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TRANSPORT & INFRASTRUCTURE PLANNING

Frank Shaw Associates Ltd

Proposed Deighton SEMH School

Huddersfield

Transport Assessment

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1. INTRODUCTION

1.1 BWB Consulting Limited (BWB) has been appointed by Frank Shaw Associates Limited ("the Applicant") to produce this Transport Assessment (TA) report to support a planning application for an educational development site on the land to the north of the Deighton Road ("the Site").

1.2 The proposed development comprises a new Special Educational Mental Health (SEMH) School to cater for up to 132 pupils. Access is proposed from the Deighton Road. The proposed Site Layout Plan is included in Appendix 1 for reference.

1.3 The SEMH school will provide purpose-built facilities and the intake will comprise the relocation of SEMH pupils from the existing Joseph Norton Academy SEMH in Scissett, plus new pupils from the surrounding area.

1.4 The local planning and highway authority is Kirklees Council (KC).

Report Structure

1.5 Following this introductory section, the TA is structured as follows:

- **Section 2:** Policy Context – summarises the key national and local planning policies relating to transport within the context of the scale and location of the proposed development;
- **Section 3:** Existing Conditions – describes the local highway network, sustainable infrastructure and review of existing road safety and traffic conditions;
- **Section 4:** Sustainable Travel Accessibility – details the existing walking, cycling and public transport infrastructure;
- **Section 5:** Development Proposals – provides details of the proposed development and access arrangements, including review of parking provision and site servicing;
- **Section 6:** Traffic Impact of the Development – determines the traffic impact of the proposals;
- **Section 7:** Summary and Conclusions – provides a summary and sets out the conclusions.

2. TRANSPORT POLICY & GUIDANCE

Introduction

2.1 This section details the current transport planning policy context within which the development proposal has been considered. It highlights integrated transport planning policies at the national and local level, including:

- National Planning Policy Framework (March 2012, Revised July 2021)
- Kirklees Local Plan (February 2019)

National Planning Policy

National Planning Policy Framework (March 2012, Revised July 2021)

2.2 The Government's National Planning Policy Framework (NPPF) replaced the majority of previous Planning Policy Statements (PPS) and Planning Policy Guidance Notes (PPG) documents on 27 March 2012 and was updated in July 2021. It sets out the Government's expectations and requirements from the planning system. It provides guidance for local councils to use when defining their own personal local and neighbourhood plans. This approach allows the planning system to be customised to reflect the needs and priorities of individual communities.

2.3 The NPPF defines the delivery of sustainable development through three roles:

- an economic objective;
- a social objective; and
- an environmental objective.

2.4 These objectives should be delivered through the preparation and implementation of plans and the application of the policies in this Framework; they are not criteria against which every decision can or should be judged. Planning policies and decisions should play an active role in guiding development towards sustainable solutions, but in doing so should take local circumstances into account, to reflect the character, needs and opportunities of each area.

2.5 The NPPF states that Transport issues should be considered from the earliest stages of plan-making and development proposals, so that:

- The potential impacts of development on transport networks can be addressed;
- Opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;

- Opportunities to promote walking, cycling and public transport use are identified and pursued;

- The environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and

- Patterns of movement, streets, parking and other transport considerations are integral to the design of schemes and contribute to making high quality places.

2.6 Paragraph 105 states that, "Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making."

2.7 The NPPF requires planning policies to:

- Support an appropriate mix of uses across an area, and within larger scale sites, to minimise the number and length of journeys needed for employment, shopping, leisure, education and other activities;

- Be prepared with the active involvement of local highways authorities, other transport infrastructure providers and operators and neighbouring councils, so that strategies and investments for supporting sustainable transport and development patterns are aligned;

- Identify and protect, where there is robust evidence, sites and routes which could be critical in developing infrastructure to widen transport choice and realise opportunities for large scale development;

- Provide for high quality walking and cycling networks and supporting facilities such as cycle parking (drawing on Local Cycling and Walking Infrastructure Plans); and

- Provide for any large-scale transport facilities that need to be located in the area, and the infrastructure and wider development required to support their operation, expansion and contribution to the wider economy.

2.8 In assessing sites that may be allocated for development in plans, or specific applications for development, NPPF paragraph 110 states that it should be ensured that:

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

- Safe and suitable access to the site can be achieved for all users; and

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

2.9 Paragraph 111 of the NPPF goes on to state that Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.

2.10 Within the context of the NPPF, paragraph 112 sets out that development should:

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

- Address the needs of people with disabilities and reduced mobility in relation to all modes of transport;

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

- Allow for the efficient delivery of goods, and access by service and emergency vehicles; and

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

2.11 Paragraph 113 seeks to ensure that, "All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed."

Local Planning Policy

Kirklees Local Plan (February 2019)

2.12 The current statutory development plans for determining planning applications within Huddersfield is the Kirklees Local Plan Strategy and Policies, which was adopted in February 2019. The Local Plan runs from the period of 2013 to 2031. Policy LP20 of the Kirklees Local Plan refers to sustainable travel.

- 'New development will be located in accordance with the spatial development strategy to ensure the need to travel is reduced and that essential travel needs can be met by forms of sustainable transport other than the private car. The council will support development proposals that can be served by alternative modes of transport such as public transport, cycling and walking and in the case of new residential development is located close to local facilities or incorporates opportunities for day to day activities on site and will accept that variations in opportunity for this will vary between larger and smaller settlements in the area.'

- 'The council will support demand management measures which discourage single occupancy car travel within new development and encourage the use of low emission vehicles to improve areas with low levels of air quality. Proposals should include measures to encourage the use of sustainable travel options, including public transport, the promotion of personal journey planning, walking, cycling, car sharing, electronic communication and home working.'

- 'Travel plans will normally be required for all major planning applications in accordance with current guidance and should set targets and monitoring arrangements to ensure sustainable travel patterns are maintained. Travel plans should include agreed and defined outcomes related to a package of specified measures to be implemented including an approach to lower carbon emissions where applicable.'

- 'The requirement of a travel plan will also be considered on case-by-case basis where the proposed development falls below the major application category where it has the potential to generate significant transport movements and/or has insufficient off-street parking within the vicinity of a stressed part of the highway network.'

- 'Proposals for new development shall be designed to encourage sustainable modes of travel and demonstrate how links have been utilised to encourage connectivity. Proposals will be required to facilitate the needs of the following user hierarchy:

    a. *pedestrians*
    b. *cyclists*
    c. *public transport*
    d. *private vehicles'*

Summary

2.13 The contents of this report aim to demonstrate that the above criteria relating to access and highway safety have been considered to ensure that the development is acceptable in highways terms.

