

Technical design note

Project name	Xaverian College		
Design note title	Transport Technical Design Note		
Document reference	11742-HYD-XX-XX-RP-TP-1002		
Author	Chris Peachey BA (Hons)		
Revision	2		
Date	11 May 2023	Approved	✓

1. Introduction

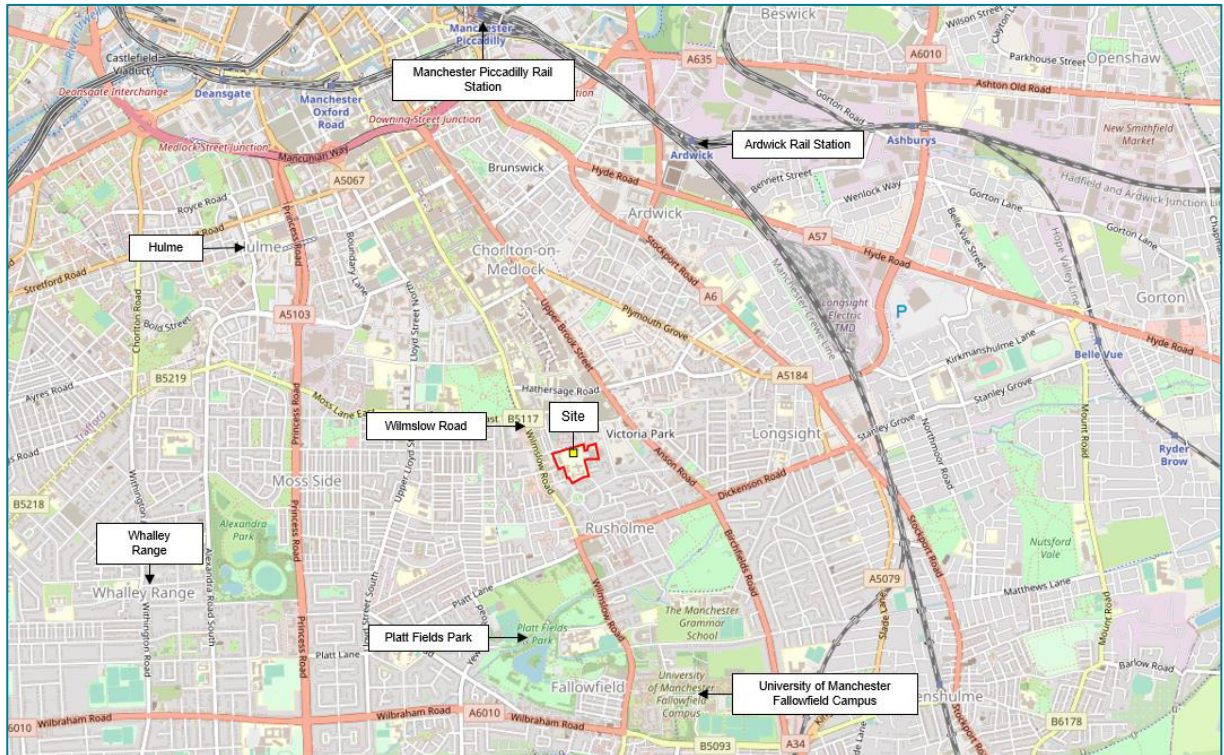
1.1 Context

- 1.1.1 Hydrock have been instructed by the Xaverian College to provide transportation assistance in relation to a proposed extension development to the existing Xaverian College site in Rusholme, Manchester.
- 1.1.2 The planning application is for the demolition of an existing building and the erection of a new science building teaching block in the south-west corner of the site on an existing car park area. The building will be approximately 1250sqm in size.

1.2 Site Location

- 1.2.1 Access to Xaverian College is provided from Thurloe Street and Crescent Range. Thurloe Street connects the site to the wider highway network by providing access to Wilmslow Road to the west. Crescent Road provides access to the residential area to the east and south east by connecting with Lower Park Road and Park Crescent. The site is approximately 4km south from Manchester City Centre via the A34 and 1.6km north of the University of Manchester's Fallowfield Campus via Wilmslow Road.
- 1.2.2 **Figure 1.1** below presents the colleges location for reference.

Figure 1.1 Site Location



2. TRANSPORT POLICY CONTEXT

2.1 Preamble

2.1.1 In order to assess the proposals and develop a Travel Plan for the site it is necessary to review both local and national transport planning guidance. The following sections outline the relevant policy and guidance documents in respect of the proposed development.

2.2 National Planning Policy Framework

- 2.2.1 The NPPF sets out the Government's policies for delivering sustainable development through the planning system. Local authorities are required to take these policies into account when formulating local development plans and when determining planning applications.
- 2.2.2 The most recent NPPF report was published in July 2021 and sets out the Government's planning policies for England and how these are expected to be applied at a local level. The NPPF is a significant material consideration in plan making and decision taking.
- 2.2.3 Paragraph 104 seeks to encourage opportunities to promote walking, cycling and public transport use. This is supplemented by paragraph 105 which states that development should be focused in sustainable locations and offer a genuine choice of transport modes.
- 2.2.4 Development proposals should also give priority to pedestrian and cycle movements and facilitate access to high quality public transport. The needs of people with disabilities and reduced mobility should also be addressed (paragraph 112).

- 2.2.5 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.
- 2.2.6 Having regard to the above objectives, the proposed site access strategy includes measures to connect the site with the adjacent community and sustainable travel network, including existing public transport services.

2.3 Guidelines for Providing for Journeys on Foot

- 2.3.1 Various walking distances are quoted in the Chartered Institution of Highways and Transportation's (CIHT's) "Guidelines for Providing for Journeys on Foot". Table 2.1 (taken from Table 3.1 of the document) sets out the acceptable walking distances in various contexts:

Table 2:1 Acceptable Walking Distances

Criteria	Town Centre (m)	College / Commuters (m)	Elsewhere (m)
Desirable	200	500	400
Acceptable	400	1,000	800
Preferred Maximum	800	2,000	1,200

2.4 Manchester's Core Strategy Development Plan (Adopted 2011)

- 2.4.1 The Core Strategy was adopted by Manchester City Council on 11th July 2012. It is the key document in Manchester's Local Development Framework and covers a period of 15 years from 2012 to 2027. It describes Manchester today and outlines the Council's vision for Manchester in 2027 along with the planning policies which will be used to deliver that vision.
- 2.4.2 Below are a few targets for Manchester to be achieved by 2027:
- » A successful sustainable and accessible City in the front rank of cities in Europe and the world;
 - » A City with a growing economy driven by the strength of the Regional Centre and Manchester Airport which supports a successful City Region. The knowledge based economy flourishes within an entrepreneurial community, characterised by a fully skilled, inclusive working population;
 - » Meeting the challenge of climate change at the forefront of environmental initiatives and improvements and continuing to deliver sustainable development and a more effective Green Infrastructure;
 - » A City with an increased and sustainable healthy population and a community which both benefits from and drives the City's productivity upwards;
 - » A City with thriving district centres, which have a distinct local character and provide a good range of accessible public services, retail and local facilities;
 - » A City which is supported by transport infrastructure which provides sustainable and efficient links locally, within the City, and more widely, between the Regional Centre and workers across the City Region. It will also have strong national and international connections made possible by its world class airport;

- » A City defined by excellence in urban design and environmental quality, where its distinctive historic environment is understood, valued, cared for and its potential fully realised.

SO5. Transport:

- » Improve the physical connectivity of the City, through sustainable and accessible transport networks, to enhance its functioning and competitiveness and provide access to jobs, education, services, retail, leisure and recreation. Access to the facilities and opportunities of the Regional Centre and Manchester Airport, from residential areas will be particularly important, as will improving links between the City and city regions across the country via high speed rail links and internationally via Manchester Airport.

