

Greenheys, Manchester Science Park (MSP)

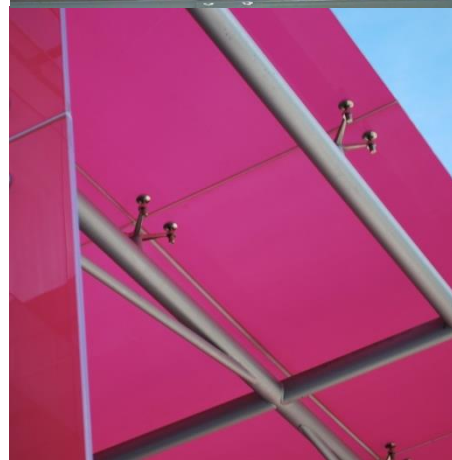
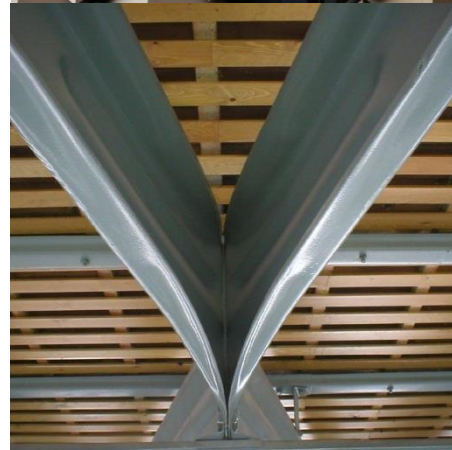
Waste Management Strategy

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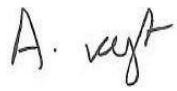


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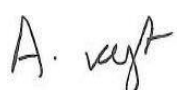
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1.0 Introduction

1.1 Introduction

1.1.1 Curtins has been appointed on behalf of Bruntwood Sci-Tech Ltd to provide traffic and transportation advice in relation to the redevelopment of the existing Greenheys Building within Manchester Science Park (MSP).

1.1.2 The description of development is as follows:

“Construction of a 7-storey building comprising up to 17,249sq. m (GIA) commercial floorspace (Use Class E), plus plant level above; in addition to associated cycle parking, hard and soft landscaping, access and servicing and other associated works.”

1.1.3 The site would comprise 130,413 sq. ft. net internal area (NIA) and 195,227 sq. ft. gross external area (GEA).

1.1.4 The proposed site plan is included in **Appendix A**.

1.2 Purpose of This Report

1.2.1 This Waste Management Strategy (WMS) has been prepared to consider the potential refuse and recyclable waste volumes of the proposed development. This WMS also provides details of the collection arrangements.

1.3 Structure of the Report

1.3.1 Following this introduction, **Section 2** of the report provides a comprehensive description of the site location, including existing use and servicing arrangements, and Highway Network surroundings whilst relevant local and national waste policy is summarised in **Section 3**.

1.3.2 **Section 4** contains the waste forecasting methodology used to establish the likely refuse generation associated with the development proposals, providing details of recycling, waste management and collection procedures. The report is summarised and concluded in **Section 5** with MCC waste pro forma included as **Appendix B**.