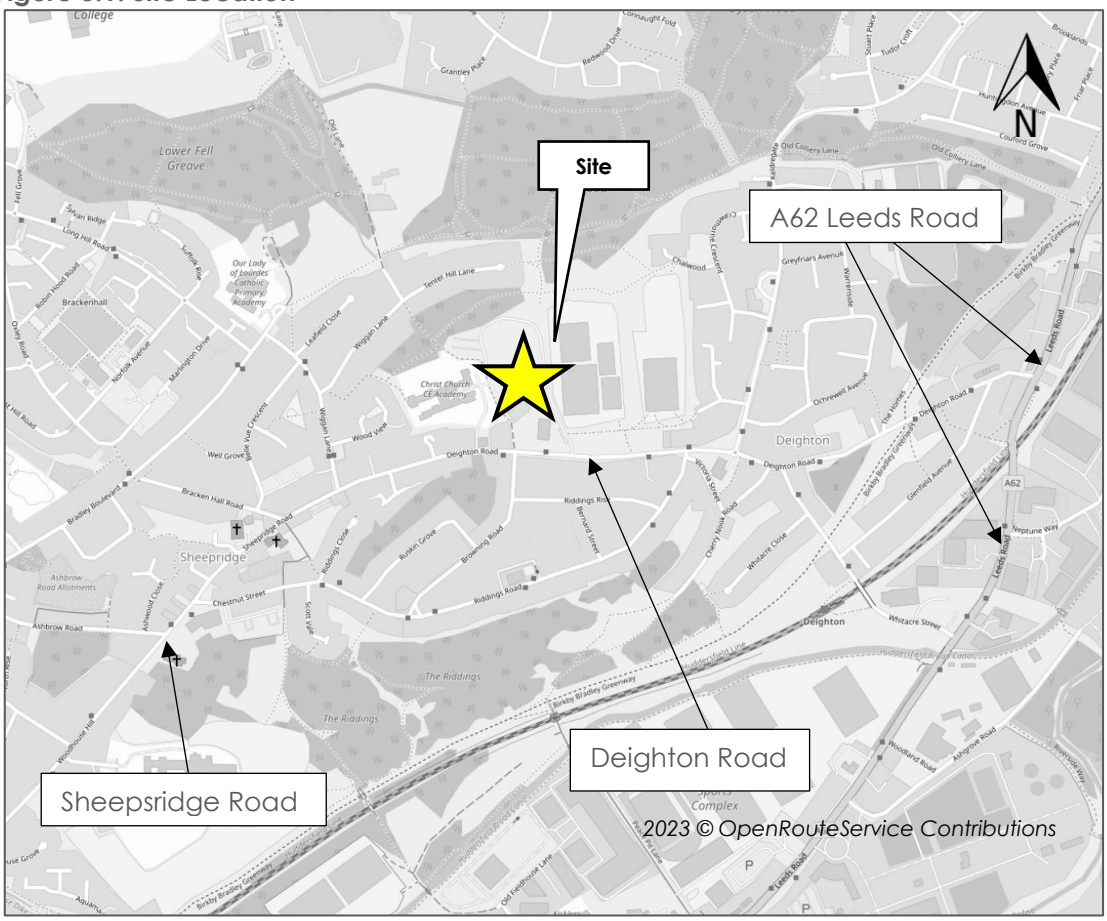
2.14 The parking provision, sustainable accessibility and highway capacity have also been assessed in line with these policies, where the masterplan has been designed to support sustainable accessibility for the development, including provision for pedestrians, cyclists and public transport users.

3. EXISTING CONDITIONS

Site Location

3.1 The Site is located in Deighton, approximately 3.9km northeast of Huddersfield. The indicative location of the Site in relation to the immediate area and the local highway network is shown in **Figure 3.1** below.

Figure 3.1. Site Location



Existing Site

3.2 The existing site was formerly occupied by the Deighton Centre, which was demolished in 2013 and is currently vacant land.

Local Highway Network

3.3 Deighton Road is a single carriageway road running between A62 Leeds Road to the east and Sheepridge Road to the west. It is approximately 7.5m wide along the site frontage and is subject to a 30mph speed limit. A footway is provided on both sides of carriageway along Deighton Road.

3.4 Approximately 850m to the east of the proposed site, Deighton Road connects with A62 Leeds Road at a priority T-junction. A62 Leeds Road runs between Mirfield and

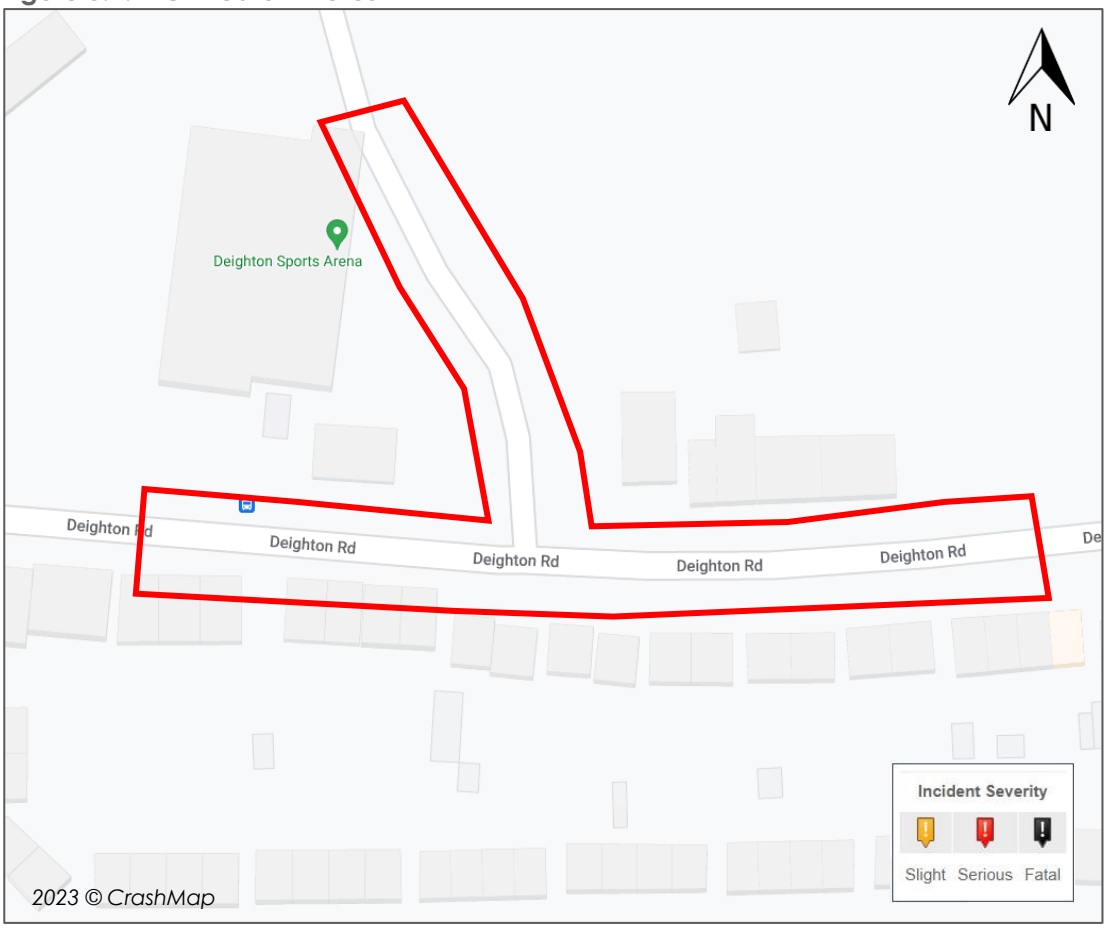
Huddersfield and is a main distributor road in Huddersfield. The A62 Leeds Road links to A644 to the north-east of the proposed site and to Southgate in Huddersfield City Centre.

Personal Injury Collisions

3.5 Personal Injury Collision (PIC) records for the local highway network have been obtained from Crashmap.co.uk for the latest available five-year period, which is 2017 to 2021 inclusive.

3.6 The study location consists of Deighton Road along the site frontage to the south of the existing site access. The PIC study area is illustrated in **Figure 3.2**.