2.5 Manchester City Centre Transport Strategy 2040

2.5.1 The aim of the strategy is to deliver a zero-carbon city-region by 2038. Shaped by the strategy, transport and growth in the city centre will play a big part in the journey to zero-carbon and tackling the climate emergency. Some of the following ambitions for the city can be seen below:

2.5.2 Ambition 1: Walking is the main way of getting around the city

- » The city centre is safe and easy to walk around with clear, well-signed routes. Pavements and public spaces will be high quality, green and accessible; catering for everyone, no matter what their age or mobility.

2.5.3 Ambition 3: More people choose to cycle to destinations within the city centre

- » There is an attractive, safe, protected and efficient cycling network into and through the city centre, delivered as part of our city-region's proposed Bee Network. Cycling is supported with good parking facilities close to key destinations, and hire bikes are easy to access in the city centre.

2.5.4 Ambition 4: The city centre benefits from better public transport connections

- » Manchester city centres is well connected by rail to other cities and towns (to support commuting, business and leisure trips). There is sufficient capacity on peak hour Metrolink, bus and rail services, and better integration between modes to ensure that public transport is an attractive alternative to car travel. Public transport operating hours and service patterns support travel needs at evenings and weekends, particularly for leisure and commuting trips. Cross-city services are convenient, reliable, safe and secure, clean, quiet and accessible to all.

2.6 Places for Everyone Joint Development Plan Document

2.6.1 The Places for Everyone (PfE) plan of nine Greater Manchester local authorities (Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Tameside, Trafford and Wigan) is a long-term plan for jobs, new homes and sustainable growth. It replaces the previous versions of the Transport for Greater Manchester Spatial Framework following Stockport Councils decision to withdraw from this plan.

2.6.2 The nine Councils in Greater Manchester have now submitted the PfE plan to the Secretary of State for Levelling Up, Housing and Communities. Once adopted, the PfE plan will become part of the statutory development plan for each of the nine Greater Manchester authorities, including Salford.

2.6.3 By producing the PfE plan, it is envisaged that the nine district Councils will be able to continue to;

- » Progress the strategic policies in the Greater Manchester Spatial Framework, for example net zero carbon development, affordable housing and space and accessibility standards for new housing;
- » Maximise the use of sustainable urban/brownfield land and limit the need for Green Belt to accommodate the development needs of the nine Boroughs; and,
- » Align with wider Greater Manchester strategies for transport and other infrastructure investment.

2.6.4 The PfE sets out the nine districts' plan for sustainable growth by setting out how they should develop up to the year 2037; identifies the amount of new development that will come forward for different land uses; identifies the important environmental assets which will be protected and enhanced; allocates sites for employment and housing; supports the delivery of key infrastructure and defines a new Green Belt boundary.

2.6.5 The PfE plan supports the presumption in favour of sustainable development set out within the NPPF which is reflected in the overall strategy of the plan, the proposed scale and location of development and the individual policies and allocations outlined within the strategy. It includes protecting and enhancing key environmental resources, combating and adapting to climate change, reducing carbon emissions, and delivering sustainable patterns of development which minimise the need to travel and reliance on the car.

2.7 Greater Manchester Transport Strategy 2040

2.7.1 The Greater Manchester Transport Strategy 2040 sets out Greater Manchester's long-term ambition for transport and has been prepared by Transport for Greater Manchester (TfGM) on behalf of the Greater Manchester Combined Authority (GMCA). The Authorities vision is for Greater Manchester to have "world-class connections that support long-term sustainable economic growth and access to opportunity for all".

2.7.2 The Strategy set out four key goals as follows;

- » Support sustainable economic growth;
- » Protect the environment;
- » Develop an innovative city-region; and,
- » Improve quality of life for all.

2.7.3 The strategy sets out that a key element in achieving the transport objectives of the region will be to locate new developments where there is good access to public transport and services which will reduce car travel.

2.8 Parking Standards

2.8.1 All development must provide the appropriate parking standards as highlighted below. Standards for disabled people, cycle and motorcycle parking are minimums. Standards for car parking are maximums and may be subject to a further reduction when consideration is given to accessibility of the particular site.

Table 2:2 Parking Standards

Land Use	Maximum car parking spaces	Minimum number of spaces for:		
		Disabled people's parking as % of total (citywide)		Cycles (citywide)
		Up to 200 in total	Over 200 in total	
Higher and Further Education	1 space per 2 staff (includes parking for students)	Case by case basis	Case by case basis	1 space per 5 staff plus 1 space per 3 students

2.9 Summary

- 2.9.1 The above policy review summaries both local and national transport policies relevant to the proposed development site. As such it sets out the context in which the proposed development needs to be compliant.
- 2.9.2 Access on foot, cycle and public transport is discussed in the following section of this report.

3. SUSTAINABLE ACCESSIBILITY

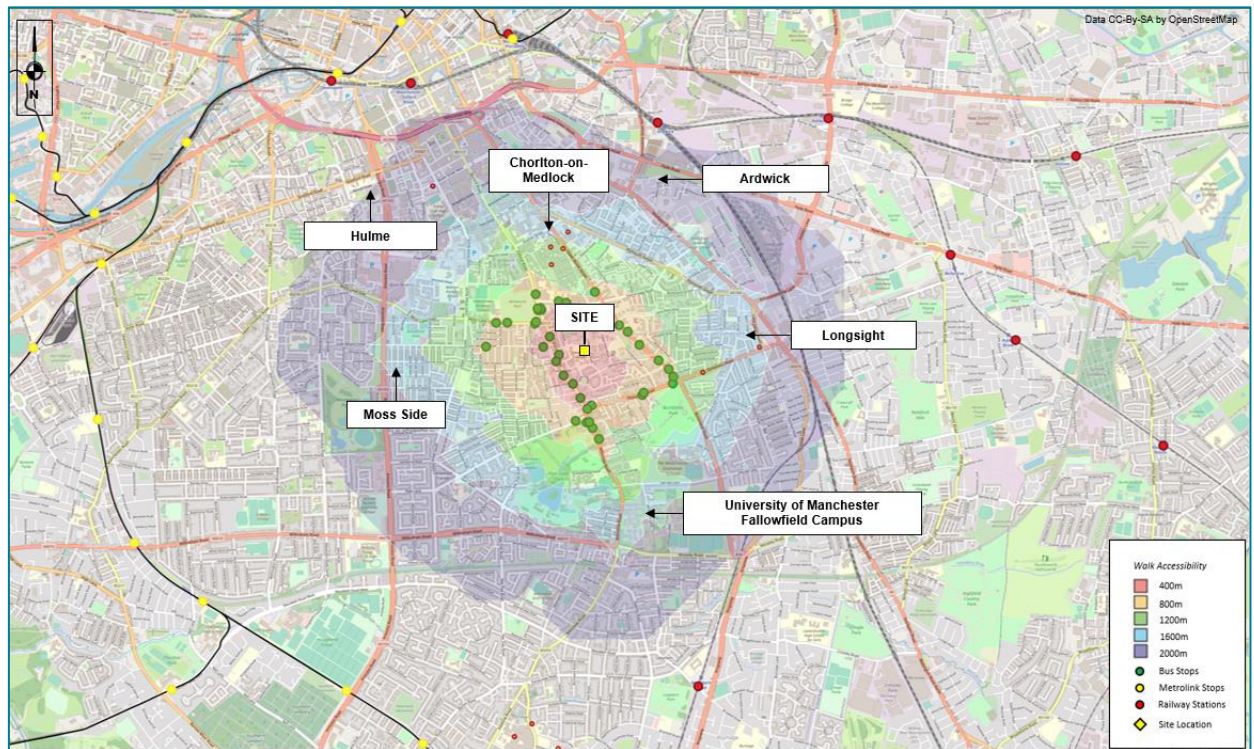
3.1 Overview

- 3.1.1 The accessibility of the proposed development by a range of transport modes has been considered in line with the Local Transport Plan and NPPF. The purpose of this section is to outline the accessibility of the development by sustainable modes of transport, including on foot, by bicycle and using public transport. By identifying the accessibility of the development by sustainable modes of transport, appropriate Travel Plan measures can be identified to promote these modes.