2.0 Site Location and Highway Layout

2.1 Site Location

- 2.1.1 The site is bounded by Greenheys Lane to the west and Pencroft Way to the east. Directly to the north of the site lies the former McDougall sports centre that was used by the University of Manchester (the building is now vacant and disused), and to the south lies the new BASE building development. Further to the east of the site lies the Bright Building.
- 2.1.2 Manchester Science Park (MSP) is a strategic employment area on the Oxford Road Corridor, which in turn is an innovation district south of Manchester City Centre running the length of Oxford Road from St Peter's Square to Whitworth Park. The concentration of major education, health and commercial uses spanning the length of the Oxford Road Corridor means that it operates as a functional extension of Manchester City Centre.
- 2.1.3 A Strategic Regeneration Framework (SRF) for MSP was endorsed by Manchester City Council (MCC) in 2014 and subsequently updated in 2018, with the aim to meet market demand and continue to drive economic output in key knowledge sectors. Within the SRF, it is the intention to close Pencroft Way. This will enable further enhancement to the public realm between the proposed Greenheys building and the Bright building, additionally acting as a circulation space to connect to the BASE development.
- 2.1.4 The SRF has recently been updated with an addendum to the 2018 SRF. MCC Executive approved the SRF addendum on 22 March 2023. The addendum does not change the overarching principles set out within the 2018 SRF, but provides more detail on the proposed Greenheys Building development and the development principles across the Framework area to reflect the Council's Green and Blue Infrastructure Strategy (2022) and target to be net zero carbon by 2038.
- 2.1.5 **Figure 2.1** illustrates the site in a more local context relating to the local highway network.