Figure 3.2. PIC Area of Interest



3.7 As shown, a total of zero PICs occurred within the five-year period. No fatal PICs have been reported in the study area during this period. The above review suggests that due to the lack of recorded PICs that occurred within the study area, there are no issues associated with the highway network or layout.

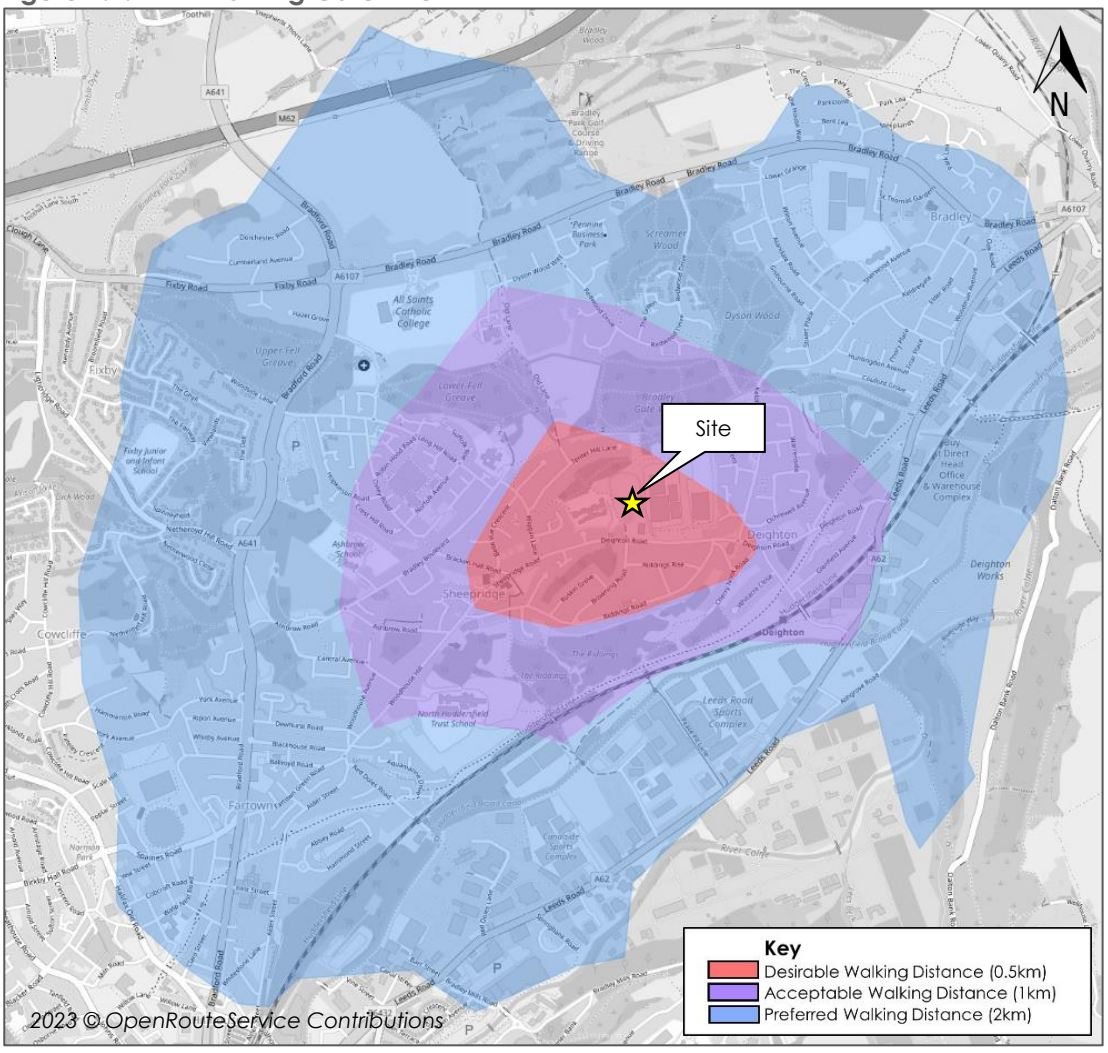
4. SUSTAINABLE TRAVEL ACCESSIBILITY

Pedestrian Accessibility

4.1 The Guidelines for Providing for Journeys on Foot (GPJF) document describes acceptable walking distances to new developments for pedestrians without mobility impairment. GPJF suggests that the 'preferred maximum' walking distance for commuting, and school journeys is 2km with 'acceptable' and 'desirable' walk distances of 1km and 500 metres respectively.

4.2 **Figure 4.1** identifies a 2km walking catchment from the Site.

Figure 4.1. 2km Walking Catchment



4.3 As shown, the entirety of Deighton is within 1km walking distance of the Site and Sheepridge, Bradley and Fartown are within 2km. As such, staff and pupils without mobility impairments living within these areas will have the opportunity to walk to and from the Site and will be supported by the sustainable travel measures proposed as part of this TP.

4.4 In the immediate vicinity of the Site there is a footway provided on both sides of Deighton Road.

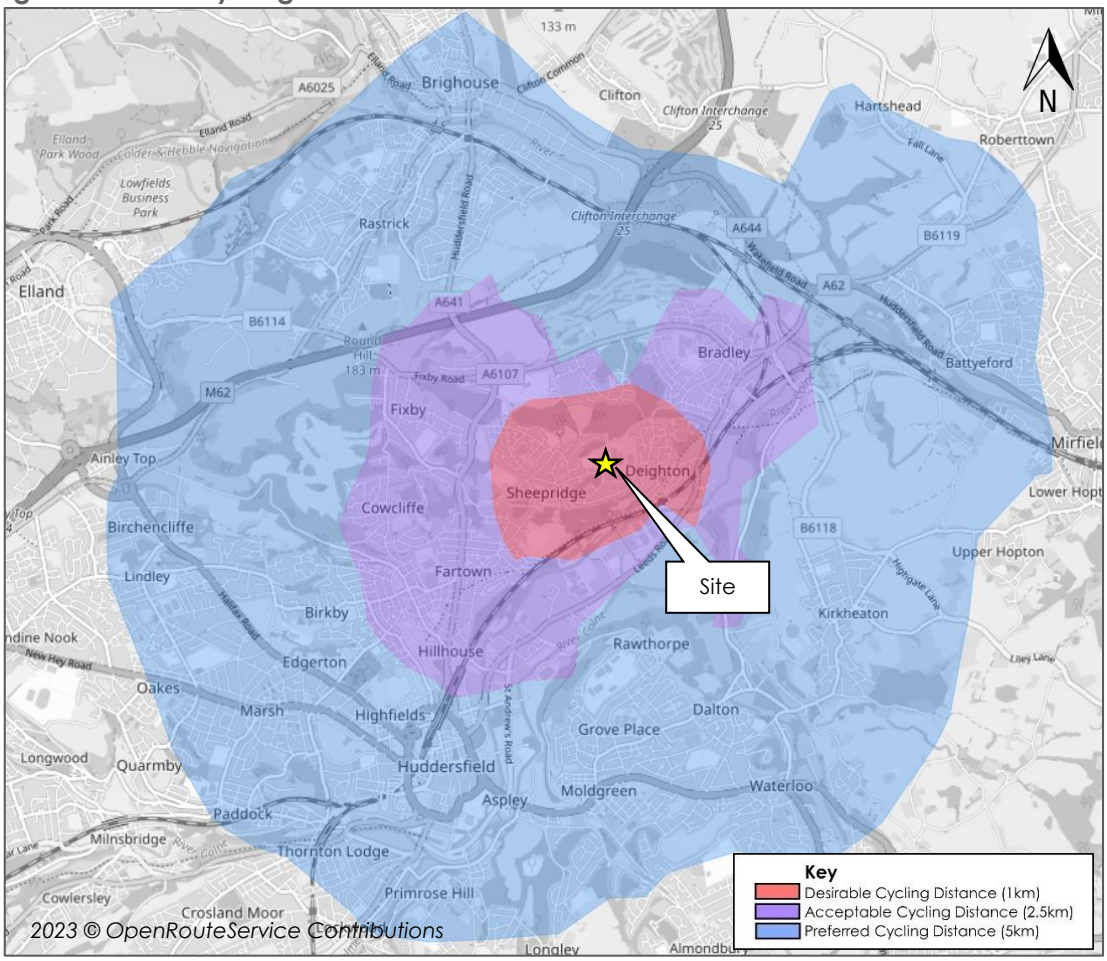
4.5 PRoW (no. HUD 37/40) runs across the northern boundary of the site, providing access from Crawthorne Crescent to PRoW (no. HUD 37/10) to the west of the proposed site and north of Christ Church CE Academy.