3.2 Accessibility on Foot

- 3.2.1 Walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly those under 2km. The guidance on the preferred maximum walking distances to amenities is given in the Chartered Institution of Highways and Transportation [CIHT] document 'Providing for Journeys on Foot' (2000).
- 3.2.2 In terms of commuting journeys by foot, the desirable distance is 500m, the acceptable distance is 1km and the preferred maximum is 2km. However, the distance that people are prepared to walk depends upon many factors; there are obvious physical factors such as age, health and disabilities, along with factors concerning the quality of the route and the environment.
- 3.2.3 In relation to shorter trips in particular, the CIHT publication Planning for Walking (section 2.1) states that "across Britain about 80% of journeys shorter than 1 mile are made wholly on foot."
- 3.2.4 In the vicinity of the college, the local highway network provides lit footways that are in good condition leading to bus stops on Wilmslow Road, with dropped kerbs and tactile paving at crossing points.
- 3.2.5 **Figure 3.1** below shows the 2km catchment from the college, which illustrates the areas which lie within a reasonable walking distance. A copy of the walking catchment is provided in Figure 1 of **Appendix A**.

Figure 3.1 2km Walking Catchment



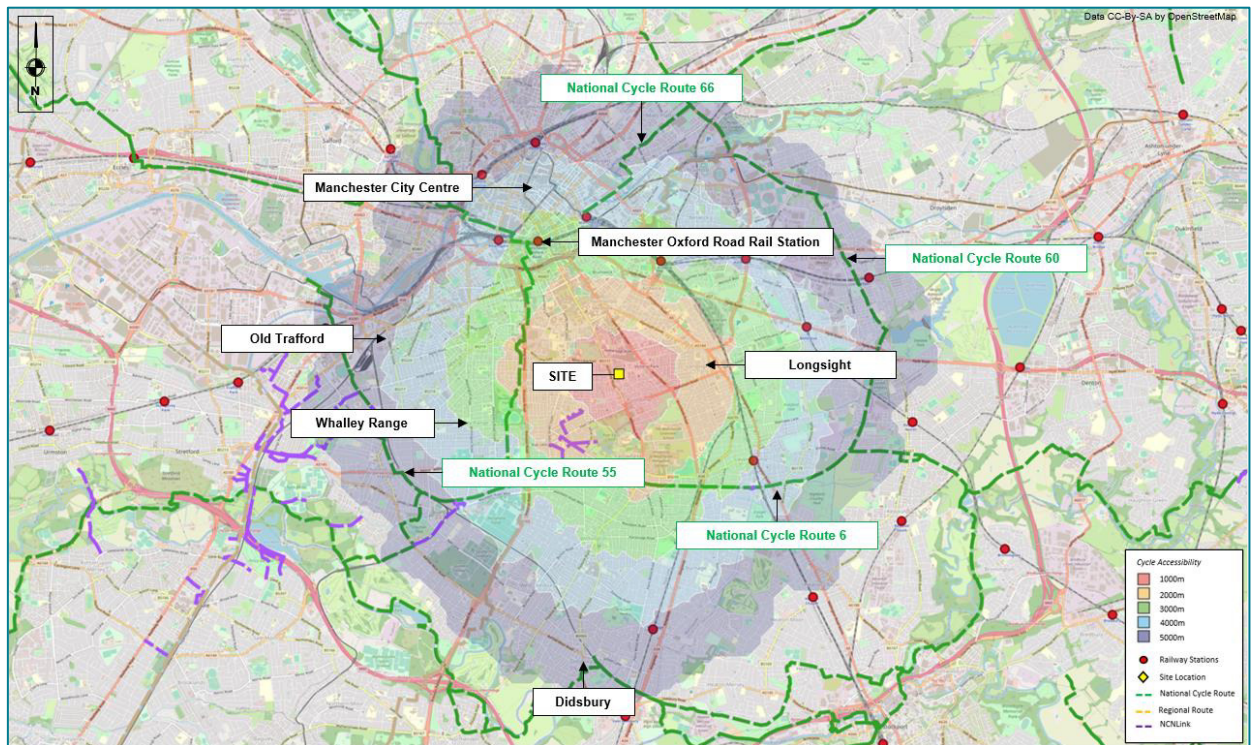
Source: CC-BY-SA by OpenStreetMap

- 3.2.6 As presented in **Figure 3.1** there are a number of bus stops located within 800m of the development which provides opportunities for pedestrians to arrive at the site from further afield.
- 3.2.7 The nearest pair of bus stops are located to the west of the college on Wilmslow Road, which can be accessed using Thurloe Street. Both bus stops are approximately 260 metres from the college.
- 3.2.8 In summary, for pedestrians, the college is located in an accessible area of Rusholme, Manchester within close proximity to local amenities. There are opportunities for walking, as well as, the potential to reduce the need for people to make short car journeys. The close proximity of the bus stops to the site, enhances accessibility for students, commuters and visitors to travel from further afield.

3.3 Accessibility by Cycle

- 3.3.1 It is widely recognised that cycling can act as a substitute for short car journeys, particularly those up to 5km in length. This is consistent with the statement in LTN 1/20 Cycle Infrastructure Design (paragraph 2.2.2) that states:
- "two out of every three personal trips are less than five miles in length – an achievable distance to cycle for most people, with many shorter journeys also suitable for walking."
- 3.3.2 Experienced cyclists will often be prepared to cycle longer distances for whatever journey purpose.
- 3.3.3 **Figure 3.2** below presents an extract of the 5km cycling catchment from the college. A copy of the cycling catchment is provided in Appendix A. 5km is equivalent to a typical cycle time of 15-20 minutes, making it an achievable distance for most people.

