstrate that vehicles would not block the servicing area, resulting in HGVs having to reverse back onto the highway.

5. Multimodal Trip Generations

5.1 To predict the multimodal trips for the development, the TRICS v7.9.2 database has been used to derive average multimodal trip rates using the following search parameters:

- Land Use: 02 – Employment
- Category: C – Industrial Unit
- Selected Regions and Areas: Greater London and Ireland excluded
- Parameter: Gross Floor Area
- Actual Range: 690 – 5070
- Date Range: 01/01/09 – 14/11/2019
- Selected Survey Days: Monday – Friday
- Selected Locations: Suburban area and edge of town

5.2 The search parameters were refined to closely match the characteristics of the proposed development in an effort to ensure that the resulting trip rates are representative.

5.3 Table 3 provides details of the weekday peak hour and daily multimodal total trip rates per unit along with the corresponding modal percentage split and generated trips for the total proposed floor area (3024m²). The full TRICS output is contained at **Appendix C**.

Table 3 –Multimodal generations for Industrial unit, 3025m²

Time Period	Mode of Travel	Trip Rate	Modal Split	Generations
AM Peak 08:00-09:00	Pedestrians	0.008	1.3%	0
	Cyclists	0.016	2.6%	0
	Public Transport Users	0.000	0.0%	0
	Vehicle Occupants	0.579	95.9%	18
	Total People Trips	0.604	100.0%	18
PM Peak 17:00-18:00	Pedestrians	0.008	2.5%	0
	Cyclists	0	0.0%	0
	Public Transport Users	0.008	2.5%	0
	Vehicle Occupants	0.31	95.1%	9
	Total People Trips	0.326	100.0%	10
Daily	Pedestrians	0.112	2.1%	3
	Cyclists	0.032	0.6%	1
	Public Transport Users	0.008	0.2%	0
	Vehicle Occupants	5.068	97.0%	153
	Total People Trips	5.223	100.0%	158

5.4 The multimodal data identifies that the development could expect to generate 4.1% of trips by walking, cycling and public transport modes in the weekday AM peak, 4.9% on a weekday PM peak period and 3.0% daily.

5.5 The Multi Modal TRICS data has been analysed, however, it is acknowledge that a limited amount of survey data was available. Therefore to provide further analysis of the multi modal split for the development multimodal daily splits for the development have been estimated from the 2011 Census.

5.6 The application site is located within the Salford 008 (2011 super output area - middle layer) and the following patterns have been identified from the 2011 Census based on WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level). These are tabulated below and the estimated travel splits in this case excludes those people working from home and the following areas were selected for the data.

- Usual residence: North West Region
- Place of Work: Salford 008 (2011 super output area - middle layer)

Table 4 – Method of Travel to Work Percentages

Method of Travel to Work	Modal Split
Underground, Metro, Light Rail, Tram	0.2%
Train	0.3%
Bus, Minibus or Coach	14.6%
Taxi	2.2%
Motorcycle, Scooter or Moped	0.5%
Driving a Car or Van	62.3%
Passenger in a Car or Van	6.3%
Bicycle	1.1%
On Foot	12.2%
Other Method of Travel to Work	0.4%

5.7 As can be seen from the above the use of the private car as a means of travelling to work is the most popular method of travel and that vehicle occupants would be 67.6% (62.3+6.3). It also demonstrates that the site could generate 28.2% of trips by walking, cycling and public transport modes.

5.8 Based on the above it is considered that the predicted peak hour demand for walking, cycling and public transport is relatively modest and at a level which is unlikely to have a detrimental impact on the existing infrastructure.

6. Traffic Impact

6.1 The TRICS 7.9.3 database has again been utilised to estimate the likely traffic generated by the existing and proposed development use. The land use category 02 – Employment (C) Industrial Unit has been used to calculate the likely traffic generated by the existing and proposed development. The surveys have been taken from vehicle surveys as more data is available and exclude any sites in London and Ireland. Full copies of the office TRICS output are included in **Appendix D**.

6.2 Given the easily accessible nature of the site to local facilities and to public transport it is considered appropriate to use average trip rates to predict the traffic impact of the development.

6.3 The average trip rates and the resultant traffic generation for the existing unit (located off Spring Vale) are tabulated below for the typical network peaks in the AM and PM periods.

Table 5 – Existing Vehicle Generations – Industrial (2,200m²)

Time Period	Trip Rates		Generations		
	Arrivals	Departures	Arrivals	Departures	Total
AM Peak 08:00-09:00	0.393	0.061	9	1	10
PM Peak 17:00-18:00	0.028	0.310	1	7	8

6.4 The average trip rates and the resultant traffic generation for the proposed unit are tabulated below for the typical network peaks in the AM and PM periods.

Table 6 – Proposed Vehicle Generations – Industrial (3,025m²)

Time Period	Trip Rates		Generations		
	Arrivals	Departures	Arrivals	Departures	Total
AM Peak 08:00-09:00	0.393	0.061	12	2	14
PM Peak 17:00-18:00	0.028	0.310	1	9	10

6.5 The predicted change in vehicular trips are tabulated below.

Table 7 – Resultant Vehicle Generations

Time Period	Generations		
	Arrivals	Departures	Total
AM Peak 08:00-09:00	+3	+1	+4
PM Peak 17:00-18:00	0	+2	+2

- 6.6 Based on the above generations the proposed unit could result in a net increase of 4 vehicle movements (two way) in the AM peak and 3 vehicle movements (two way) in the PM peak. Which equates to one vehicle approximately every 15 minutes in the AM peak and one vehicle approximately every 20 minutes in the PM peak.
- 6.7 In reality the proposed unit is unlikely to generate a material level of traffic on the surrounding highway network within the AM and PM peaks. As existing staff are already travelling on the network and the proposed increase in staff is considered low it is unlikely that development traffic will be discernible against normal daily fluctuations in traffic flow on the local highway network.

7. Conclusion

- 7.1 Sanderson Associates Consulting Engineers have been appointed by Middleton Sheet Metal Co. Ltd, to advise on traffic and transportation issues relating to a proposed industrial unit, located off Hanson Close.
- 7.2 The proposed unit is located on a parcel of previously developed land between Hanson Close and Hanson Street. The unit will replace the client's established business premise which is located to the south of the application site off Spring Vale.
- 7.3 The proposed unit is located on a parcel of previously developed land between Hanson Close and Hanson Street. The proposals will be accessed from Hanson Close and the existing access point onto Hanson Street will not be used.
- 7.4 It is proposed to provide 54 parking spaces including 5 disabled bays and 2 motorcycle parking spaces as well as cycle parking for 4 bicycles.
- 7.5 No accidents have occurred on Hanson Close, Hanson Street or John Lee Fold and there are no significant clusters or trends that could be considered to be cause for concern as a result of the development proposals. It is considered that the number, type and severity of the accidents which have occurred are as a result of driver error rather than a feature of the highway.
- 7.6 In reality the proposed unit is unlikely to generate a material level of traffic on the surrounding highway network within the AM and PM peaks. As existing staff are already travelling on the network and the proposed increase in staff is considered low it is unlikely that development traffic will be discernible against normal daily fluctuations in traffic flow on the local highway network.
- 7.7 It is considered that the site has access by both means of "active transport" to local facilities and to public passenger transport arrangements. As such staff and visitors to the development will have a choice of sustainable travel options.