Cycling Accessibility

4.6 Local Transport Note (LTN) 1/04 states that there are limits to the distances generally considered acceptable for cycling. The mean average length for cycling is 4km (2.4 miles), although journeys of up to three times this distance are not uncommon for regular commuters. It is widely considered that cycling has the potential to substitute for short car trips, particularly those under 5km, and form part of a longer multi modal journey by public transport. Cycling is therefore an important journey to work mode that has the potential to substitute for short car journeys.

4.7 **Figure 4.2** shows a 5km cycling catchment from the Site.

Figure 4.2. 5km Cycling Catchment



4.8 As shown, several settlements are within cycling distance of the Site, including Deighton, Sheepridge, Huddersfield and Brighouse.

Public Transport Accessibility

Bus Services

4.9 In relation to bus accessibility, CIHT's 'Buses in Urban Developments, January 2018' publication, recommends that the maximum walking distance to 'single high-frequency routes (every 12 minutes or better)' should be 400m. For less frequent bus routes, the maximum recommended walking distance is 300m.

4.10 Two bus stops are located on Deighton Road close to the proposed access to Deighton SEMH School, approximately 40m (westbound) and 120m (eastbound) walking distance from the proposed access. These stops provide access to the B10 and K60 eastbound and westbound services.

4.11 **Table 4.1** below summaries the frequencies of the services available from the Deighton Road stops.

Table 4.1. Deighton Road Bus Service Frequencies

Service Number	Route	Eastbound Frequency Monday to Friday	Westbound Frequency Monday to Friday
B10	Huddersfield - Rastrick	08:09 (Only runs on Mondays and Fridays)	-
K60	Huddersfield – All Saints College	08:13 (Term time only)	-

Source: https://www.bustimes.org

4.12 As shown, the Site is served by two bus services within the vicinity of the Site.

4.13 There are additional bus stops provide, which slightly exceeds a 400m walking distance of site, with #328 provided from Ridding Road, which is approximately 450m to the south-east of the proposed site and provides a service every 15 minutes to Huddersfield and Bradley.

Rail Services

4.14 Deighton train station is approximately 850m cycling distance (10 minutes) from the Site, which is within cycling distance for staff choosing to travel by train.

4.15 Deighton train station provides the following facilities for passengers:

- 4 secure cycle storage facilities;
- Public Wi-Fi;
- Ticket Machine;
- Step free access;

4.16 The train station provides a number of direct train services, of which the off-peak journey frequencies are highlighted in **Table 4.2** below.

Table 4.2. Deighton Train Station Services

Destination	Frequency			Approx. Journey Time
	Monday to Friday	Saturday	Sunday	
Leeds	1 per hour	1 per hour	1 per hour	40-50 mins
Huddersfield	1 per hour	1 per hour	1 per hour	5-10 mins

Source: https://www.northernrailway.co.uk/stations/deighton (accessed 24/04/2023)

4.17 **Table 4.2** shows there are least hourly weekday services to a number of key destinations locally at peak times. Deighton Station therefore provides an attractive option for 'train and cycle' journeys to/from the site.

5. PROPOSED DEVELOPMENT

Development Overview

5.1 The proposed development comprises a new SEMH school, which will cater for up to 132 pupils and 99 staff members.

5.2 As noted in the introduction, the proposed SEMH School in Deighton will include the relocation of existing SEMH pupils from Joseph Norton Academy (JNA) in Scissett. Therefore, to provide context regarding the operation of the proposed SEMH School, in the first instance it is important to understand the existing operations at the Scissett school.

5.3 Below is a list of key operational information from the JNA SEMH School and how this is intended to change (if at all) at the new Deighton SEMH School: -

- The existing total number of pupils is 63, this will increase to a total of 132 proposed pupils.
- The existing total number of staff members is 50, this will increase to a total of 99 proposed staff members.
- The school day typically runs from 09:00 to 14:30 and will be the same.
- The current and proposed staff working hours will be 07:00-18:30.

Vehicular Access & Servicing Arrangements

5.4 Vehicular and non-motorised user access to the development is proposed from Deighton Road at the location of the existing priority T-junction access to the Site which is located in an urban environment.

5.5 As such, the standards set out in Manual for Streets apply in this case, this recommends visibility splays of 2.4m x 43m in both directions. Drawing **DEI-BWB-GEN-XX-DR-TR-103** shows that the visibility splays in accordance with Manual for Streets.

5.6 Refuse vehicle collections and deliveries to the Site will be occur outside of the drop off and pick up times, typically before 8:00, between 9:30 and 13:30 and after 15:30.

Internal Layout and Swept Path Analysis

5.7 Drawing **DEI-BWB-GEN-XX-DR-TR-110** shows the swept path assessment of a Refuse Vehicle for the access junction onto Deighton Road and the internal site of the proposed SEMH School.

5.8 Drawing **DEI-BWB-GEN-XX-DR-TR-111** shows the swept path assessment of an Estate Car for the access junction onto Deighton Road and the internal site of the proposed SEMH School.

5.9 Drawing **DEI-BWB-GEN-XX-DR-TR-112** shows the swept path assessment of a Delivery Vehicle for the access junction onto Deighton Road and the internal site of the proposed SEMH School.

5.10 Drawing **DEI-BWB-GEN-XX-DR-TR-113** shows the swept path assessment of a School Tractor Van for the access junction onto Deighton Road and the internal site of the proposed SEMH School.

5.11 Drawing **DEI-BWB-GEN-XX-DR-TR-113** shows the swept path assessment of a Fire Tender Vehicle for the access junction onto Deighton Road and the internal site of the proposed SEMH School.

5.12 Drawing **DEI-BWB-GEN-XX-DR-TR-115** shows the swept path assessment of a School Mini-Bus for the access junction onto Deighton Road and the internal site of the proposed SEMH School. To represent the similar size of the mini bus provided at the school, a 3.5t Panel Van has been used.

Parking Provision

5.13 The proposal will provide a total of 111 car parking spaces available for staff and visitors to the site of which 6 car parking spaces will have Electric Vehicle Charge Points and 8 spaces will be allocated for blue badge holders.