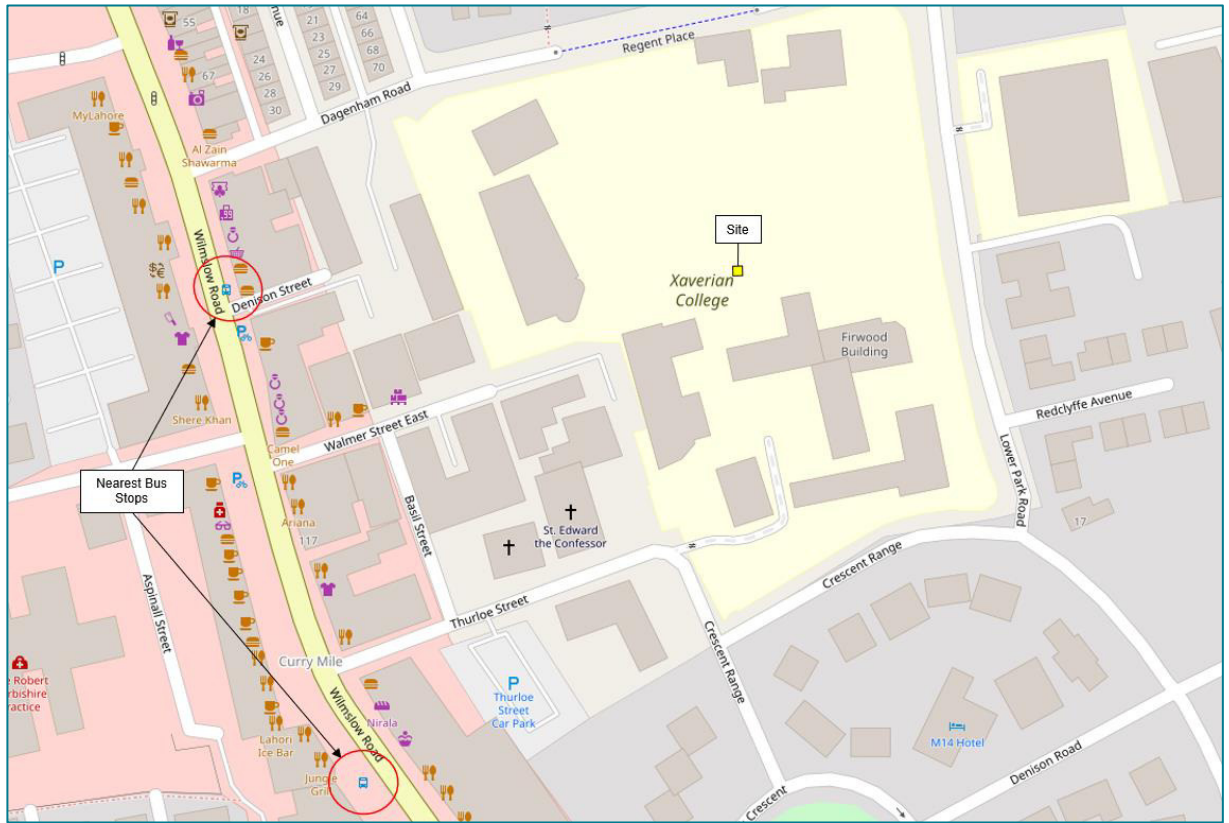
Figure 3.2 5km Cycling Catchment



Source: CC-BY-SA by OpenStreetMap

- 3.3.4 **Figure 3.2** demonstrates that a wide range of local areas including Manchester City Centre, Old Trafford, and the surrounding residential areas of Didsbury, Whalley Range and Longsight are all accessible within a 5km cycle.
- 3.3.5 Cycling would therefore be a viable mode of transport for staff, students and visitors to the college from these locations.
- 3.4 **Access by Bus**
- 3.4.1 Within 800m of the site, there are a number of bus stops which will help facilitate access to the college by this mode of travel. The nearest bus stops are located to the west of the college on Wilmslow Road, which can be accessed using Thurloe Street. For southbound travel (away from Manchester), pedestrians can walk north to the Great Western Street (Stop H). For southbound travel, pedestrians will travel south and cross at the signalised crossing and use Rusholme Centre (Stop G).
- 3.4.2 Both bus stops are approximately 260 metres from the college and are operated by Stagecoach and Go North West.
- 3.4.3 A map illustrating the closest bus stops in relation to the development location is provided in **Figure 3.3**. All bus stops within the local area provide shelters with seating and timetable information.

Figure 3.3 Bus Stop Map



Source: CC-BY-SA by OpenStreetMap

- 3.4.4 The frequency of the services from the local bus stops along within the 800m threshold are presented in **Table 3.1**. For simplicity and to avoid double counting, the frequencies are taken at the nearest available stop for each service. The AM and PM peak for the Weekday are 08:00-09:00 and 15:00-16:00.

Table 3.1: Bus Timetable Summary

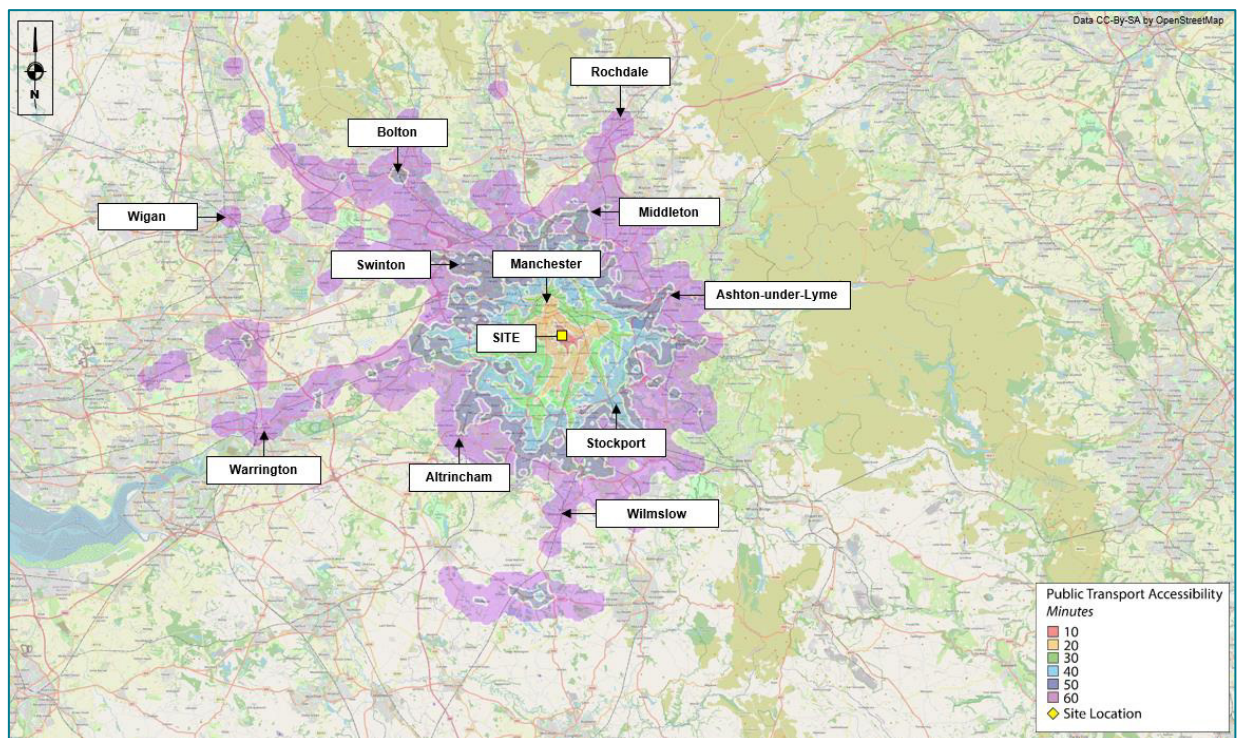
Service	Route To	Monday – Friday				
		First	AM Peak	PM Peak	Last	Per Day
41 CrossCity	Middleton - Sale	04:58	3	3	23:05	50
	Sale - Middleton	05:39	4	3	23:01	49
42	Piccadilly Gardens - Stockport	05:43	2	2	23:43	40
	Stockport - Piccadilly Gardens	05:02	3	2	23:58	40
42a	Piccadilly Gardens - North Reddish	05:54	1	2	18:09	23
	North Reddish - Piccadilly Gardens	07:01	2	2	19:11	23
42b	Piccadilly Gardens - Woodford	06:13	1	1	21:58	17
	Woodford - Piccadilly Gardens	06:15	2	1	19:49	18
42c	Piccadilly Gardens - Handforth Dean	06:27	1	1	18:21	13
	Handforth Dean - Piccadilly Gardens	08:13	1	1	20:19	13
43	Piccadilly Gardens - Manchester Airport	00:12	6	6	23:43	99
	Manchester Airport - Piccadilly Gardens	00:38	6	5	23:47	101
53 Orbits	Cheetham Hill - Pendleton	05:44	1	2	23:58	33
	Pendleton - Cheetham Hill	05:09	1	2	23:12	32
142	Piccadilly Gardens - East Didsbury	06:31	6	6	23:51	105
	East Didsbury - Piccadilly Gardens	06:57	6	6	23:53	103
143	Piccadilly Gardens - West Didsbury	07:24	12	11	23:59	182
	West Didsbury - Piccadilly Gardens	06:39	10	12	23:39	181
147	Ancoats - West Didsbury	07:22	2	2	20:07	26
	West Didsbury - Ancoats	07:31	2	2	20:50	27
Total		-	72	72	-	1175

- 3.4.5 Table 3.1 above shows that the site is well served by bus services, with 1175 buses passing the site in the weekday, which offer regular and convenient opportunities to travel to neighbouring areas.
- 3.4.6 It is therefore concluded that the college benefits from excellent access by bus, offering an attractive mode of transport. Given the frequency of the services available and the proximity of bus stops, this has the potential to provide a significant alternative to single occupancy car journeys.