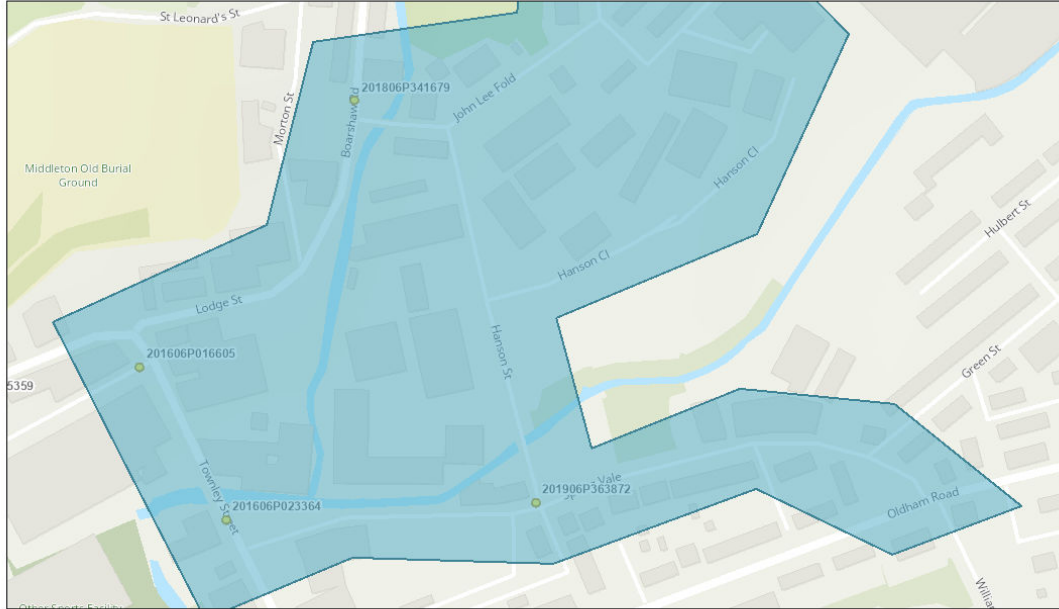
Appendix A

Collison data

Area of Interest (AOI) Information

Area : 118,786.16 m²

Oct 24 2022 12:49:42 British Summer Time



Crashes

● Slight

1:2,252
0 0.02 0.04 0.07 mi
0 0.03 0.06 0.12 km
Contains OS data © Crown Copyright and database right 2022.
Contains data from OS Zoomstack, Contains OS data © Crown Copyright and
database right 2019.

Summary

Name	Count	Area(m²)	Length(m)
Crashes	4	N/A	N/A

Crashes

#	Carriageway_Hazards	Severity	Officer_Attended	Accident_DateTime	Year	Number_of_vehicles	Number_of_casualties	Easting
1	None	Slight	Police officer attended crash scene	November 3, 2016	2016	4	4	387282
2	None	Slight	Police officer attended crash scene	March 10, 2018	2018	1	1	387358
3	None	Slight	Police officer attended crash scene	May 28, 2016	2016	1	1	387231
4	None	Slight	Police officer attended crash scene	October 26, 2019	2019	2	1	387465

#	Northing	Highway_Authority	Road_Number	Weather_conditions	Road_Type	Road_surface	Speed_Limit	Light_conditions
1	405970	Rochdale	B6189	Raining without high winds	Single carriageway	Wet or Damp	30	Darkness: street lights present and lit
2	406217	Rochdale	U0	Fine without high winds	Single carriageway	Dry	30	Daylight: regardless of presence of streetlights
3	406060	Rochdale	U0	Fine without high winds	Single carriageway	Dry	30	Daylight: regardless of presence of streetlights
4	405980	Rochdale	U0	Fine without high winds	Single carriageway	Wet or Damp	30	Daylight: regardless of presence of streetlights

#	Junction_detail	Pedestrian_Crossing	Involved_pedalcycle	Involved_Motorcycle	Pedestrian_casualty	Child_casualty	Pedal_cycleuser_casualty	Motorcycle_user_casualty
1	T or staggered junction	No physical crossing facility within 50 metres	0	0	0	0	0	0
2	T or staggered junction	No physical crossing facility within 50 metres	0	0	1	0	0	0
3	T or staggered junction	No physical crossing facility within 50 metres	0	0	1	1	0	0
4	Crossroads	No physical crossing facility within 50 metres	0	0	0	0	0	0

#	Involved_car	Involved_goodsvehicle	Involved_Bus	Involved_young_driver	Local_Authority_District	Junction_control	Is_Provisional	Is_Amended	Web_Link	Count
1	1	0	0	0	Rochdale Metropolitan Borough	Give way or uncontrolled	No	No	https://www.crashmap.co.uk/reports/proreportservice?reportId=201606P023364	1
2	1	0	0	0	Rochdale Metropolitan Borough	Give way or uncontrolled	No	No	https://www.crashmap.co.uk/reports/proreportservice?reportId=201806P341679	1
3	1	0	0	0	Rochdale Metropolitan Borough	Give way or uncontrolled	No	No	https://www.crashmap.co.uk/reports/proreportservice?reportId=201606P016605	1
4	1	0	0	0	Rochdale Metropolitan Borough	Give way or uncontrolled	No	No	https://www.crashmap.co.uk/reports/proreportservice?reportId=201906P363872	1