5.14 Most staff travel by car primarily due to location of where they live, and the specialist nature of some roles means that employees are geographically dispersed.

5.15 To ensure that no overspill parking occurs as a result of the proposals, it is assumed that all staff will travel to work by car.

5.16 Therefore, of the 111 car parking provision 99 spaces has been provided at a rate of one space per full time equivalent staff member and the remaining 12 car parking spaces will be for visitors to Site which vary from day-to-day.

5.17 There will also be 6 mini-bus parking bays, with EV charging points available, 4 motorcycle parking spaces and 14 secure cycle parking spaces on site.

Pupil Drop-off/Pick-up Facilities

5.18 The pupil drop off/pick up facilities there will be layby outside the school building entrance which would accommodate approximately 12 cars.

5.19 In addition to this there will be sufficient internal queuing capacity for both car dropping off in the morning and picking up in the afternoon within the Site of 38 cars with a drop off/pick up area capacity of 12 cars, this equates to a total of 50 cars that can queue within the site.

6. TRAFFIC IMPACT OF THE DEVELOPMENT

Introduction

6.1 This section sets out the methodology used to estimate traffic generations associated with the proposed development.

6.2 To estimate the likely number of trips at the new SEMH school, a weeklong traffic survey has been carried out the existing JNA SEMH school, from which pupils will be relocating, to determine the traffic patterns and will inform the peak hours.

Traffic Survey Results

6.3 A week-long video traffic survey was carried out at the existing JNA SEMH school access between Friday 9th and Thursday 15th June 2023.

6.4 A copy of this traffic survey is provided in **Appendix 2** and a summary of the average weekday traffic generation is summarised in **Table 6.1** below. It shows the profile of arrivals and departures throughout the day and is also expressed in percentages.

Table 6.1: Existing Average Trip Generation

Time	Trips			Profile (%)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
00:00 - 00:15	0	0	0	0.0%	0.0%	0.0%
00:15 - 00:30	0	0	0	0.0%	0.0%	0.0%
00:30 - 00:45	0	0	0	0.0%	0.0%	0.0%
00:45 - 01:00	0	0	0	0.0%	0.0%	0.0%
01:00 - 01:15	0	0	0	0.0%	0.0%	0.0%
01:15 - 01:30	0	0	0	0.0%	0.0%	0.0%
01:30 - 01:45	0	0	0	0.0%	0.0%	0.0%
01:45 - 02:00	0	0	0	0.0%	0.0%	0.0%
02:00 - 02:15	0	0	0	0.0%	0.0%	0.0%
02:15 - 02:30	0	0	0	0.0%	0.0%	0.0%
02:30 - 02:45	0	0	0	0.0%	0.0%	0.0%
02:45 - 03:00	0	0	0	0.0%	0.0%	0.0%
03:00 - 03:15	0	0	0	0.0%	0.0%	0.0%
03:15 - 03:30	0	0	0	0.0%	0.0%	0.0%
03:30 - 03:45	0	0	0	0.0%	0.0%	0.0%
03:45 - 04:00	0	0	0	0.0%	0.0%	0.0%
04:00 - 04:15	0	0	0	0.1%	0.0%	0.1%
04:15 - 04:30	0	0	0	0.1%	0.0%	0.1%
04:30 - 04:45	0	0	0	0.0%	0.0%	0.0%
04:45 - 05:00	0	0	0	0.0%	0.0%	0.0%
05:00 - 05:15	0	0	0	0.0%	0.0%	0.0%
05:15 - 05:30	0	0	0	0.0%	0.0%	0.0%
05:30 - 05:45	0	0	0	0.0%	0.0%	0.0%
05:45 - 06:00	0	0	0	0.1%	0.1%	0.1%
06:00 - 06:15	0	0	0	0.1%	0.0%	0.1%
06:15 - 06:30	1	0	1	0.4%	0.0%	0.2%

Time	Trips			Profile (%)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
06:30 - 06:45	0	0	0	0.0%	0.0%	0.0%
06:45 - 07:00	0	0	0	0.0%	0.3%	0.1%
07:00 - 07:15	2	0	2	1.1%	0.3%	0.7%
07:15 - 07:30	2	0	3	1.5%	0.3%	0.9%
07:30 - 07:45	2	0	2	1.4%	0.1%	0.8%
07:45 - 08:00	4	1	5	2.5%	0.6%	1.6%
08:00 - 08:15	6	1	7	3.9%	0.4%	2.1%
08:15 - 08:30	**15**	**1**	**16**	**9.4%**	**0.5%**	**4.9%**
08:30 - 08:45	**17**	**7**	**24**	**11.0%**	**4.4%**	**7.7%**
08:45 - 09:00	**22**	**21**	**43**	**13.9%**	**13.3%**	**13.6%**
09:00 - 09:15	**13**	**15**	**28**	**8.3%**	**9.5%**	**8.9%**
09:15 - 09:30	2	3	5	1.3%	1.8%	1.5%
09:30 - 09:45	1	1	2	0.8%	0.5%	0.6%
09:45 - 10:00	1	1	2	0.4%	0.8%	0.6%
10:00 - 10:15	1	1	2	0.6%	0.4%	0.5%
10:15 - 10:30	1	1	1	0.4%	0.5%	0.4%
10:30 - 10:45	1	1	2	0.4%	0.6%	0.5%
10:45 - 11:00	1	1	2	0.6%	0.5%	0.6%
11:00 - 11:15	1	1	2	0.6%	0.8%	0.7%
11:15 - 11:30	1	1	3	0.9%	0.8%	0.8%
11:30 - 11:45	0	1	1	0.3%	0.6%	0.4%
11:45 - 12:00	2	2	4	1.4%	1.3%	1.3%
12:00 - 12:15	2	2	4	1.3%	1.3%	1.3%
12:15 - 12:30	2	3	5	1.4%	1.6%	1.5%
12:30 - 12:45	2	3	5	1.5%	1.6%	1.6%
12:45 - 13:00	1	1	2	0.6%	0.6%	0.6%
13:00 - 13:15	1	1	2	0.5%	0.6%	0.6%
13:15 - 13:30	1	0	1	0.5%	0.1%	0.3%
13:30 - 13:45	1	0	2	0.9%	0.1%	0.5%
13:45 - 14:00	4	1	5	2.3%	0.6%	1.4%
14:00 - 14:15	6	2	7	3.5%	1.0%	2.3%
14:15 - 14:30	**8**	**3**	**11**	**5.1%**	**1.6%**	**3.3%**
14:30 - 14:45	**15**	**25**	**40**	**9.4%**	**15.8%**	**12.6%**
14:45 - 15:00	**4**	**9**	**13**	**2.4%**	**5.5%**	**4.0%**
15:00 - 15:15	**2**	**3**	**4**	**1.0%**	**1.6%**	**1.3%**
15:15 - 15:30	2	4	6	1.1%	2.8%	1.9%
15:30 - 15:45	2	12	14	1.1%	7.5%	4.3%
15:45 - 16:00	4	7	11	2.5%	4.1%	3.3%
16:00 - 16:15	1	2	4	0.8%	1.5%	1.1%
16:15 - 16:30	1	2	3	0.5%	1.3%	0.9%
16:30 - 16:45	1	8	9	0.4%	5.0%	2.7%
16:45 - 17:00	1	4	5	0.9%	2.4%	1.6%
17:00 - 17:15	0	3	3	0.1%	1.9%	1.0%
17:15 - 17:30	0	1	1	0.0%	0.8%	0.4%
17:30 - 17:45	0	0	0	0.0%	0.1%	0.1%
17:45 - 18:00	0	0	0	0.0%	0.1%	0.1%
18:00 - 18:15	0	0	1	0.1%	0.3%	0.2%