3.5 Accessibility by Public Transport

- 3.5.1 A calculation has been undertaken, using GIS software - Basemap's Visography (TRACC) program, to illustrate the distance that can be travelled within 60 minutes by public transport to and from the proposed development site. The time includes the walk to the bus stops or railway station and demonstrates that key areas such as Manchester, Rochdale, Bolton, Stockport and more, are all within a 60-minute public transport journey.
- 3.5.2 **Figure 3.4** below provides an extract of the public transport 60-minute catchment area. A copy of the full plan is provided within Appendix A.

Figure 3.4 60-minute Public Transport



Source: CC-BY-SA by OpenStreetMap

3.6 Conclusions

- 3.6.1 In summary, the proposed development site is located in an accessible location in Rusholme, Manchester and is well located to make use of the existing public transport links and pedestrian, and cycle routes

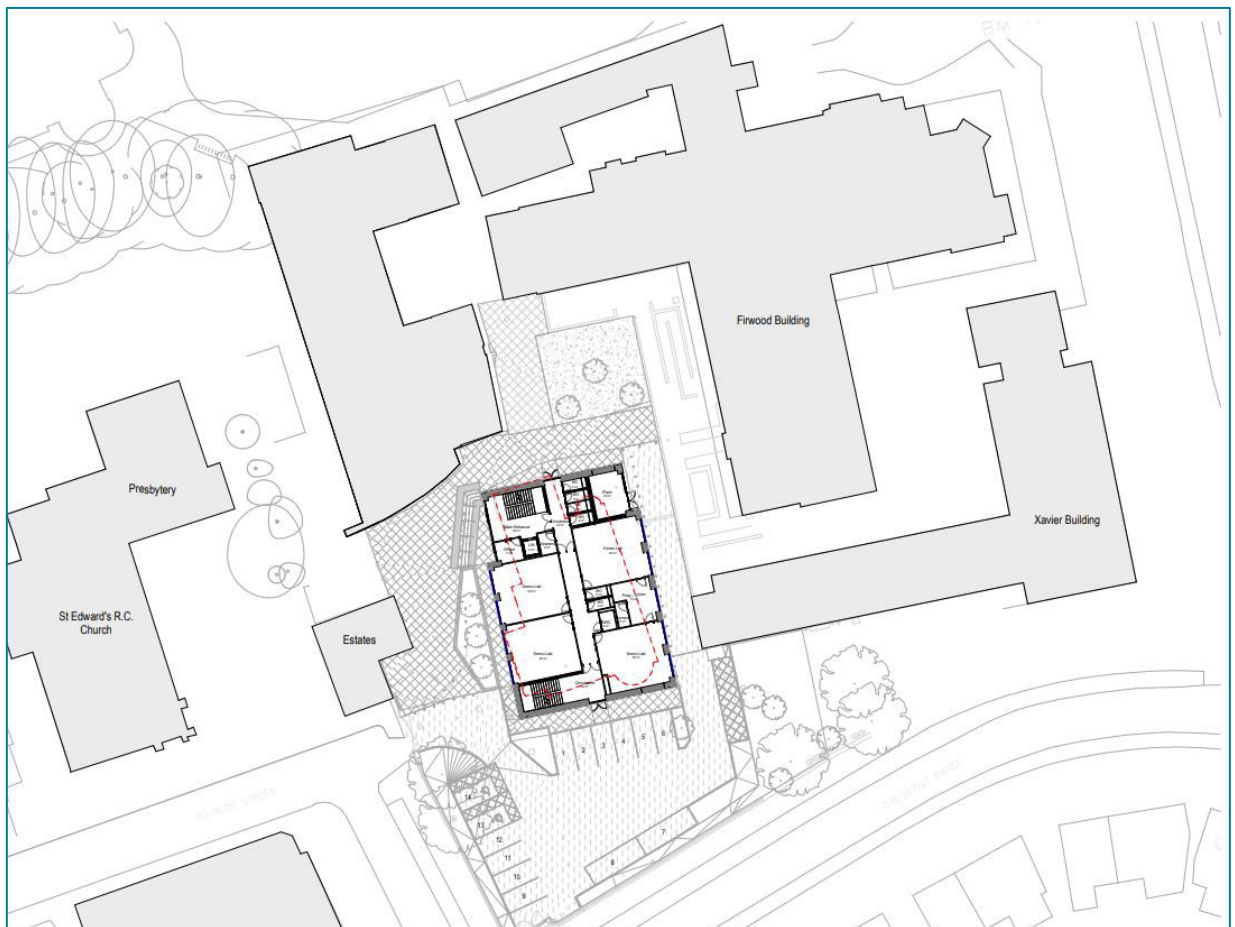
4. Development Proposals

4.1 Introduction

4.1.1 The planning application is for the demolition of an existing building and the erection of a new science building teaching block in the south-west corner of the site on an existing car park area. The building will be approximately 1250sqm in size.

4.1.2 **Figure 4.1** below illustrates the proposed site layout; this is also provided within **Appendix B**

Figure 4.1 Proposed Site Plan



Source: Pozzoni

4.2 Proposed Site Access Arrangement

4.2.1 The existing access from Thurloe Street will remain unchanged providing access for pedestrians and a limited number of cars.

4.3 Parking

4.3.1 The proposed development will provide 14 car parking bays, including two accessible bays for people with disabilities. Swept path analysis drawings are provided within **Appendix C** for a large car accessing the car parking spaces.

4.3.2 The college provides 138 cycle parking spaces across the campus, with shower, changing and locker facilities for students and staff.

4.4 Servicing

4.4.1 The servicing arrangements for the college will remain unchanged.

5. Trip Generation

- 5.1.1 This section of the report considers the trip generation levels associated with the proposed development and the impact it will have on the local highway network. The proposed development is replacing an existing building and will not increase staff or pupil numbers. As such, the trip generation of the proposed development is therefore considered to be negligible.
- 5.1.2 The streets surrounding the site are currently subject to car parking restrictions in the form of double yellow lines, restricting opportunities for overspill parking.
- 5.1.3 As demonstrated within Section 3 above, the site is located within a highly sustainable location with access to over 1000 buses per day.
- 5.1.4 Travel surveys have been undertaken to inform the travel plan, the surveys highlighted that 56% of staff currently arrive by private car, whilst only 4% of students arrive by car,
- 5.1.5 Therefore, with regards to the above, a trip generation exercise is not deemed appropriate in this instance. The site is well located to make use of the existing public transport links and on this basis the proposed development is better placed to discourage car travel.