Report produced from CrashMap Pro

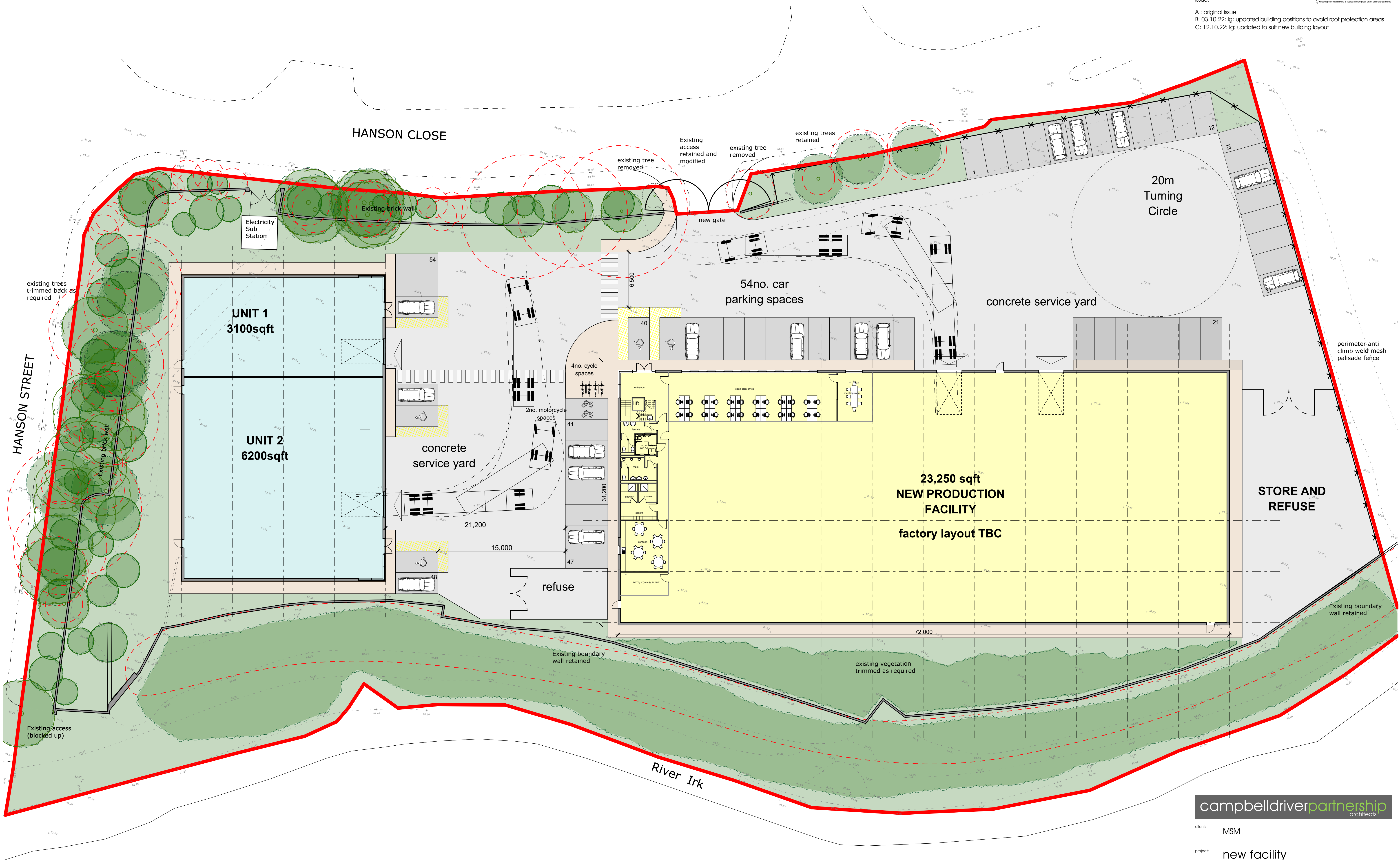


Appendix B

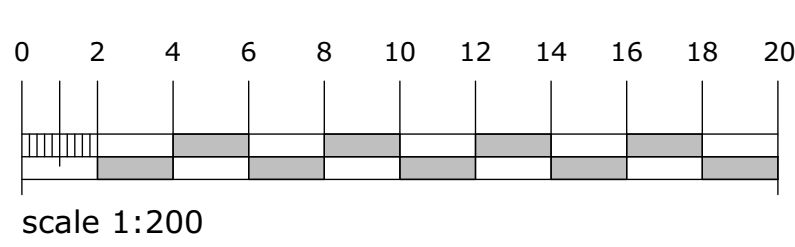
Proposed Site Layout Plan

Drawing 301335-001

Drawing 301335-002



proposed site layout 1:200



campbelldriverpartnership
architects

client: MSM

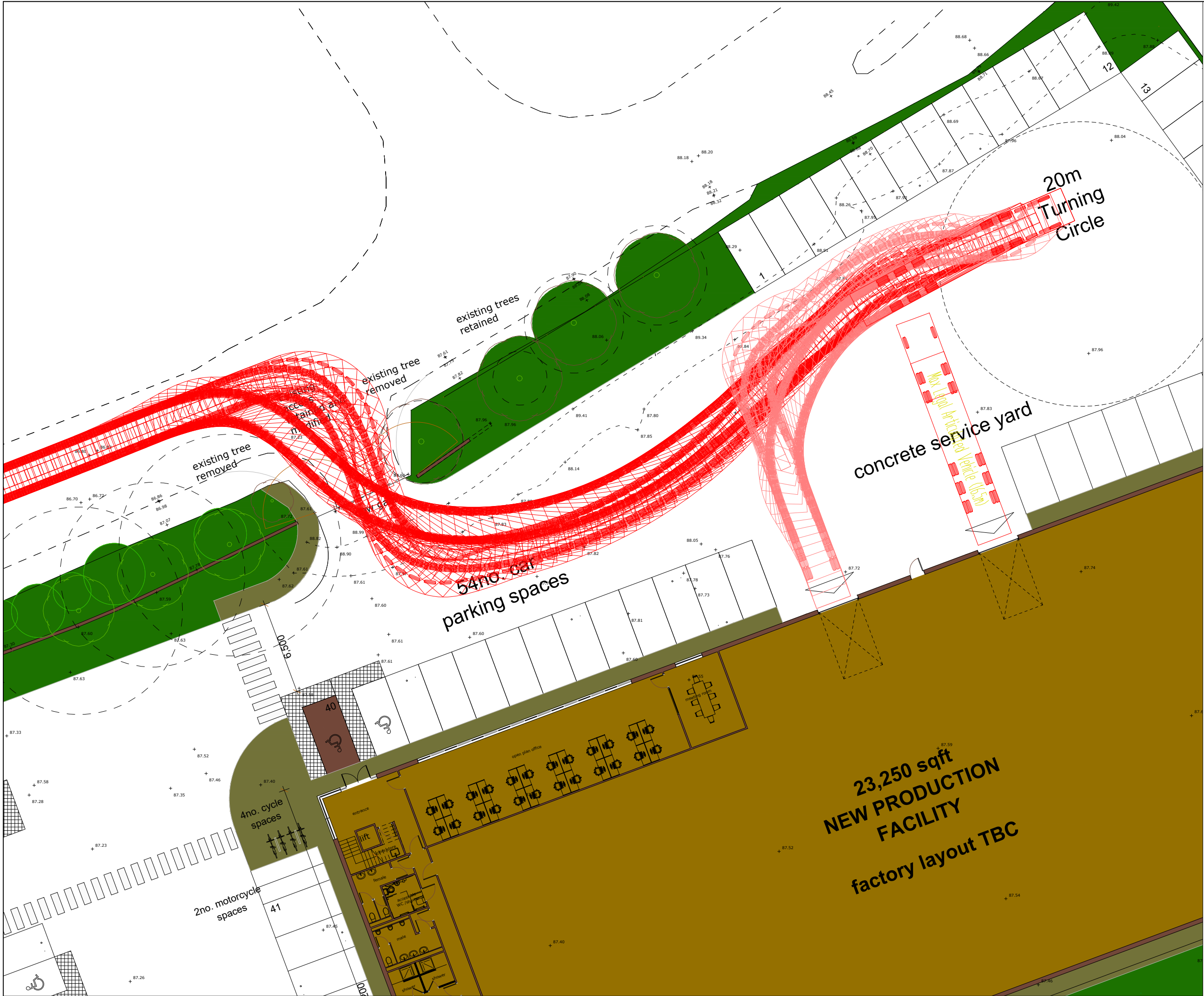
project: new facility
Hanson Close Middleton