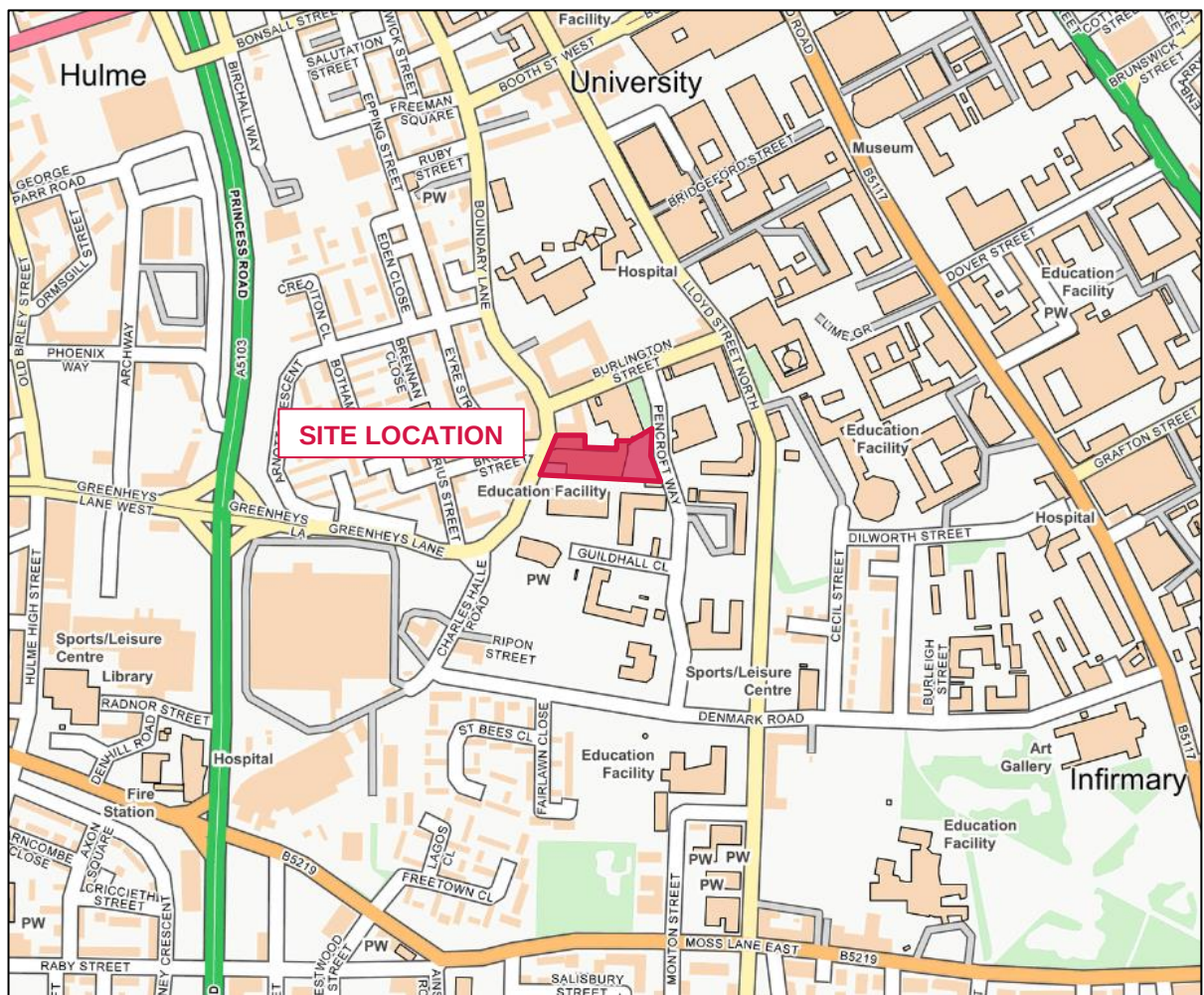


Figure 2.1 – Site Location in Relation to the Local Highway Network

(Source: OS Maps, 2022)

2.2 Existing Use

- 2.2.1 The site is currently occupied by the existing two-storey Greenheys building, two terraced houses and storage space, and a single storey 1960s building located within the McDougall site. The existing Greenheys building consists of a single storey construction to the east elevation and a double storey building located on the western half of the site.

2.3 Surrounding Highway Network

Greenheys Lane

- 2.3.1 Forming the western boundary of the site, Greenheys Lane commences at a major signalised junction with the A5103 Princess Road and extends in an easterly direction for approximately 500m. At its eastern terminus, it branches off into Boundary Lane towards the north and Burlington Street towards the north-east.

- 2.3.2 Princess Road is one of the key arterial routes into Manchester City Centre, in addition to providing a connection to the M56 and M60. Greenheys Lane therefore provides an excellent link to the local and strategic highway network.
- 2.3.3 In the vicinity of the site, the road comprises a single carriageway with a width of c. 8.5m, with one lane in either direction. There are wide footways of circa 2m on both sides of the road, which are complete with dropped kerbs and tactile paving at certain crossing points. Pedestrian infrastructure is in good condition along the road, as the footways are well-maintained, and there is also a pedestrian refuge island further to the south-west of the site to facilitate crossing in a safe manner. Towards the south-west of the site, there is also a guard rail fence to separate the footway from the road.
- 2.3.4 Greenheys Lane is well-lit with streetlights at regular intervals and is subject to a speed limit of 20mph. This is enforced by physical traffic calming measures such as the narrowing of the road at certain points. On-site observations have indicated that traffic flows are relatively light, and queuing occurs infrequently.
- 2.3.5 Double yellow parking restrictions (no waiting at any time) are also present on both sides of the road for the entirety of its length, except in areas where parking is permitted, such as along the shop fronts west of the site and ahead of the bus stop where there is a disabled parking spot. Parking in this area is free for up to 1 hour, with no return within 1 hour, on Mondays to Fridays between 08:00 – 18:00.
- 2.3.6 Along most of Greenheys Lane, there is also a cycle lane in both directions. There is also a bus lane further to the south-west of the site where the road meets the A5103 Princess Road, in addition to advanced cycle stop lanes at the major junctions.
- 2.3.7 The road also has two pairs of bus stops which host regular bus services to Chorlton, Wythenshawe, Manchester Airport, and Piccadilly Gardens. Most of the bus stops have good infrastructure such as a flag and pole, shelter, seating, and timetable information, whereas the northbound bus stop directly west of the site only has a flag and pole and timetable information.

Pencroft Way

- 2.3.8 Forming the eastern boundary of the site, Pencroft Way extends on a north to south alignment through the MSP campus for an approximate length of 420m. The road commences at a priority junction off Burlington Street and terminates at a priority junction with Denmark Road.
- 2.3.9 Pencroft Way comprises a single carriageway with an average width of 7m. There are also footways on both sides of the carriageway, some of which are separated from the road with a wide grass verge, to provide pedestrian access to the individual MSP buildings. These footways also have dropped kerbs. In the vicinity of the MSP campus, the road is well-lit with street lighting at regular intervals.