6. Summary and Conclusion

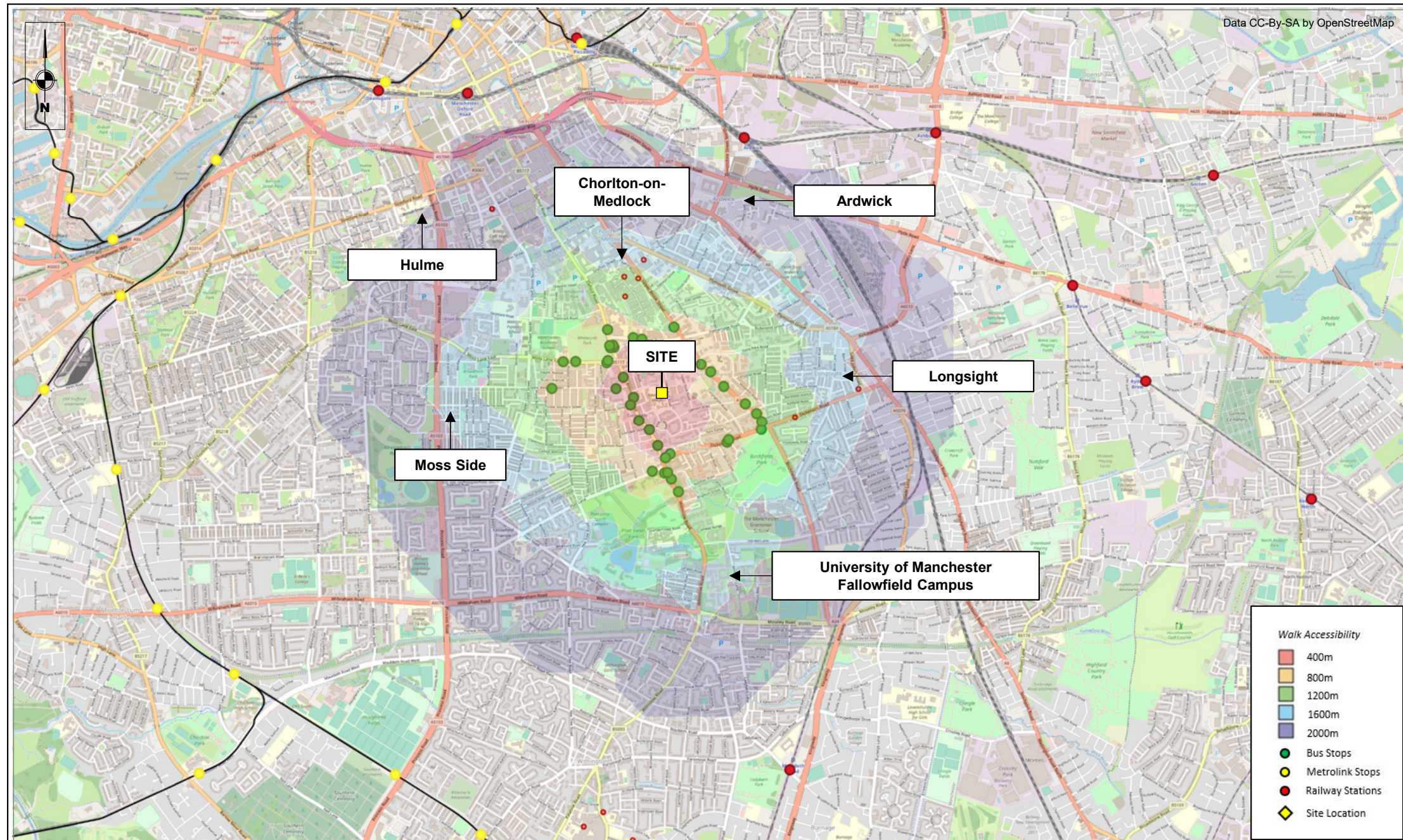
6.1 Summary

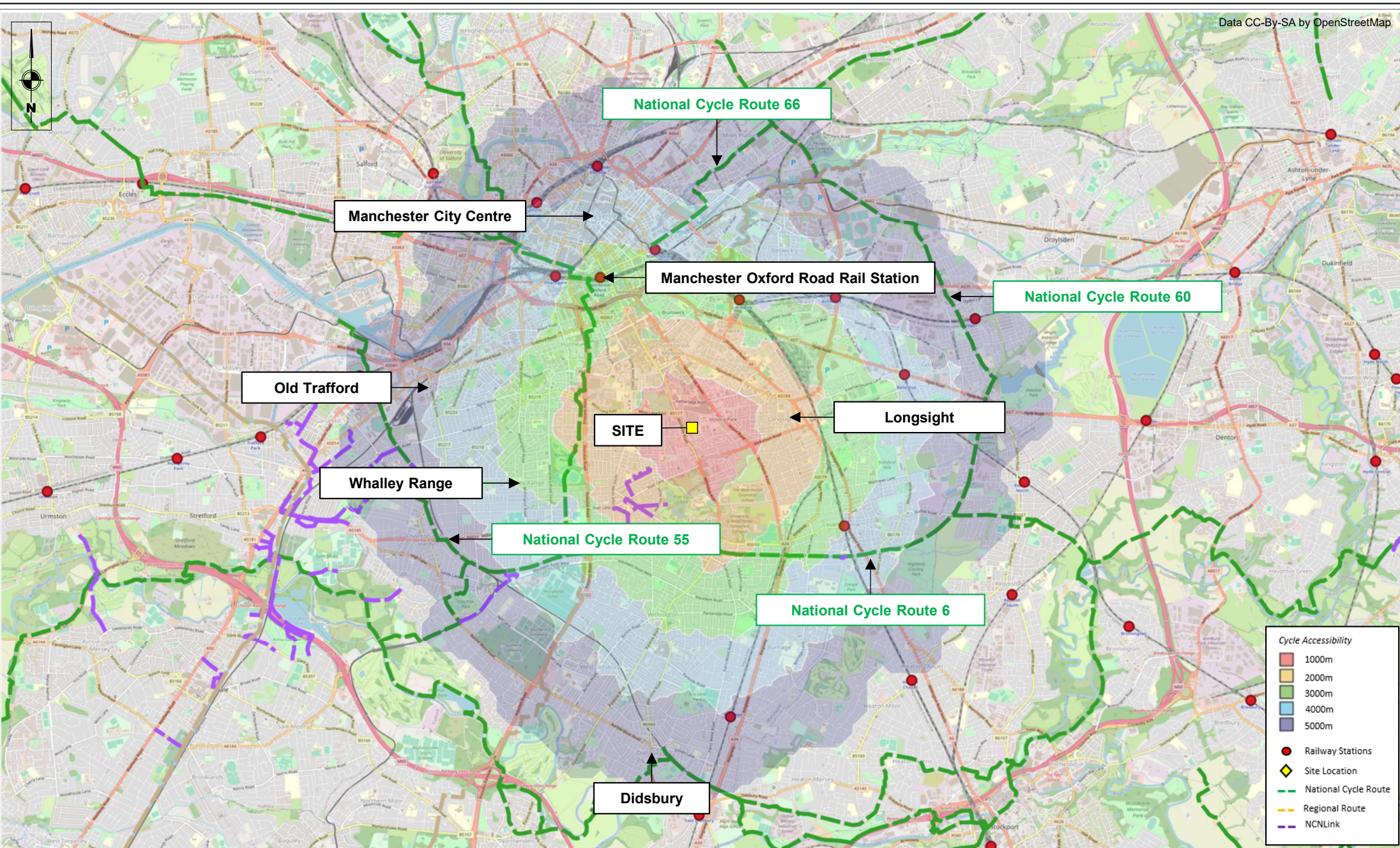
- 6.1.1 Hydrock have been instructed by AA Projects to provide transportation assistance in relation to a proposed extension development to the existing Xaverian College site in Rusholme.
- 6.1.2 The planning application is for the demolition of an existing building and the erection of a new science building teaching block in the south-west corner of the site on an existing car park area. The building will be approximately 1250sqm in size.
- 6.1.3 The sustainability assessment shows that the site is very accessible by non-car modes.
- 6.1.4 As there will be no increase in the number of students or staff at the site, there will be no increase in vehicular traffic.