sheet: proposed site layout

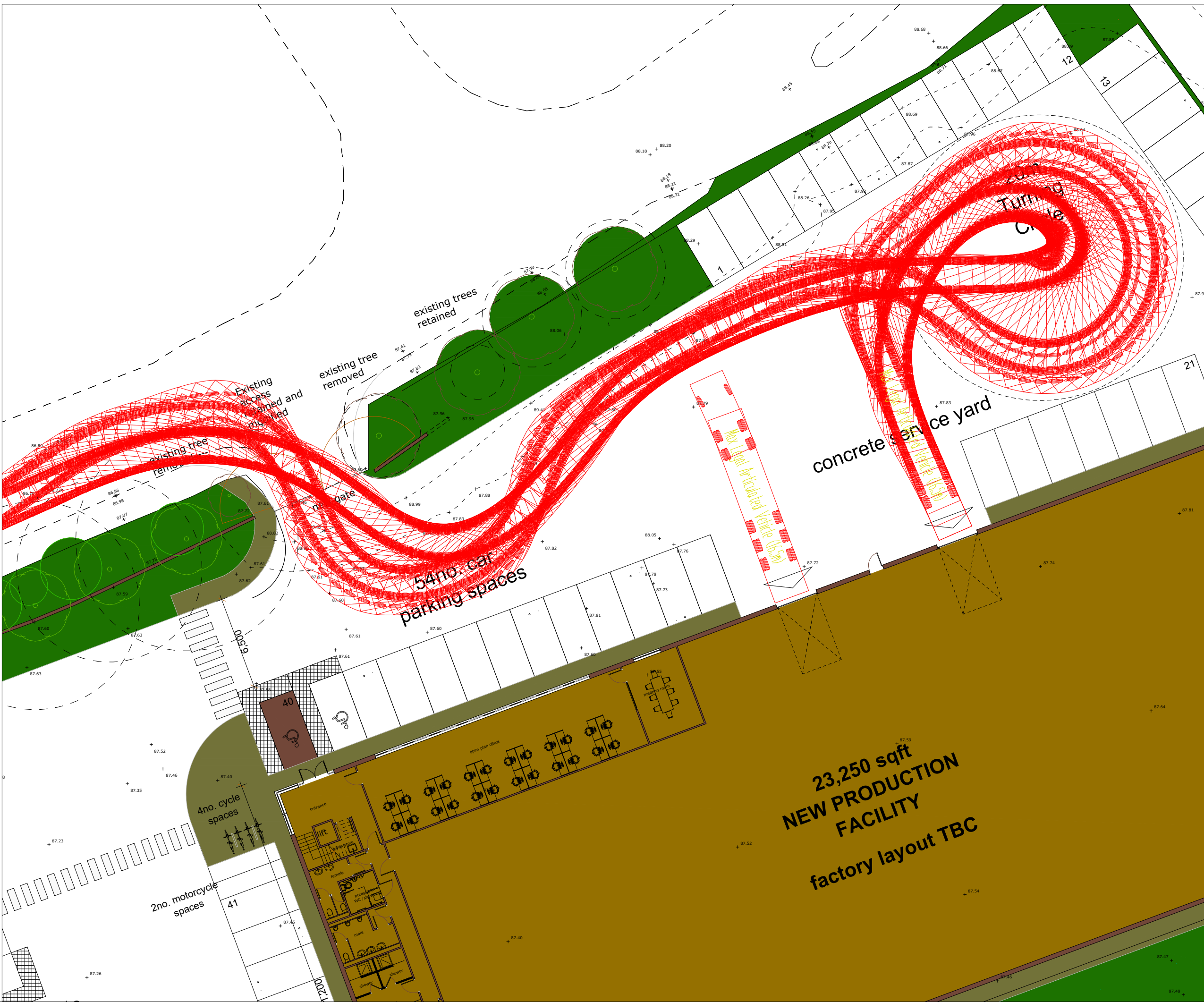
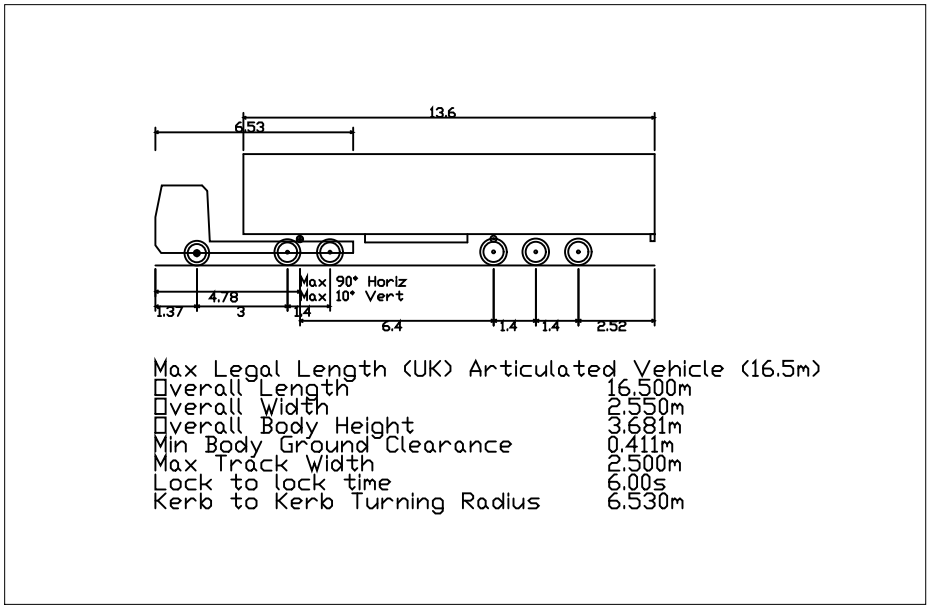
drawing no: 22.135_01_002_D

scale: @ A1

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



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- The consultant accepts no liability for any vehicle specification errors within the vehicle track software used and / or its vehicle libraries.
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- Service connections are not shown but their presence should be anticipated.
- Reference to any third party equipment shown on this drawing was only relevant at the time the drawing was prepared.
- It is the client's responsibility to ensure that any equipment ordered meets the design.



Rev	Amendment	Drawn	Date	Checked



Highways | Traffic | Transportation | Water

T 01924 844080 mail@sandersonassociates.co.uk
F 01924 844081 www.sandersonassociates.co.uk