- 2.3.10 There are some parking restrictions in place in the form of double and single yellow lines (no waiting between 08:00 – 16:00), but there are also areas where short-stay on-street parking is designated (free for 3 hours, with no return within 1 hour, from Mondays to Fridays between 08:00 – 17:00).
- 2.3.11 Within the MSP campus, the road is subject to a speed limit of 20mph, which is enforced in the form of physical traffic calming measures such as speed humps and painted road markings.
- 2.3.12 On-site observations suggest that Pencroft Way is lightly trafficked for large parts of the day, and the only activity largely relates to the MSP customers / visitors and MSP servicing operations.

Burlington Street

- 2.3.13 Burlington Street lies further to the north of the site and commences at a priority junction with Higher Cambridge Street and Lloyd Street North, then extends for a length of circa 200m to the west before reaching a bend in the road where it continues as Greenheys Lane. It also provides access to Pencroft Way east of the Site which is one of the main entrances into the MSP campus.
- 2.3.14 The road comprises a two-way, single carriageway with a width of circa 7m, and wide footways of 2m-wide on both sides of the road. The footways are also complete with dropped kerbs and are well-maintained for the entire length of the road. Burlington Street is well-lit, with street lighting at regular intervals.
- 2.3.15 Burlington Street is bordered by a several MSP buildings, a residential block, and Burlington Square, and recently completed apartment building. The road is subject to a speed limit of 20mph and has double yellow parking restrictions on both sides of the road. In permitted areas, there are some on-street parking areas. Parking is free for up to 3 hours, with no return within 1 hour, on Mondays to Fridays between 08:00 – 18:00.

3.0 Waste Management Policy

3.1 Introduction

- 3.1.1 When developing refuse strategies, it is important to be cognisant of the national and local waste management policies. The following section of the report provides an overview of the policies relevant to the Proposed Development.

3.2 Waste Management Plan for England (January 2021)

- 3.2.1 The Waste Management Plan for England, to be read in combination with the Resources and Waste Strategy issued in 2018, sets out measures to eliminate avoidable plastic waste, tackle confusion over household recycling, and make sure that those responsible for creating polluting products pay for the costs of that pollution.
- 3.2.2 The Resources and Waste Strategy identifies five strategic ambitions:
- “To work towards all plastic packaging placed on the market being recyclable, reusable or compostable by 2025;
 - To work towards eliminating food waste to landfill by 2030;
 - To eliminate avoidable plastic waste over the lifetime of the 25 Year Environment Plan;
 - To double resource productivity by 2050; and
 - To eliminate avoidable waste of all kinds by 2050.”
- 3.2.3 The next figure, included on the Waste Management Plan, identifies the evolution of *The Waste Hierarchy through* the years, its current status, and the goal for 2030:

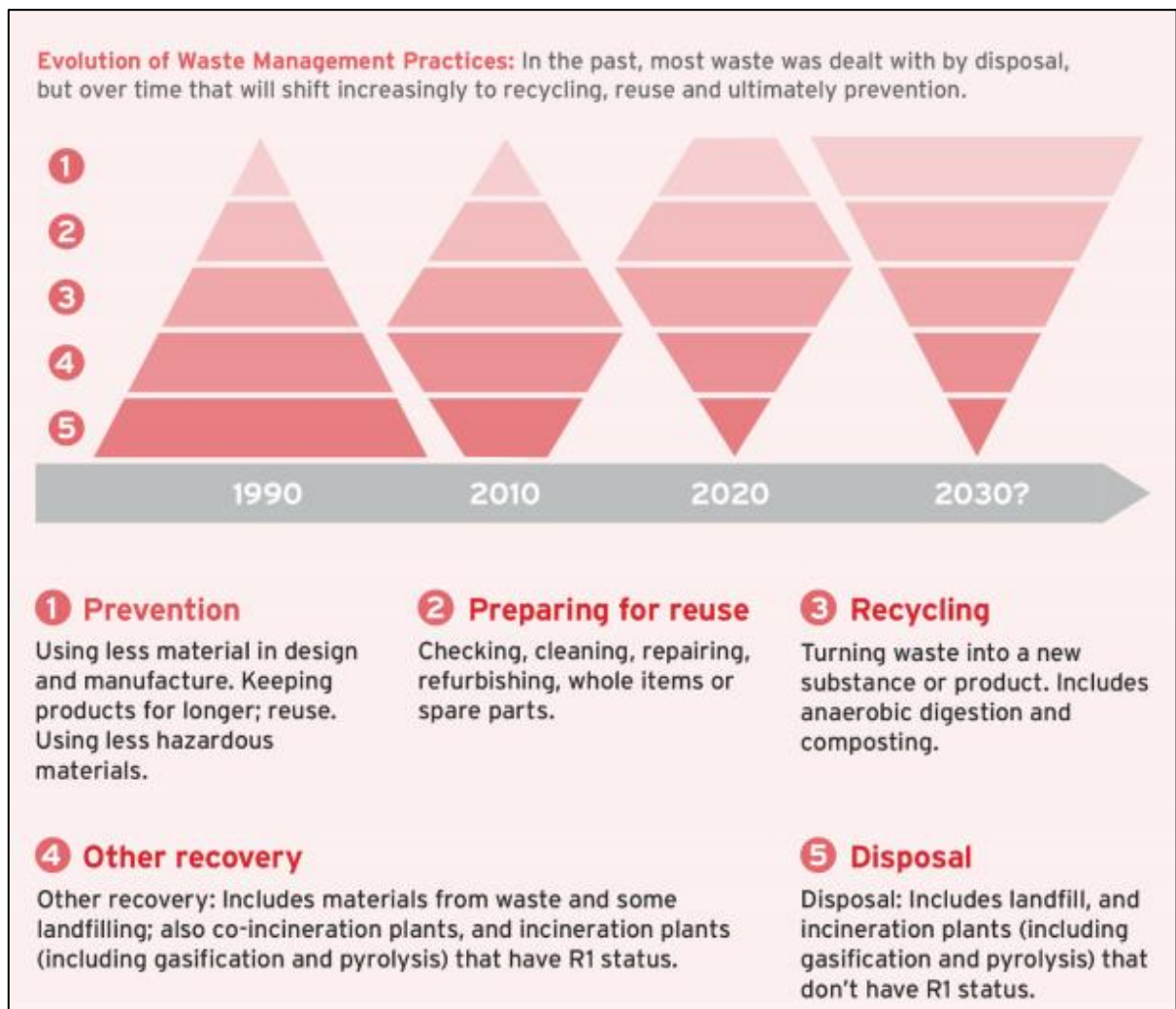


Figure 3.1 – Evolution of Waste Management Practices.

(Source: Defra)

3.2.4 The 2030 hierarchy gives top priority to preventing waste in the first place. When waste is created, it gives priority to preparing it for re-use, then recycling, then recovery, and last of all disposal (e.g. landfill).

3.2.5 This Waste Management Strategy (WMS) adheres to the above guidance, prioritising recycling.

3.3 Waste Management in Buildings – Code of Practice (BS 5906:2005)

3.3.1 To complement the Waste Management Plan for England, a National Code of Practice (BS 5906:2005) document has been developed and this provides guidance relating to waste forecasting for new developments.

3.3.2 This WMS has consulted the weekly arisings included within this Code of Practice, to further support the estimated waste generation set on MCC's GD 04 waste guidance for the anticipated office uses of the site.

3.4 Building Regulations

- 3.4.1 In addition to the above guidance, all new developments must comply with the requirements set out in Part H6 of the Building Regulations 2015 which states that adequate means of storing solid waste should be provided and adequate means of access should be provided for people in the building to the place of storage.
- 3.4.2 This WMS proposes waste storage areas which comply with the requirements set by Building Regulations document.