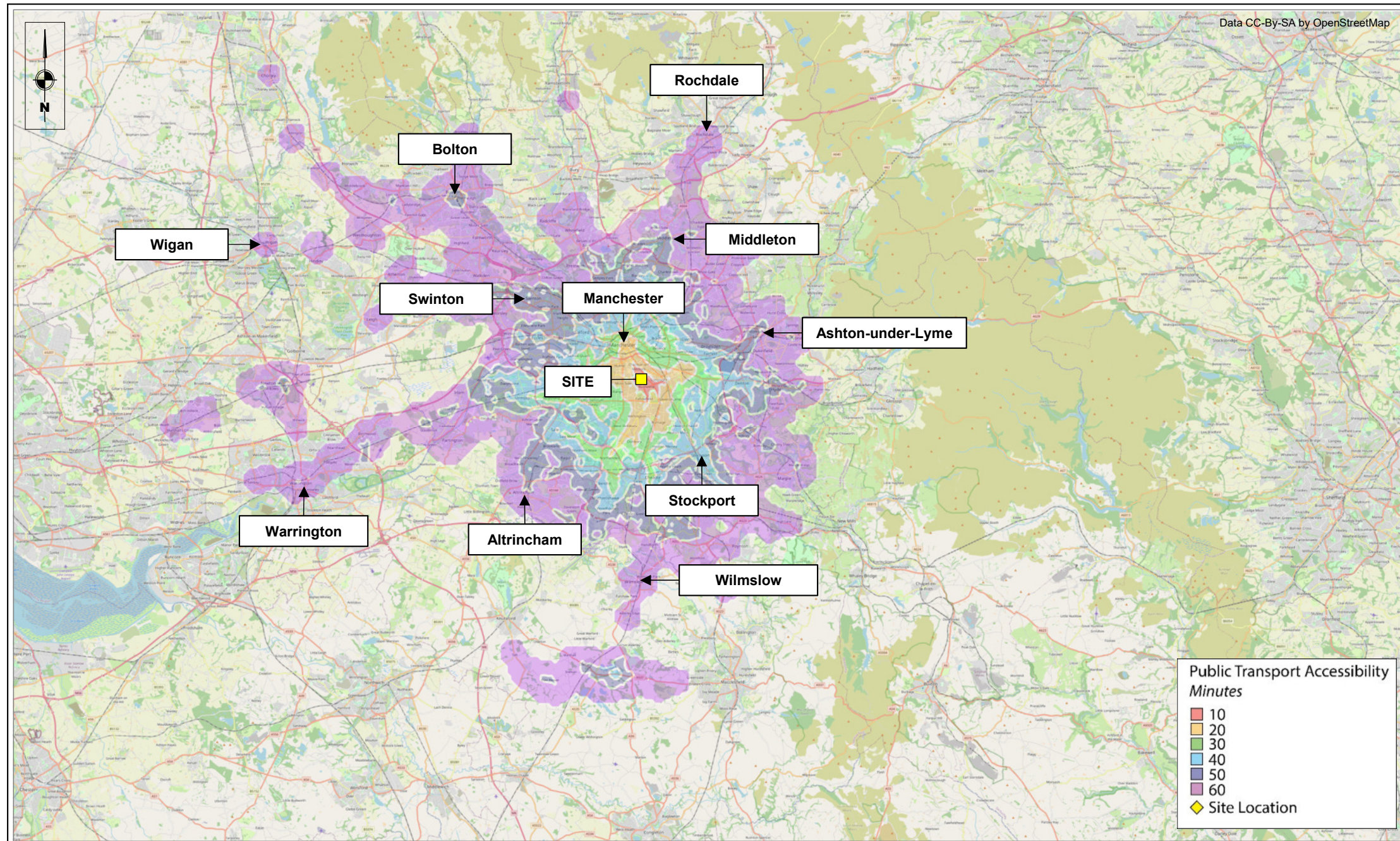
6.2 Conclusion

- 6.2.1 It is concluded that the development proposals are acceptable in highways and transport terms. There are no highways or transport related reasons upon which a refusal of the planning application for the proposals would be justified.

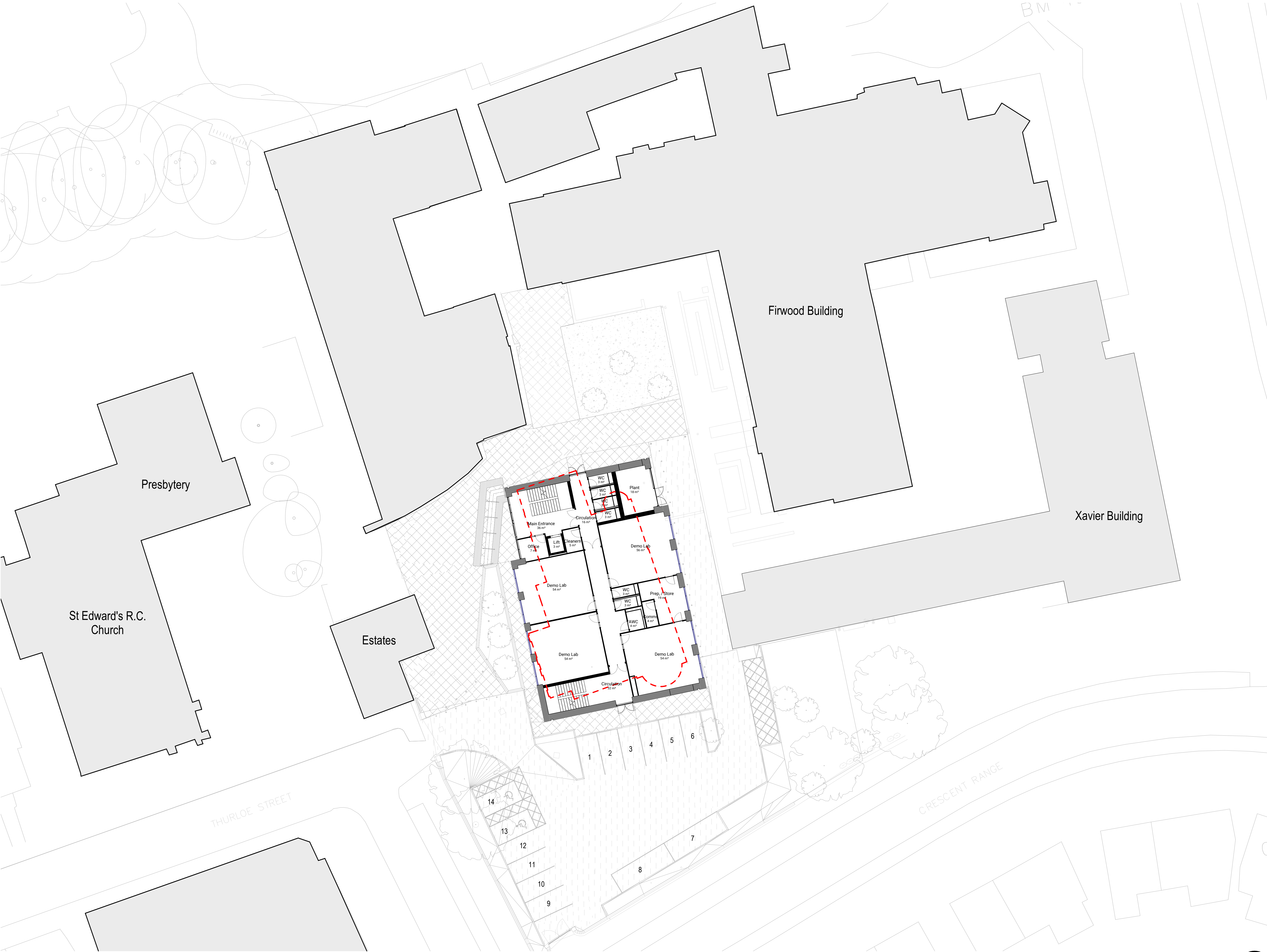
Appendix A Accessibility Figures







Appendix B Proposed Site Layout



Proposed Site Plan - Planning
1 : 200

Notes
The Contractor is to check all dimensions and conditions on site before commencing. Do not scale from this drawing.
This drawing remains the copyright of POZZONI Architecture Ltd.