Time	Trips			Profile (%)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
18:15 - 18:30	0	1	2	0.1%	0.9%	0.5%
18:30 - 18:45	0	1	1	0.1%	0.8%	0.4%
18:45 - 19:00	0	0	0	0.0%	0.1%	0.1%
19:00 - 19:15	0	0	0	0.0%	0.0%	0.0%
19:15 - 19:30	0	0	0	0.0%	0.0%	0.0%
19:30 - 19:45	0	0	0	0.0%	0.0%	0.0%
19:45 - 20:00	0	0	0	0.0%	0.0%	0.0%
20:00 - 20:15	0	0	0	0.1%	0.0%	0.1%
20:15 - 20:30	0	0	0	0.0%	0.0%	0.0%
20:30 - 20:45	0	0	0	0.0%	0.3%	0.1%
20:45 - 21:00	0	0	0	0.0%	0.0%	0.0%
21:00 - 21:15	0	0	0	0.0%	0.0%	0.0%
21:15 - 21:30	0	0	0	0.0%	0.0%	0.0%
21:30 - 21:45	0	0	0	0.0%	0.0%	0.0%
21:45 - 22:00	0	0	0	0.0%	0.0%	0.0%
22:00 - 22:15	0	0	0	0.1%	0.1%	0.1%
22:15 - 22:30	0	0	0	0.0%	0.0%	0.0%
22:30 - 22:45	0	0	0	0.0%	0.0%	0.0%
22:45 - 23:00	0	0	0	0.0%	0.0%	0.0%
23:00 - 23:15	0	0	0	0.0%	0.0%	0.0%
23:15 - 23:30	0	0	0	0.0%	0.0%	0.0%
23:30 - 23:45	0	0	0	0.0%	0.0%	0.0%
23:45 - 00:00	0	0	0	0.0%	0.0%	0.0%
TOTAL	**158**	**160**	**318**	**100.0%**	**100.0%**	**100.0%**

6.5 The results of the existing SEMH School survey shows that on average it generates approximately 160 daily vehicle arrivals/departures and 320 two-way daily vehicle movements.

6.6 It also shows that the development AM Peak hour is 08.15 to 09.15 with 67 arrivals (42.6%) and 44 (27.7%) departures (112 two-way trips) and the development PM Peak hour is 14.15 to 15.15 with 28 (17.8%) arrivals and 39 (24.5%) departures (67 two-way trips).

6.7 It is considered that the trips in the AM and PM Peak hours are related to pupil drop-offs and pick-ups respectively, as staff start work at 08.30 and finish after 15.30.

6.8 The **Table 6.2** below has extracted the AM and PM peak hour arrival and departures profile.

Table 6.2: AM/PM Peak Hour Arrival/Departure Pupil Profile

Peak Hour	Time	AM/PM Peak Hour Pupil Profile (%)	
		Arrivals	Departures
AM	08:15 - 08:30	22.0%	1.8%
	08:30 - 08:45	25.8%	15.8%
	08:45 - 09:00	32.6%	48.0%
	09:00 - 09:15	19.6%	34.4%

Peak Hour	Time	AM/PM Peak Hour Pupil Profile (%)	
		Arrivals	Departures
PM	14:15 - 14:30	28.4%	6.6%
	14:30 - 14:45	52.5%	64.3%
	14:45 - 15:00	13.5%	22.4%
	15:00 - 15:15	5.7%	6.6%

6.9 The following additional information has been provided by the Client in relation to the operation of the existing Site: -

- School is unlocked at 06:30 by cleaners.
- First staff arrive from 07:00.
- Official start time is 09:00 but pupils start arriving approx. 15 minutes before.
- Official closing time is 14:30 but taxis typically arrive 45 minutes prior to this.
- Building is locked at 18:30 by cleaners.

6.10 As this is a SEMH school the protocol is that pupils do not travel together and therefore all pupils are individually escorted from the vehicle dropping them off to the classroom by staff on arrival. At departure time, all pupils are individually escorted from the classroom to the vehicle assigned to picking them up.

Proposed Development Trip Generation

6.11 As part of the proposals, all the current staff and pupils at Joseph Norton Academy SEMH School will transfer to the proposal Site in Deighton.

6.12 There will be capacity for 132 pupils at the new Site, which is a pupil capacity increase of 69 pupils. To accommodate the increase in pupils there will be a total of 99 staff, which is a staff increase of 49 staff.

6.13 **Table 6.3** compares the existing staff/pupil levels and proposed staff/pupil levels.

Table 6.3: Existing and Proposed Staff / Pupil Levels

	Existing	Proposed	Difference	%tage Increase
Pupils	63	132	+ 69	110%
Staff	50	99	+ 49	98%
TOTAL	113	231	+ 118	104%

6.14 Therefore, to calculate the likely additional trips generated at the new Deighton Site, the following assumptions have been applied: -

- All students are ambulant, so all do not need taken to class individually and most older students walk in independently under supervision.

- Of the 132 pupils, 99 will be transported and 33 will travel independently.

- Staff members arrives and departs by single occupancy, outside pupil drop off/pick up times.

6.15 To determine the peak hour trip movements, the 99 pupils of the 132 pupils with the remaining that do not require individually escort and walk in independently under supervision has been applied to the AM and PM peak hour arrivals and departures set out in **Table 6.3.** The result of this calculation is summarised in **Table 6.4** below.

Table 6.4: Proposed Development Vehicle Trip Generation – Weekday Peak Hours

Peak Hour	Time	AM/PM Peak Hour Pupil Trips			
		Arrivals		Departures	
		Profile (%)	Trip (99)	Profile (%)	Trip (99)
AM	08:15 - 08:30	22.0%	22	1.8%	2
	08:30 - 08:45	25.8%	26	15.8%	16
	08:45 - 09:00	32.6%	32	48.0%	47
	09:00 - 09:15	19.6%	19	34.4%	34
	TOTAL	**100.0%**	**99**	**100.0%**	**99**
PM	14:15 - 14:30	28.4%	28	6.6%	7
	14:30 - 14:45	52.5%	52	64.3%	64
	14:45 - 15:00	13.5%	13	22.4%	22
	15:00 - 15:15	5.6%	6	6.7%	6
	TOTAL	**100.0%**	**99**	**100.0%**	**99**

6.16 As part of the proposals, the trips associated with the JNA SEMH school will transfer to the proposed SEMH school in Deighton. The remainder of trips will be new to the highway network. **Table 6.5** quantifies the number of transferred trips already on the network and new trips associated with the new SEMH School.

Table 6.5: Proposed Development Trips (Transferred and New) – Weekday Peak Hours

Peak Hour	Arrivals	Departures	Two Way
AM Transferred Trips	63	63	126
AM New Trips	36	36	72
AM Total Trips	**99**	**99**	**198**
PM Transferred Trips	63	63	126
PM New Trips	36	36	72
PM Total Trips	**99**	**99**	**198**

6.17 Based on the above calculations, it is estimated that the proposed SEMH school in Deighton would generate **72** two-way vehicle movements in both the AM and PM Peak hours which would be 'new' trips to the local road network.