3.5 Controls on Animal By-Products

- 3.5.1 Organic waste recycling is subject to DEFRA's Controls on Animal By-Products - Guidance on regulation (EC) 1069/2009 and accompanying implementing Regulation (EC) 142/2011, enforced in England by the Animal By-Products (Enforcement) (England) Regulations 2011.
- 3.5.2 The regulations predominantly relate to food waste. These regulations state that if the volume of waste is over 20kg, it must be stored and labelled in a special container and will be collected by a licensed carrier, who records all stages of the waste movement.
- 3.5.3 It is the occupier's responsibility to ensure that a licensed waste company is arranged, and that it complies with the regulation.

3.6 Waste Storage and Collection Guidance for New Developments (GD 04 – v6.00)

- 3.6.1 At a more local level, Manchester City Council has prepared a Waste Storage and Collection Guidance Note which contains minimum standards to be considered for the storage and collection of waste. This guidance follows the recommendations set on the Waste Management Plan for England, strongly encouraging and promoting high levels of quality recycling.
- 3.6.2 The note states that all planning applications for new developments and conversions must include a Waste Management Strategy that includes:
- An estimated storage area for the waste produced by the development, including office uses;
 - Details of internal and external stores for both waste and recycling; and
 - Location of the proposed collection point and details of the route the collection will take.
- 3.6.3 The following sections of this report provide additional information on each of the above points whilst the pro forma document, contained at the rear of the guidance note, is included as **Appendix B**.

4.0 Waste Forecasting and Strategy

4.1 Introduction

- 4.1.1 A key element of national and local policy is to ensure that new developments maximise recycling while minimising waste generation. It is important to ensure that developments facilitate high recycling rates by providing convenient, attractive and simple means to achieve Government's goals.
- 4.1.2 The primary element of the proposed development will be laboratory space. For waste calculation purposes, it is estimated that these uses will occupy circa 1,860m² per floor, equating to up to 8 Containment Level 2 (CL2)-ready biology laboratory spaces of approximately 230m² each. It is considered that the second floor could provide a collaborative space and potentially a collection of shared scientific amenity spaces for smaller businesses.
- 4.1.3 The proposed site layout is provided in **Appendix A** to the rear of the report.
- 4.1.4 Since laboratory uses are sui generis, Bruntwood Sci-Tech commissioned a report to analyse the waste generated over a two-week period in October 2022 by a variety of occupiers at Alderley Park.
- 4.1.5 Part of Bruntwood Sci-Tech, Alderley Park offers more than 92,000m² of high specification lab space, a range of scientific services and a comprehensive programme of business support for start-ups and scale-ups. It is also home to a community of over 60 established and 150 pre-start up companies. Although at a larger scale, this park is considered comparable in nature of businesses to the proposed development and a suitable benchmark to establish the likely waste generation of the proposed development.
- 4.1.6 The report includes the Standard Industrial Code (SIC) of each company analysed and the waste is categorised based on the European Waste Code (EWC). The full report is included in **Appendix C**.
- 4.1.7 Further to this, for robustness and to cover all scenarios, the waste estimations also consider 3,000m² of office use. This figure represents circa 17% of the total area of the proposed occupiable GIA of the development.

4.2 Waste Forecast

- 4.2.1 The waste forecast of the laboratory element of the development is based on the Alderley Park Waste report mentioned above. This report gauged the waste volumes from start-up companies to larger corporate bodies. This report did not consider areas, as waste generated by laboratories is based primarily on the nature of the work.
- 4.2.2 The chosen companies have been split into 4 categories. The first is a main producer, the second a medium producer, the third a small producer, and the last company just moved out of the incubator lab into a standalone entity. The SIC (standard industrial code) is included on the report to help

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Table 4.1 – Alderley Park Waste Study Results.