Scale Bars		TO BE USED ONLY AS GUIDANCE			
1:100	mm	0	1000	2000	3000
1:200	mm	0	1000	2000	3000
1:500	m	0	10	20	30
1:1250	m	0	10	20	30

Site Plan Legend:

Proposed three-storey science block
(footprint approx. 525m²)
Denotes extent of demolition (existing
Sunbury building)

P02	Planning Submission Issue	LY	12.05.23
P01	Draft planning issue	LY	28.04.23
Rev	Description	By	Date

Client

Xaverian College

Job

Xaverian College - Science Building

Drawing

Proposed Site Plan

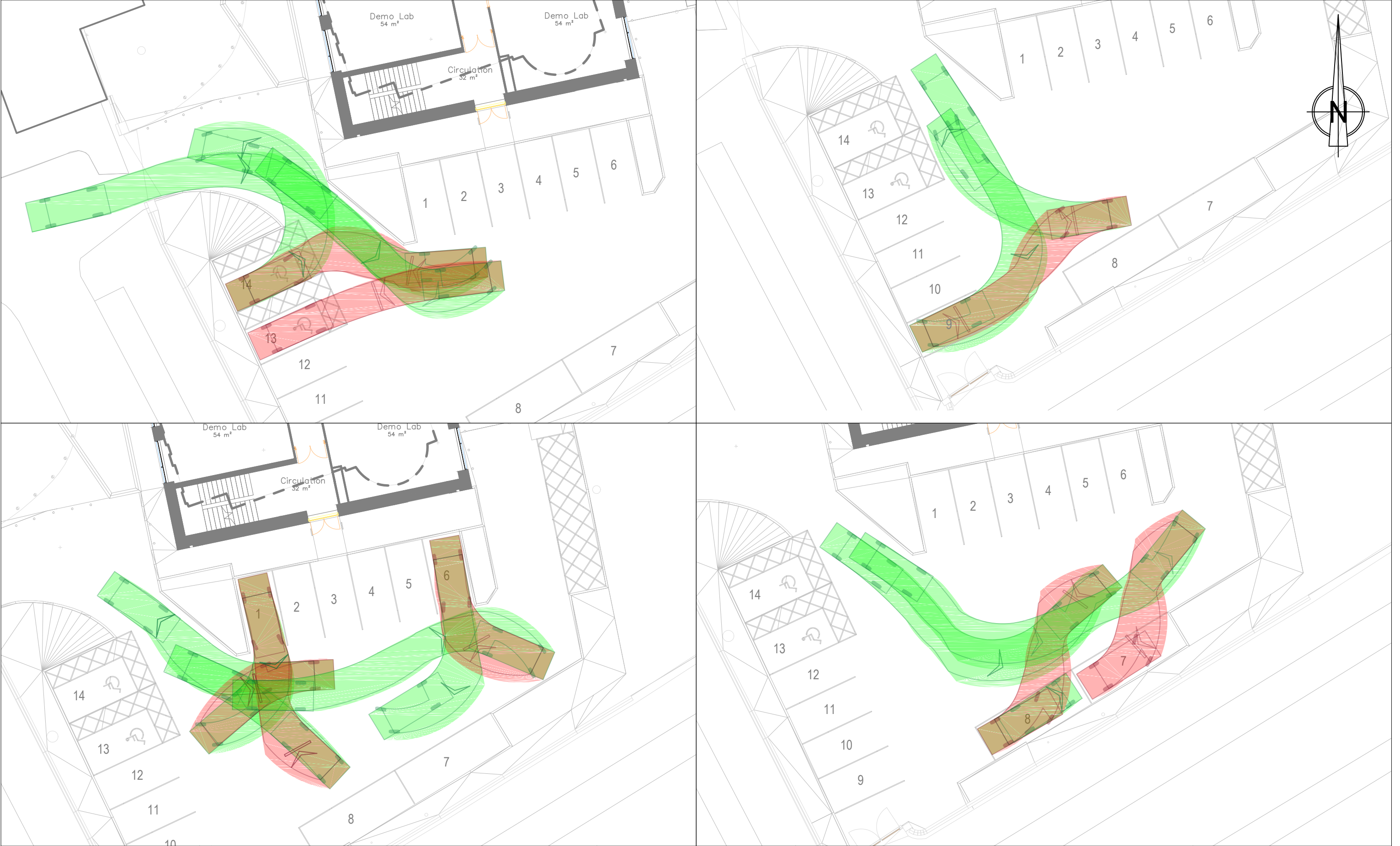
6037	1220	Rev	P02
6037- POZ- XX- 00- D- A-1220		Scale	@ A1
Date	01/03/2023	As indicated	
PO Control	CP	Approved	CM
Planning	Tender	Construction	
Design	Contract	As Built	

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11/05/2023 11:03:56

Appendix C Swept Path Analysis



KEY PLAN		NOTES (CONTINUED)		REVISIONS (CONTINUED)		REVISIONS		TITLE			
	VEHICLE BODY IN FORWARD GEAR	5.072m 1.872m 1.525m 0.310m 1.831m 4.00s 5.900m Large Car (2006) Overall Length Overall Width Overall Body Height Min Body Ground Clearance Max Track Width Lock to lock time Kerb to Kerb Turning Radius	1) THIS DRAWING IS FOR DISCUSSION PURPOSES ONLY AND NOT FOR CONSTRUCTION 2) THE CONTENT OF THIS DRAWING WILL REQUIRE FURTHER WORK SUCH AS A ROAD SAFETY AUDIT AND DETAILED DESIGN 3) THIS DRAWING IS BASED ON 3RD PARTY SURVEY INFORMATION			Hydrock CLIENT XAVERIAN COLLEGE		SWEPT PATH ANALYSIS - INTERNAL LAYOUT - LARGE CAR			
	VEHICLE BODY IN REVERSE GEAR				PROJECT		HYDROCK PROJECT NO. 11742-TMBI		SCALE @ A3 NTS		
	VEHICLE CHASSIS IN FORWARD GEAR				P01.01	FIRST ISSUE	PROJECT		STATUS DESCRIPTION	STATUS	
	VEHICLE CHASSIS IN REVERSE GEAR				HT	11.05.2023	CP	11.05.2023	NBR	11.05.2023	FOR INFORMATION
				REV	REVNOTES	XAVERIAN COLLEGE, RUSHOLME		DRAWING NO.	REVISION		
				DRAWNBY	DATE-D	CHKBY	DATE-C	APPLY	DATE-A	11742-HYD-XX-XX-DR-TP-0004-0001	P01.01



KEY PLAN

- VEHICLE BODY IN FORWARD GEAR
- VEHICLE BODY IN REVERSE GEAR
- VEHICLE CHASSIS IN FORWARD GEAR
- VEHICLE CHASSIS IN REVERSE GEAR

Pumping Appliance
Overall Length 7.900m
Overall Width 2.500m
Overall Height 3.300m
Min Body Ground Clearance 0.140m
Track Width 2.500m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 7.750m

NOTES (CONTINUED)

1) THIS DRAWING IS FOR DISCUSSION PURPOSES ONLY AND NOT FOR CONSTRUCTION
2) THE CONTENT OF THIS DRAWING WILL REQUIRE FURTHER WORK SUCH AS A ROAD SAFETY AUDIT AND DETAILED DESIGN
3) THIS DRAWING IS BASED ON 3RD PARTY SURVEY INFORMATION

REVISIONS (CONTINUED)

REVISIONS					
P01.01	FIRST ISSUE				
HT	11.05.2023	CP	11.05.2023	NBR	11.05.2023
REV	REVNOTES	DATE-D	CHKBY	DATE-C	APPLY
	DRAWNBY	DATE-D	CHKBY	DATE-C	DATE-A

CLIENT
XAVERIAN COLLEGE

PROJECT
XAVERIAN COLLEGE, RUSHOLME

TITLE
SWEEP PATH ANALYSIS - INTERNAL LAYOUT - FIRE TENDER

HYDROCK PROJECT NO. 11742-TMBI	SCALE @ A3 NTS
STATUS DESCRIPTION FOR INFORMATION	
DRAWING NO. 11742-HYD-XX-XX-DR-TP-0004-0002	STATUS S0
REVISION P01.01	

Appendices