Impact of Proposals

6.18 It is considered that level of development traffic would not have a detrimental impact on the local road network. However, the main consideration relates to queuing vehicles waiting to drop off and pick up pupils and whether these can be accommodated.

Current Drop Off/Pick Up Arrangements at JNA

6.19 The drop off in the morning and pick up in the afternoon routine at JNA SEMH School is all 50 members of staff are involved and all pupils are ambulant, so all pupils do not need escorted to class and the majority of the older students walk in independently under supervision, Taxis unload in seconds and then drive away once students are out.

6.20 The currently drop off/pick takes 30 minutes but this is due to the staggered arrival of taxis (they arrive between 8.50 and 9.20 in the morning and 14.00 and 15.00 in the afternoon) and if all taxis arrived at the same time this drop of process could be completed in less than 10 minutes.

6.21 As the school has a larger drop off/pick up area, with a more efficient one-way system and more staff it is envisaged that drop off/pick up process can be completed in 10 minutes.

Drop Off/Pick Up Capacity Assessment

6.22 To provide some comfort that the proposed layout can accommodate any queuing traffic associated with the drop off /pick up process the internal proposed layout provides queuing within the Site (does not include the access road from Deighton Road) through the car park up to the drop off area. The available internal queuing is approximately 38 cars based on a car length of 5.7m. The drop off/pick up area has the capacity of 12 cars which allows a total capacity of 50 cars which can be seen on drawing **DEI-BWB-GEN-XX-DR-TR-104**.

6.23 The current drop of pick-up process on the existing site will be implemented at this Site, therefore the current drop- off time takes 30 minutes with 50 members of staff with a short drop off area and as part of the proposals there will be 99 members of staff available and capacity for 12 cars to drop off/pick up at once.

6.24 With the improved capacity drop off/pick up area and twice as many members of staff the available the drop off/pick up process can be carried out in less than the current process of 30 minutes and therefore it is considered that the proposed layout provides more than sufficient queuing capacity within the confines of the Site.

7. SUMMARY AND CONCLUSIONS

7.1 This Transport Assessment has dealt with the highway and traffic issues raised by an educational development site on the land to the north of Deighton Road.

7.2 The proposed development comprises a new Special Educational Mental Health (SEMH) School to cater for up to 132 pupils.

7.3 As part of the proposals, all the current staff and pupils at Joseph Norton Academy SEMH School will transfer to the proposal Site in Deighton.

7.4 There will be capacity for 132 pupils at the new Site, which is a pupil capacity increase of 69 pupils. To accommodate the increase in pupils there will be a total of 99 staff, which is a staff increase of 49 staff.

7.5 The highway network in the vicinity of the site has been described in detail and it has been demonstrated that the site is accessible to a choice of means of travel.

7.6 Vehicular and non-motorised user access to the development is proposed from Deighton Road at the location of the existing priority T-junction access to the Site.

7.7 It is considered that level of development traffic would not have a detrimental impact on the local road network and the layout has provision/capacity for queuing vehicles waiting to drop off and pick up pupils within the site.

7.8 With reference to paragraph 111 of the NPPF, the traffic impact of the development proposals will be negligible and is not considered to be 'severe'.

7.9 In conclusion, it has been shown that the development can be accessed in a safe manner and would have a negligible impact on the operation of the local highway network.

DRAWINGS

DEI-BWB-GEN-XX-DR-TR-103
Junction Visibility Splays

Notes

1. Do not scale this drawing. All dimensions must be checked/ verified on site. If in doubt ask.
2. This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.
3. All dimensions in millimetres unless noted otherwise. All levels in metres unless noted otherwise.
4. Any discrepancies noted on site are to be reported to the engineer immediately.

Key Plan

Issues & Revisions

Rev	Date	Details of issue / revision	Drw	Rev
P1	07.09.23	PRELIMINARY ISSUE	RW	AB

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Client
Frank Shaw Associates Ltd

Project Title
Proposed Deighton SEMH School, Huddersfield

Drawing Title
Junction Visibility Splays

Drawn:	R. Wickenden	Reviewed:	A. Bilkhu
BWB Ref:	220983.00	Date:	07.09.23

Scale@A3: 1:500

Drawing Status
PRELIMINARY

Project - Originator - Zone - Level - Type - Role - Number
DEI-BWB-GEN-XX-DR-TR-103

Status **S2** | Rev **P1**

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DEI-BWB-GEN-XX-DR-TR-104
Queue Capacity

Notes

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Drawing Status
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Project - Originator - Zone - Level - Type - Role - Number	Status	Rev
DEI-BWB-GEN-XX-DR-TR-104	S2	P1

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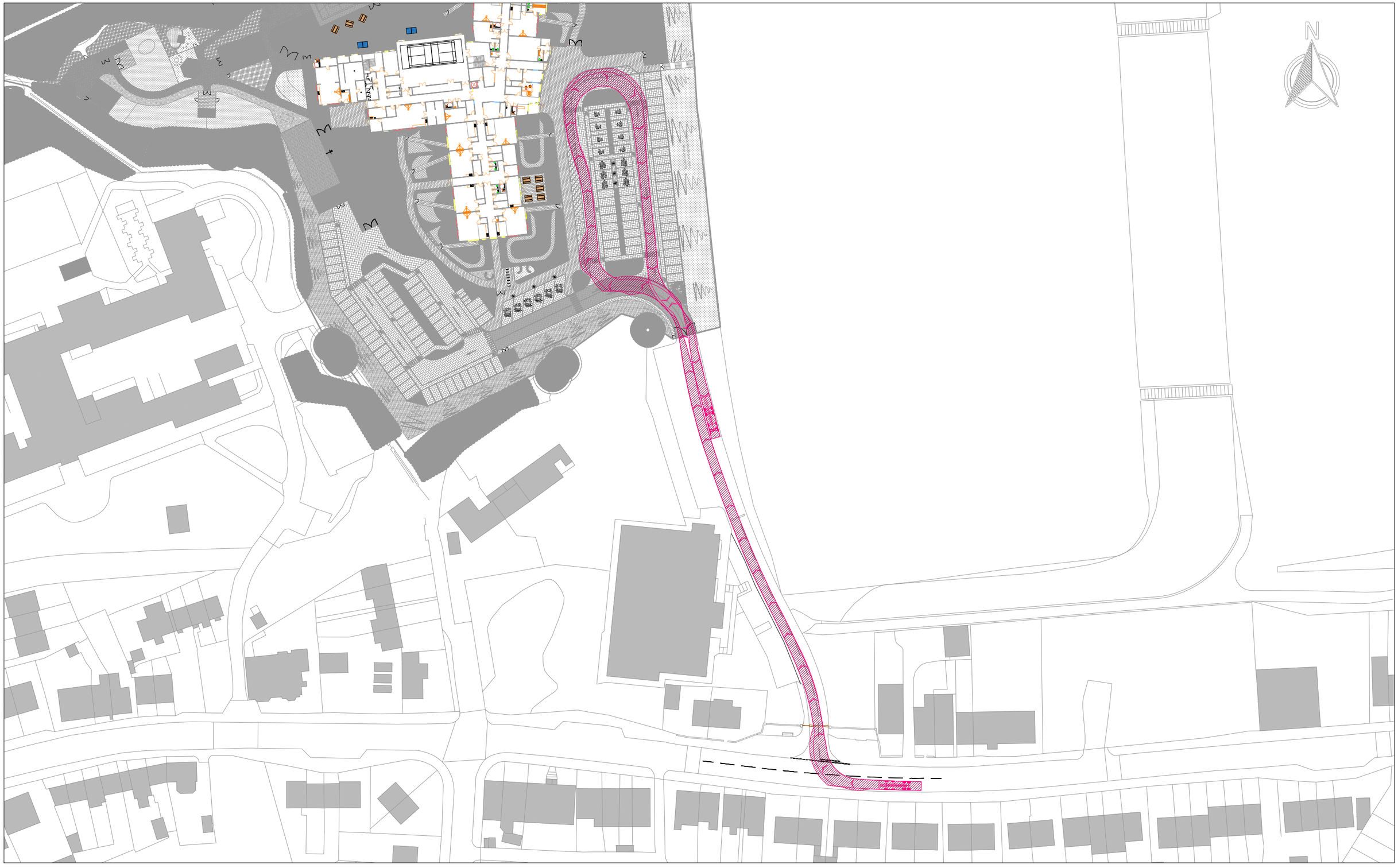
DEI-BWB-GEN-XX-DR-TR-110
Swept Path Assessment - Refuse Vehicle