- 4.2.3 For calculation purposes and as a robust worst-case, it has been considered the proposed waste store will cater for the worst case observed on the Alderley Park study from **Table 4.1** with an additional 25% to cater for any eventuality.
- 4.2.4 The waste forecast for the office element has been calculated based on the estimations recommendations set by the Waste Storage and Collection Guidance for New Developments (GD04), Version 6.00, which recommends 2,600l per 1,000m² of gross floor space.
- 4.2.5 An initial recycling percentage of 50% for the office uses has been estimated for calculation purposes. The recycling rate can be updated upon review of the actual recycling rates following occupation.
- 4.2.6 Based on these requirements, **Table 4.2** forecasts the waste volume generated by the proposed development:

Proposed Development	
Laboratory Use	
Waste Stream	Refuse Volume
Yellow Bagged Waste	1,024kg
Sharp Safes Waste	200kg
Waste Contaminated Glass	38kg
Laboratory Use Total	1,262kg
Office Use	
Waste Stream	Refuse Volume (3,000m ²)
Non-recyclable Waste	3,900l
Dry Mixed Recycling	2,925l
Glass Recycling	975l
Office Use Total	7,800l

Table 4.2 – Weekly Waste Volume Forecast.

4.3 Collection Frequency

- 4.3.1 It is envisaged that the collection service will be provided by a private collector for all uses, with the laboratory uses served by a hazardous waste collection specialist.
- 4.3.2 The frequency of collection will be established once the building is occupied and the actual waste generation is known, but it is anticipated to be weekly.

4.4 Bin Types

- 4.4.1 The laboratory infectious or hazardous waste will be stored in three different streams:
- Yellow bagged waste: Contains infected waste such as: Soiled, anatomical, cytotoxic and laboratory waste in general;
 - Sharp safes waste: Contains needles and cut glasses; and
 - Waste contaminated glass.
- 4.4.2 The yellow bagged waste will be stored in 240l yellow containers, whilst sharp safes waste will be stored in small receptacles of up to 14kg per item. The waste contaminated glass will be stored in 30l boxes.
- 4.4.3 Non-infected waste as a result of regular activities of a lab or office will be stored in regular bins. The three main streams are:

- General, non-recyclable waste;
- Dry Mixed Recycling (Comprising paper and cardboard, plastic and aluminium); and
- Glass Recycling.

4.4.4 Given the potential volumes involved for the use of the proposed development, the most suitable containers for the general waste and recycling streams would be 1,100l Eurobins.

4.4.5 The following **Table 4.3** summarises the required waste containers per stream and use for the proposed development. This table has been produced following the recommendations set by MCC's GD04 Waste Guidance Document where applicable (office uses), assuming the waste collection frequency summarised above in **Section 4.3** and described in detail in the following **Chapter 4.6**.

Proposed Development	
Laboratory Use	
Waste Stream	Number of bins
Yellow Bagged Waste	5 x 240l wheelie bin
Sharp Safes Waste	15 x 14l receptacle
Waste Contaminated Glass	2 x 30l boxes
Office Use	
Waste Stream	Number of bins
Non-recyclable Waste	4 x 1,100l
Dry Mixed Recycling	3 x 1,100l
Glass Recycling	1 x 1,100l
Office Use Total	8 x 1,100l

Table 4.3 – Number of Required Bins.

- 4.4.6 Based on the table above, it is considered that the total number of bins required to store the weekly waste generated by all office and commercial uses (retail and F&B) of the proposed development, and based on the collection frequency described in **Section 4.3** are 8 x 1,100l bins and 5 x 240l bins. These will be complemented by 15 x small receptacles and 2 x 30l boxes.