Client

Middleton Sheet Metal Co. Ltd

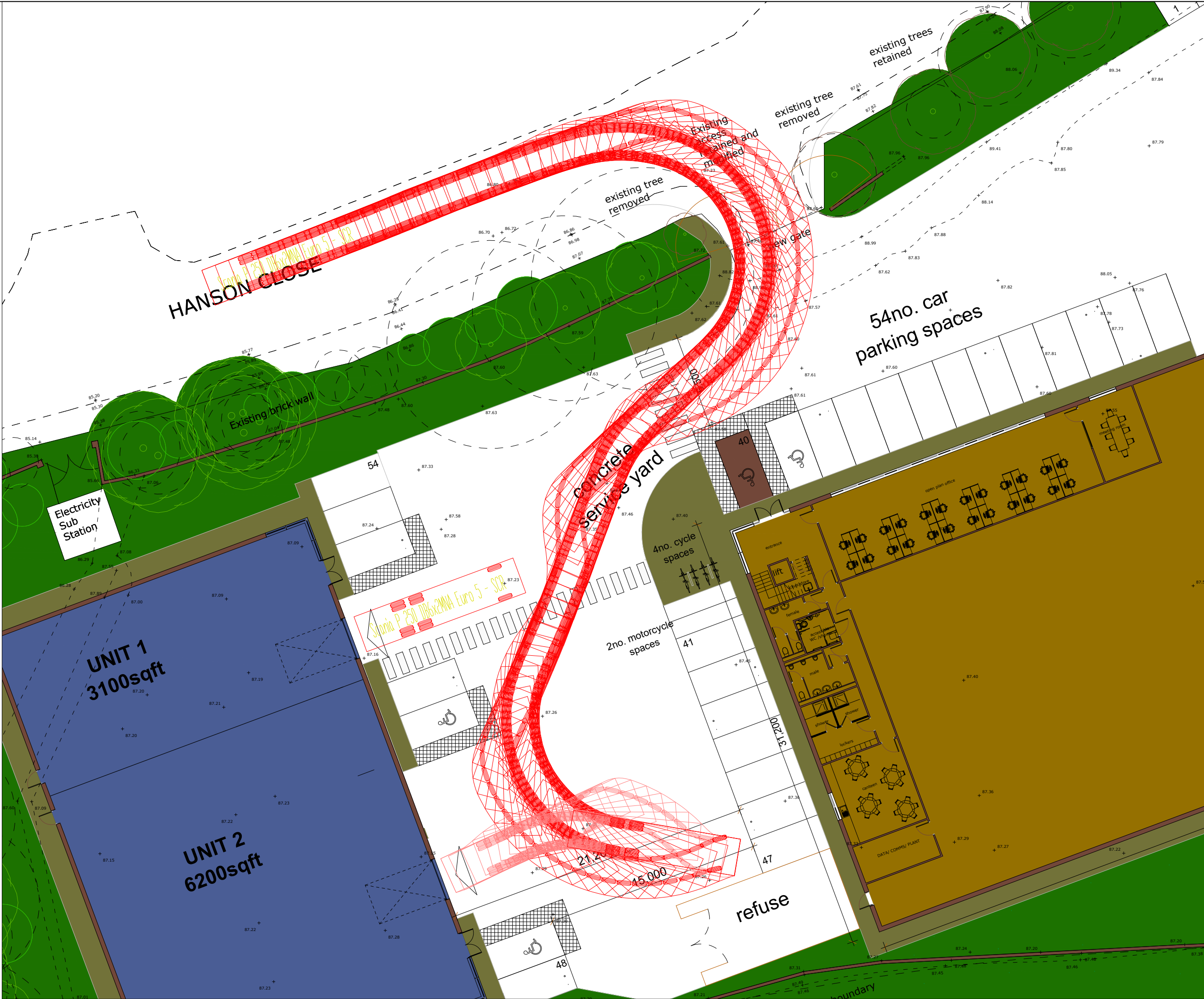
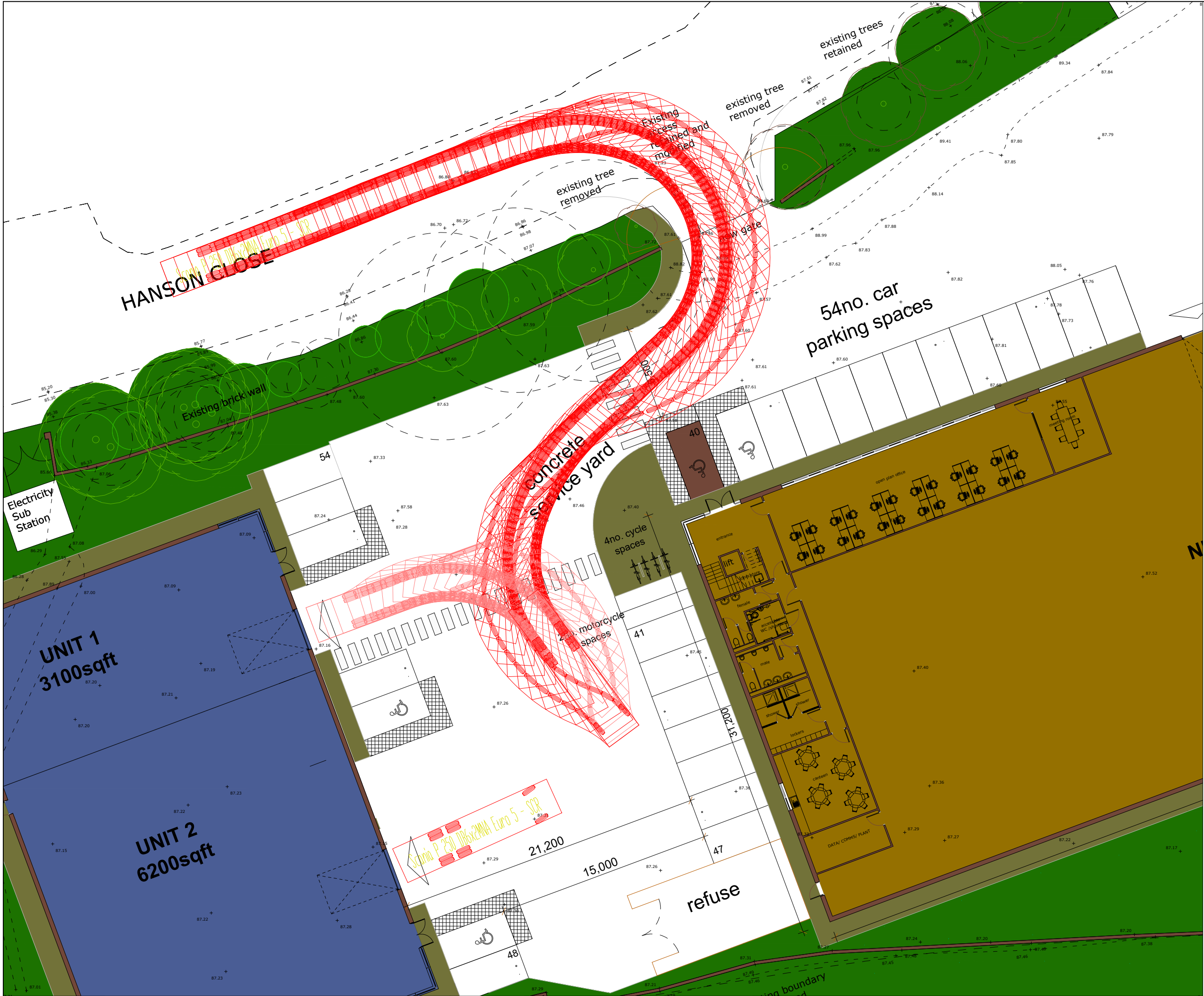
Project Title