Notes

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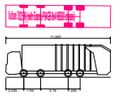
Key Plan



Vulture 2025(N) (with Scania P94GB 8x4 NB300 chassis)

Overall Length	11.997m
Overall Width	2.500m
Overall Body Height	3.430m
Min Body Ground Clearance	0.302m
Track Width	2.496m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	10.800m

Issues & Revisions

Rev	Date	Details of issue / revision	Drw	Rev
P1	24.08.23	PRELIMINARY ISSUE	RW	AB
P2	04.09.23	PRELIMINARY ISSUE	RW	AB
P3	07.09.23	PRELIMINARY ISSUE	RW	AB

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Client
Frank Shaw Associates Ltd

Project Title
Proposed Deighton SEMH School, Huddersfield

Drawing Title
Swept Path Assessment: Refuse Vehicle

Drawn:	R. Wickenden	Reviewed:	A. Bilkhu		
BWB Ref:	220983.00	Date:	24.08.23	Scale@A3:	1:1000

Drawing Status
PRELIMINARY

Project - Originator - Zone - Level - Type - Role - Number
DEI-BWB-GEN-XX-DR-TR-110

Status **S2** | Rev **P3**

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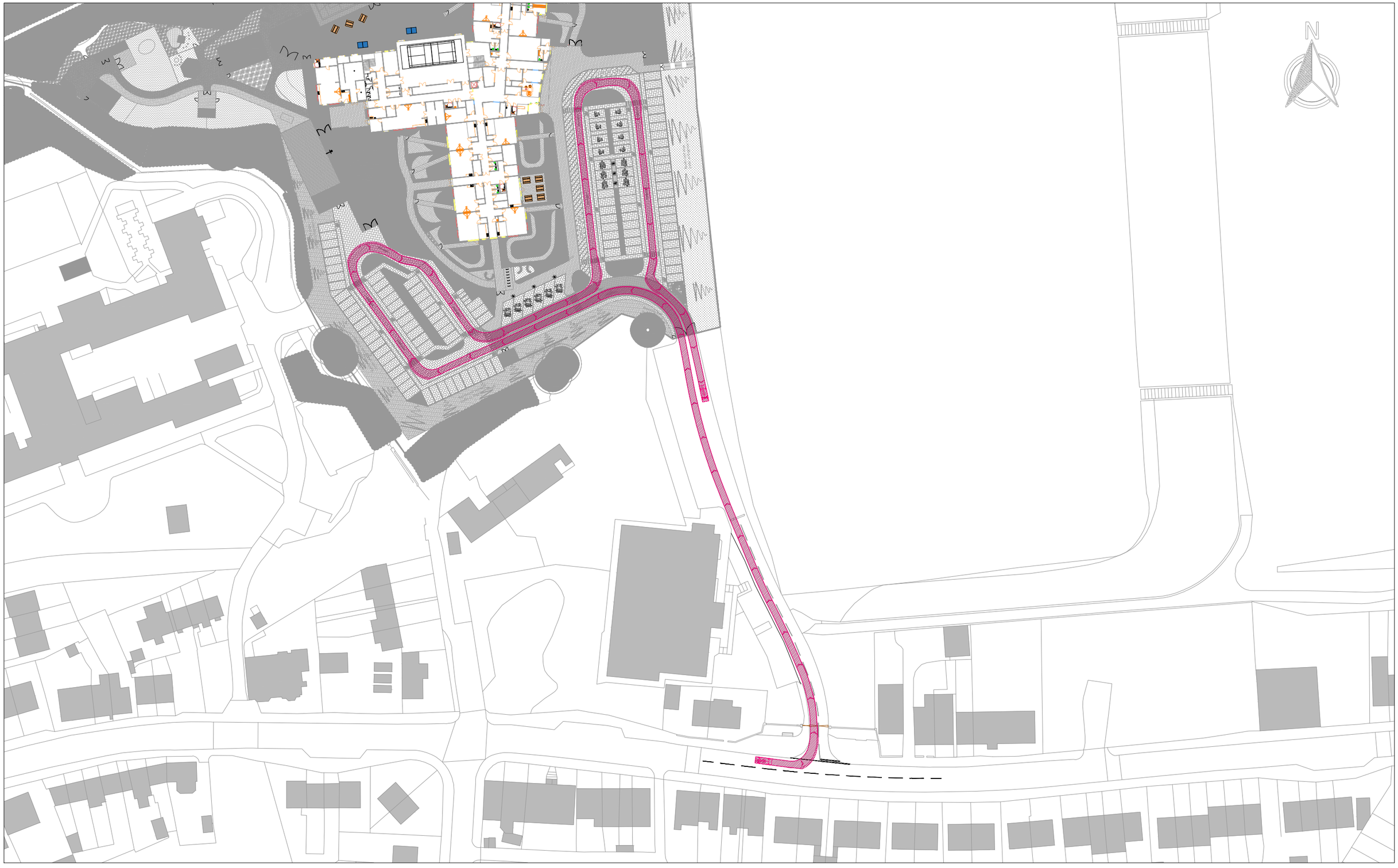
DEI-BWB-GEN-XX-DR-TR-111
Swept Path Assessment – Estate Car



Notes

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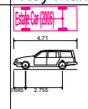
Key Plan



Estate Car (2006)

Overall Length	4.710m
Overall Width	1.804m
Overall Body Height	1.442m
Min Body Ground Clearance	0.207m
Max Track Width	1.756m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	5.950m

Issues & Revisions

Rev	Date	Details of issue / revision	Drw	Rev
P1	24.08.23	PRELIMINARY ISSUE	RW	AB
P2	04.09.23	PRELIMINARY ISSUE	RW	AB
P3	07.09.23	PRELIMINARY ISSUE	RW	AB

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Client
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Project Title
Proposed Deighton SEMH School, Huddersfield

Drawing Title
Swept Path Assessment: Estate Car

Drawn:	R. Wickenden		Reviewed:	A. Bilkhu	
BWB Ref:	220983.00	Date:	24.08.23	Scale@A3:	1:1000

Drawing Status
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Project - Originator - Zone - Level - Type - Role - Number
DEI-BWB-GEN-XX-DR-TR-111

Status **S2** | Rev **P3**

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DEI-BWB-GEN-XX-DR-TR-112
Swept Path Assessment - Delivery Vehicle