Hanson Close, Middleton

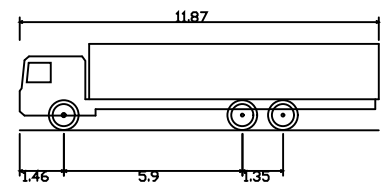
Drawing Title

Swept Path Analysis of Main Unit

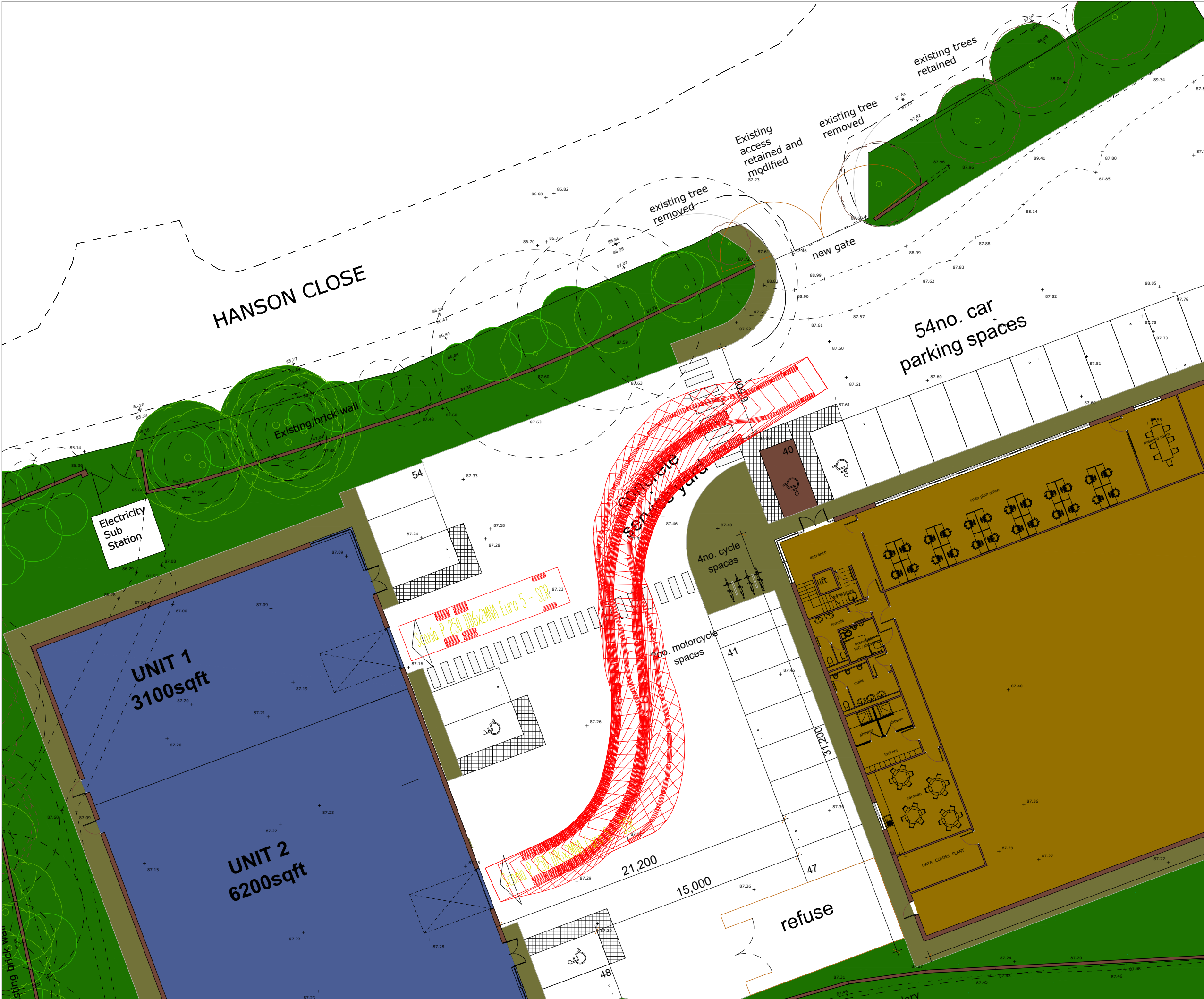
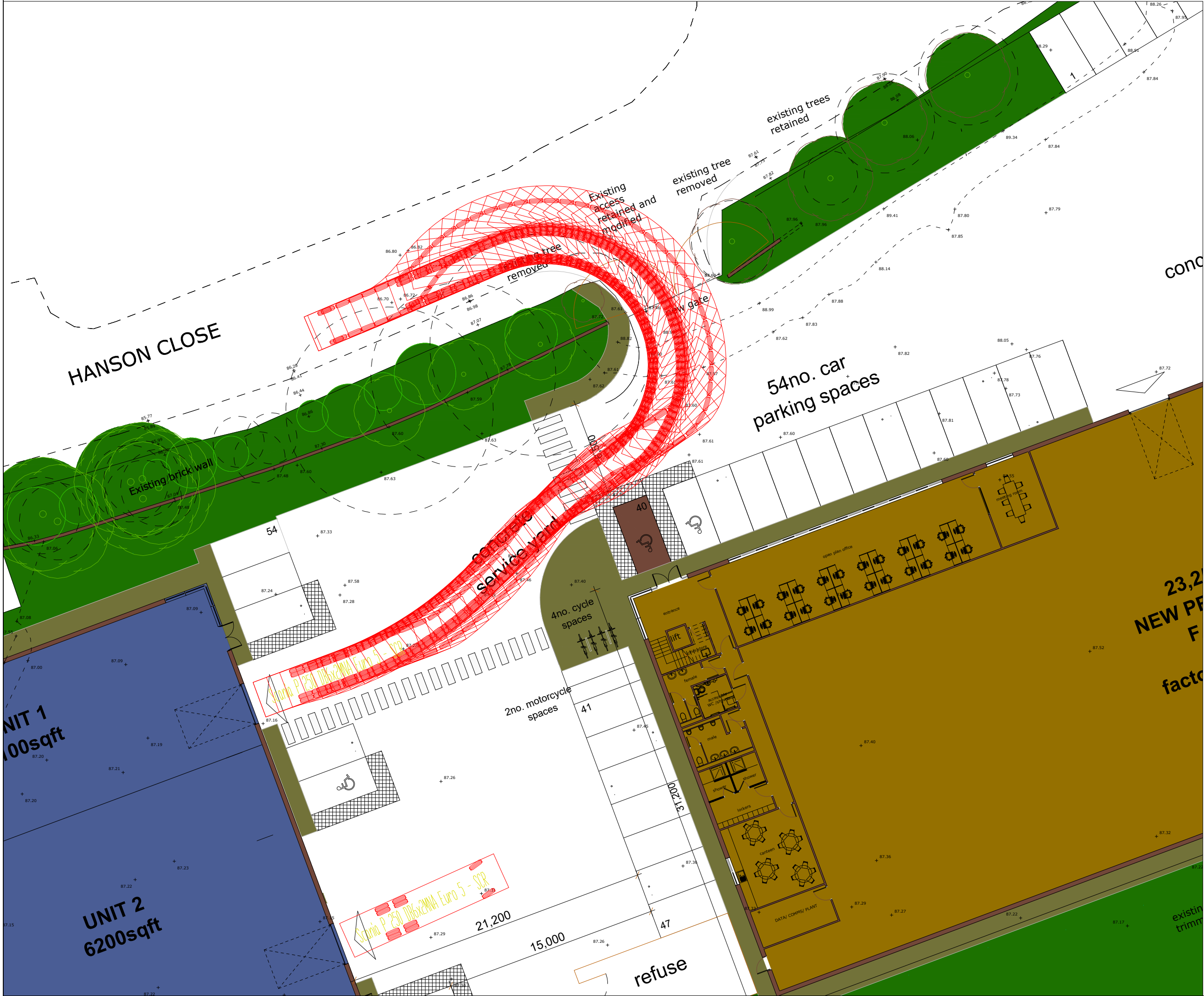
Scale	1:250	Drawn By	AA
Drawing Size	A1	Checked By	DJC
Date	16/11/2022	Approved By	DJC
Drawing Number		Rev	
301335-001			



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- The consultant shall not be liable for the use by any person of any document for any purpose other than that for which the same were provided by the consultant.
- No liability whatsoever is accepted by the consultant for any error or omissions.
- The consultant accepts no liability for any vehicle specification errors within the vehicle track software used and / or its vehicle libraries.
- The locations of utilities apparatus, if shown, is reproduced from plans supplied to the consultant, although care has been taken when duplicating this information. These locations are approximate only and no guarantee can be given for their accuracy. It is the client's or it's appointed agent/contractors responsibility to verify the exact locations on site by hand dug trial holes or other appropriate means prior to mechanical excavation.
- Service connections are not shown but their presence should be anticipated.
- Reference to any third party equipment shown on this drawing was only relevant at the time the drawing was prepared.
- It is the client's responsibility to ensure that any equipment ordered meets the design.



Scania P 250 DB6x2MNA Euro 5 - 132
Overall Length 11.870m
Overall Width 2.550m
Min Body Ground Clearance 0.45m
Track Width 2.490m
Lock to lock time 3.05s
Kerb to Kerb Turning Radius 11.750m



Rev	Amendment	Drawn	Date	Checked

sanderson
associates
consulting engineers
Highways | Traffic | Transportation | Water
T 01924 844080 mail@sandersonassociates.co.uk
F 01924 844081 www.sandersonassociates.co.uk

Client
Middleton Sheet Metal Co. Ltd

Project Title
Hanson Close, Middleton

Drawing Title
Swept Path Analysis of
Units 1 and 2

Scale	1:250	Drawn By	AA
Drawing Size	A1	Checked By	DJC
Date	16/11/2022	Approved By	DJC
Drawing Number		Rev	
301335-002			



Appendix C

Multi Modal TRICS Data

Calculation Reference: AUDIT-109307-221021-1001

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

03	SOUTH WEST	
	BR BRISTOL CITY	1 days
	DV DEVON	1 days
04	EAST ANGLIA	
	NF NORFOLK	1 days
06	WEST MIDLANDS	
	HE HEREFORDSHIRE	1 days
	WM WEST MIDLANDS	1 days

Primary Filtering selection:

Parameter: Gross floor area
 Actual Range: 690 to 5070 (units: sqm)
 Range Selected by User: 690 to 7000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/09 to 14/11/19

Selected survey days:

Monday	1 days
Tuesday	2 days
Thursday	2 days

Selected survey types:

Manual count	5 days
Directional ATC Count	0 days

Selected Locations:

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

Selected Location Sub Categories:

Industrial Zone	4
Commercial Zone	1

Secondary Filtering selection:

Use Class:

Not Known	5 days
-----------	--------

Filter by Site Operations Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

Population within 1 mile:

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

Secondary Filtering selection (Cont.):

Population within 5 miles:

50,001 to 75,000	1 days
125,001 to 250,000	3 days
250,001 to 500,000	1 days

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	3 days

Travel Plan:

No	5 days
----	--------

PTAL Rating:

No PTAL Present	5 days
-----------------	--------

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

MULTI-MODAL TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Total People to Total Vehicles ratio (all time periods and directions): 1.33

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	2451	0.196	5	2451	0.049	5	2451	0.245
08:00 - 09:00	5	2451	0.367	5	2451	0.147	5	2451	0.514
09:00 - 10:00	5	2451	0.351	5	2451	0.171	5	2451	0.522
10:00 - 11:00	5	2451	0.122	5	2451	0.114	5	2451	0.236
11:00 - 12:00	5	2451	0.155	5	2451	0.147	5	2451	0.302
12:00 - 13:00	5	2451	0.204	5	2451	0.237	5	2451	0.441
13:00 - 14:00	5	2451	0.180	5	2451	0.163	5	2451	0.343
14:00 - 15:00	5	2451	0.090	5	2451	0.065	5	2451	0.155
15:00 - 16:00	5	2451	0.131	5	2451	0.155	5	2451	0.286
16:00 - 17:00	5	2451	0.073	5	2451	0.384	5	2451	0.457
17:00 - 18:00	5	2451	0.024	5	2451	0.261	5	2451	0.285
18:00 - 19:00	5	2451	0.041	5	2451	0.114	5	2451	0.155
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.934			2.007			3.941

Parameter summary

Trip rate parameter range selected: 690 - 5070 (units: sqm)
 Survey date range: 01/01/09 - 14/11/19
 Number of weekdays (Monday-Friday): 5
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 1
 Surveys manually removed from selection: 1

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

MULTI-MODAL CYCLISTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	2451	0.000	5	2451	0.000	5	2451	0.000
08:00 - 09:00	5	2451	0.008	5	2451	0.008	5	2451	0.016
09:00 - 10:00	5	2451	0.000	5	2451	0.000	5	2451	0.000
10:00 - 11:00	5	2451	0.000	5	2451	0.000	5	2451	0.000
11:00 - 12:00	5	2451	0.000	5	2451	0.000	5	2451	0.000
12:00 - 13:00	5	2451	0.000	5	2451	0.000	5	2451	0.000
13:00 - 14:00	5	2451	0.000	5	2451	0.000	5	2451	0.000
14:00 - 15:00	5	2451	0.000	5	2451	0.000	5	2451	0.000
15:00 - 16:00	5	2451	0.000	5	2451	0.000	5	2451	0.000
16:00 - 17:00	5	2451	0.000	5	2451	0.008	5	2451	0.008
17:00 - 18:00	5	2451	0.000	5	2451	0.000	5	2451	0.000
18:00 - 19:00	5	2451	0.000	5	2451	0.008	5	2451	0.008
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.008			0.024			0.032

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

MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	2451	0.237	5	2451	0.049	5	2451	0.286
08:00 - 09:00	5	2451	0.424	5	2451	0.155	5	2451	0.579
09:00 - 10:00	5	2451	0.482	5	2451	0.229	5	2451	0.711
10:00 - 11:00	5	2451	0.147	5	2451	0.122	5	2451	0.269
11:00 - 12:00	5	2451	0.204	5	2451	0.196	5	2451	0.400
12:00 - 13:00	5	2451	0.351	5	2451	0.351	5	2451	0.702
13:00 - 14:00	5	2451	0.220	5	2451	0.204	5	2451	0.424
14:00 - 15:00	5	2451	0.106	5	2451	0.082	5	2451	0.188
15:00 - 16:00	5	2451	0.171	5	2451	0.245	5	2451	0.416
16:00 - 17:00	5	2451	0.098	5	2451	0.514	5	2451	0.612
17:00 - 18:00	5	2451	0.024	5	2451	0.286	5	2451	0.310
18:00 - 19:00	5	2451	0.057	5	2451	0.114	5	2451	0.171
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.521			2.547			5.068

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

MULTI-MODAL PEDESTRIANS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	2451	0.016	5	2451	0.008	5	2451	0.024
08:00 - 09:00	5	2451	0.008	5	2451	0.000	5	2451	0.008
09:00 - 10:00	5	2451	0.000	5	2451	0.000	5	2451	0.000
10:00 - 11:00	5	2451	0.000	5	2451	0.008	5	2451	0.008
11:00 - 12:00	5	2451	0.000	5	2451	0.000	5	2451	0.000
12:00 - 13:00	5	2451	0.008	5	2451	0.016	5	2451	0.024
13:00 - 14:00	5	2451	0.016	5	2451	0.016	5	2451	0.032
14:00 - 15:00	5	2451	0.000	5	2451	0.000	5	2451	0.000
15:00 - 16:00	5	2451	0.000	5	2451	0.000	5	2451	0.000
16:00 - 17:00	5	2451	0.000	5	2451	0.008	5	2451	0.008
17:00 - 18:00	5	2451	0.000	5	2451	0.008	5	2451	0.008
18:00 - 19:00	5	2451	0.000	5	2451	0.000	5	2451	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.048			0.064			0.112

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

MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	2451	0.000	5	2451	0.000	5	2451	0.000
08:00 - 09:00	5	2451	0.000	5	2451	0.000	5	2451	0.000
09:00 - 10:00	5	2451	0.000	5	2451	0.000	5	2451	0.000
10:00 - 11:00	5	2451	0.000	5	2451	0.000	5	2451	0.000
11:00 - 12:00	5	2451	0.000	5	2451	0.000	5	2451	0.000
12:00 - 13:00	5	2451	0.000	5	2451	0.000	5	2451	0.000
13:00 - 14:00	5	2451	0.000	5	2451	0.000	5	2451	0.000
14:00 - 15:00	5	2451	0.000	5	2451	0.000	5	2451	0.000
15:00 - 16:00	5	2451	0.000	5	2451	0.000	5	2451	0.000
16:00 - 17:00	5	2451	0.000	5	2451	0.000	5	2451	0.000
17:00 - 18:00	5	2451	0.000	5	2451	0.008	5	2451	0.008
18:00 - 19:00	5	2451	0.000	5	2451	0.000	5	2451	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.000			0.008			0.008

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

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Total People to Total Vehicles ratio (all time periods and directions): 1.33

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	2451	0.253	5	2451	0.057	5	2451	0.310
08:00 - 09:00	5	2451	0.441	5	2451	0.163	5	2451	0.604
09:00 - 10:00	5	2451	0.482	5	2451	0.229	5	2451	0.711
10:00 - 11:00	5	2451	0.147	5	2451	0.131	5	2451	0.278
11:00 - 12:00	5	2451	0.204	5	2451	0.196	5	2451	0.400
12:00 - 13:00	5	2451	0.359	5	2451	0.367	5	2451	0.726
13:00 - 14:00	5	2451	0.237	5	2451	0.220	5	2451	0.457
14:00 - 15:00	5	2451	0.106	5	2451	0.082	5	2451	0.188
15:00 - 16:00	5	2451	0.171	5	2451	0.245	5	2451	0.416
16:00 - 17:00	5	2451	0.098	5	2451	0.530	5	2451	0.628
17:00 - 18:00	5	2451	0.024	5	2451	0.302	5	2451	0.326
18:00 - 19:00	5	2451	0.057	5	2451	0.122	5	2451	0.179
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.579			2.644			5.223



Appendix D

Vehicular TRICS Data

Calculation Reference: AUDIT-109307-221116-1100

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST	
	BO BEDFORD	1 days
	HC HAMPSHIRE	1 days
03	SOUTH WEST	
	BR BRISTOL CITY	1 days
	DV DEVON	1 days
	GS GLOUCESTERSHIRE	1 days
05	EAST MIDLANDS	
	DY DERBY	1 days
06	WEST MIDLANDS	
	WK WARWICKSHIRE	1 days
	WM WEST MIDLANDS	1 days
08	NORTH WEST	
	AC CHESHIRE WEST & CHESTER	1 days
	BP BLACKPOOL	1 days
	EC CHESHIRE EAST	2 days
09	NORTH	
	CB CUMBRIA	1 days
	TV TEES VALLEY	1 days
10	WALES	
	VG VALE OF GLAMORGAN	1 days
11	SCOTLAND	
	SR STIRLING	1 days

Primary Filtering selection:

Parameter: Gross floor area
 Actual Range: 1010 to 9216 (units: sqm)
 Range Selected by User: 1000 to 9500 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 10/11/21

Selected survey days:

Monday	2 days
Tuesday	3 days
Wednesday	2 days
Thursday	6 days
Friday	3 days

Selected survey types:

Manual count	16 days
Directional ATC Count	0 days

Selected Locations:

Suburban Area (PPS6 Out of Centre)	4
Edge of Town	12

Selected Location Sub Categories:

Industrial Zone	15
Development Zone	1

Secondary Filtering selection:

Use Class:

Not Known 16 days

Filter by Site Operations Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

Population within 1 mile:

5,001 to 10,000	4 days
10,001 to 15,000	6 days
15,001 to 20,000	1 days
20,001 to 25,000	2 days
25,001 to 50,000	3 days

Population within 5 miles:

5,001 to 25,000	1 days
50,001 to 75,000	1 days
75,001 to 100,000	3 days
100,001 to 125,000	2 days
125,001 to 250,000	6 days
250,001 to 500,000	3 days

Car ownership within 5 miles:

0.6 to 1.0	4 days
1.1 to 1.5	12 days

Travel Plan:

No 16 days

PTAL Rating:

No PTAL Present 16 days

Covid-19 Restrictions

Yes

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

LIST OF SITES relevant to selection parameters

1	AC-02-C-02	INDUSTRIAL MATERIALS	CHESHIRE WEST & CHESTER
	JUPITER DRIVE		
	CHESTER		
	CHESTER W. EMP. PARK		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	8100 sqm	
	Survey date: WEDNESDAY	19/11/14	Survey Type: MANUAL
2	BO-02-C-01	PUMPS, MOTORS & FANS	BEDFORD
	POSTLEY ROAD		
	BEDFORD		
	KEMPSTON		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	1045 sqm	
	Survey date: THURSDAY	15/10/20	Survey Type: MANUAL
3	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
4	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
5	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
6	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
7	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
8	EC-02-C-01	OFFICE FURNITURE	CHESHIRE EAST
	BRUNEL ROAD		
	MACCLESFIELD		
	LYME GREEN BUS. PARK		
	Edge of Town		
	Development Zone		
	Total Gross floor area:	6658 sqm	
	Survey date: MONDAY	19/09/16	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

9	EC-02-C-02 CHARTER WAY MACCLESFIELD HURDSFIELD Edge of Town Industrial Zone Total Gross floor area: 3200 sqm Survey date: FRIDAY 07/05/21	FABRICS MANUFACTURE	CHESHIRE EAST	Survey Type: MANUAL
10	GS-02-C-02 DAVY WAY GLOUCESTER HARDWICKE Edge of Town Industrial Zone Total Gross floor area: 1630 sqm Survey date: FRIDAY 23/04/21	MARINE ENGINE PRODUCTION	GLOUCESTERSHIRE	Survey Type: MANUAL
11	HC-02-C-01 JAYS CLOSE BASINGSTOKE Edge of Town Industrial Zone Total Gross floor area: 3000 sqm Survey date: THURSDAY 16/06/16	ENGINEERING COMPANY	HAMPSHIRE	Survey Type: MANUAL
12	SR-02-C-01 BORROWMEADOW ROAD STIRLING Edge of Town Industrial Zone Total Gross floor area: 2350 sqm Survey date: MONDAY 16/06/14	SPECIALIST MODEL MAKING	STIRLING	Survey Type: MANUAL
13	TV-02-C-02 PARKVIEW ROAD WEST HARTLEPOOL Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 1050 sqm Survey date: FRIDAY 04/09/20	FLUID ENGINEERING	TEES VALLEY	Survey Type: MANUAL
14	VG-02-C-01 VERLON CLOSE BARRY Edge of Town Industrial Zone Total Gross floor area: 1500 sqm Survey date: THURSDAY 06/05/21	ALCOHOL ANALYSIS PRODUCTS	VALE OF GLAMORGAN	Survey Type: MANUAL
15	WK-02-C-01 CASTLE MOUND WAY RUGBY Edge of Town Industrial Zone Total Gross floor area: 9216 sqm Survey date: WEDNESDAY 10/11/21	MACHINE ENGINEERING	WARWICKSHIRE	Survey Type: MANUAL
16	WM-02-C-04 STOURVALE ROAD STOURBRIDGE LYE Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 4324 sqm Survey date: TUESDAY 21/11/17	FOUNDRY	WEST MIDLANDS	Survey Type: MANUAL

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	5	3387	0.083	5	3387	0.000	5	3387	0.083
06:00 - 07:00	7	2988	0.105	7	2988	0.019	7	2988	0.124
07:00 - 08:00	16	3290	0.357	16	3290	0.051	16	3290	0.408
08:00 - 09:00	16	3290	0.393	16	3290	0.061	16	3290	0.454
09:00 - 10:00	16	3290	0.207	16	3290	0.142	16	3290	0.349
10:00 - 11:00	16	3290	0.156	16	3290	0.123	16	3290	0.279
11:00 - 12:00	16	3290	0.095	16	3290	0.125	16	3290	0.220
12:00 - 13:00	16	3290	0.167	16	3290	0.186	16	3290	0.353
13:00 - 14:00	16	3290	0.173	16	3290	0.203	16	3290	0.376
14:00 - 15:00	16	3290	0.099	16	3290	0.131	16	3290	0.230
15:00 - 16:00	16	3290	0.068	16	3290	0.180	16	3290	0.248
16:00 - 17:00	16	3290	0.051	16	3290	0.275	16	3290	0.326
17:00 - 18:00	16	3290	0.028	16	3290	0.310	16	3290	0.338
18:00 - 19:00	16	3290	0.027	16	3290	0.125	16	3290	0.152
19:00 - 20:00	5	3387	0.047	5	3387	0.059	5	3387	0.106
20:00 - 21:00	5	3387	0.018	5	3387	0.035	5	3387	0.053
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.074			2.025			4.099

Parameter summary

Trip rate parameter range selected:

1010 - 9216 (units: sqm)

Survey date date range:

01/01/14 - 10/11/21

Number of weekdays (Monday-Friday):

16

Number of Saturdays:

0

Number of Sundays:

0

Surveys automatically removed from selection:

0

Surveys manually removed from selection:

0



FAIRHURST



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



01924 844080



mail@sandersonassociates.co.uk



www.sandersonassociates.co.uk

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