4.5 Waste Management Strategy – Internal Arrangements

- 4.5.1 The laboratories have been designed to Containment level 2 (CL 2) standards. Good practices for containment and contaminant controls are designed in the base build along with higher floor to ceiling heights to accommodate additional building services, enhanced mechanical ventilation systems, specialised waste management systems and a better performing superstructure to reduce internal vibration.
- 4.5.2 The proposals for the development include an independent waste store at the ground floor level, located to the north of the service yard.
- 4.5.3 The proposed waste storage room measures c.136m² and is capable of accommodating a total of c.42 1,100l bins plus generous manoeuvring space. On this basis, is considered to provide sufficient room to accommodate and operate the total number of bins included above in **Table 4.3**, with plenty of additional space should this be required in any eventuality.
- 4.5.4 The waste store will be clearly segregated with different rooms for laboratory waste and non-hazardous waste (office use). These independent stores will also have independent access points.
- 4.5.5 It is envisaged that initially at least 50% of the bins in the office waste store would be dedicated to recycling. This percentage could be increased at any point based on actual recycling rates.
- 4.5.6 The management company and customers of the different companies occupying the building would be in charge of monitoring the recycling rates and promote actively high recycling rates within the employees. This could be achieved by giving information on the benefits of recycling and information on how to segregate.
- 4.5.7 The waste storage areas will be well lit and ventilated, including access to a water feed. The floor will comprise an easily cleaned surface and adequate drainage will be provided.
- 4.5.8 The management company would be responsible for keeping the waste storage facilities clean and safe. They would also be responsible for cleaning the bins on a regular basis and arranging for replacing damaged bins when necessary.

4.6 Waste Management Strategy – Collections

- 4.6.1 **Drawing 081888-CUR-XX-00-D-TP-06001** provides details of the location and size of the waste stores, collection point and routes between the stores and the collection point, whilst **Drawing 081888-CUR-XX-00-D-TP-05001** provides the swept path analysis of a large refuse vehicle.
- 4.6.2 The collection point for all uses is located within the service yard, in close proximity to the proposed waste stores and to the west of the main building.
- 4.6.3 It is envisaged that a private collector would be appointed to collect the waste for all uses. As different uses are expected at the proposed development, the service is likely to be provided by different companies. However, any appointed company would follow the strategies described within this report.
- 4.6.4 For calculation purposes, it has been estimated that the proposed development would have a weekly collection frequency for all uses.
- 4.6.5 However, based on the variable nature of both uses and that this report includes robust calculations as a worst-case scenario, it is considered that the frequency of these collections will be arranged after occupation, based on the actual waste generation volumes.
- 4.6.6 The management company and customers will be in charge of monitoring bin usage and adjusting the collection frequency accordingly.
- 4.6.7 The waste operatives from the private collection companies will collect the bins from the bin store since it is located in close proximity to the collection point / loading area.
- 4.6.8 Once the bins have been emptied, containers would be carried immediately back to the bin store by operatives of the private waste collection companies.
- 4.6.9 Furthermore, it is important to highlight that since collections are arranged with private contractors, timings could be agreed upon to minimise disturbance to amenity in the area.

5.0 Summary and Conclusions

5.1 Summary

- 5.1.1 Curtins has been appointed on behalf of Bruntwood Sci-Tech Ltd to provide traffic and transportation advice in relation to the redevelopment of the existing Greenheys Building within Manchester Science Park (MSP).
- 5.1.2 The proposed ground floor layout plan is included in **Appendix A**.
- 5.1.3 This Waste Management Strategy (WMS) has been prepared to consider the potential refuse and recyclable waste volumes, including hazardous waste, and for all uses of the proposed development. This WMS also provides details of the collection arrangements.
- 5.1.4 The waste forecast has been calculated based on the recommendations set by the Waste Storage and Collection Guidance for New Developments (GD04), Version 6.00 and research carried by Bruntwood Sci-Tech.
- 5.1.5 An initial recycling percentage of 50% has been estimated for calculation purposes.
- 5.1.6 The report demonstrates that the proposed development will have waste stores capable of accommodating the bins required. The waste will be segregated into different stores, to avoid mixing hazardous and clinical waste with regular, non-hazardous waste.
- 5.1.7 Waste will be collected by private contractors. Based on the different natures of the waste streams, it is considered likely that waste will be collected by different contractors.
- 5.1.8 All commercial uses of the development are anticipated to be served by weekly collections. The collection frequency is subject to be updated following occupation, as typically the waste generated by laboratory uses varies significantly based on the final occupier.
- 5.1.9 The collection point for all uses is located within the service yard at ground floor, in close proximity to the proposed waste stores.

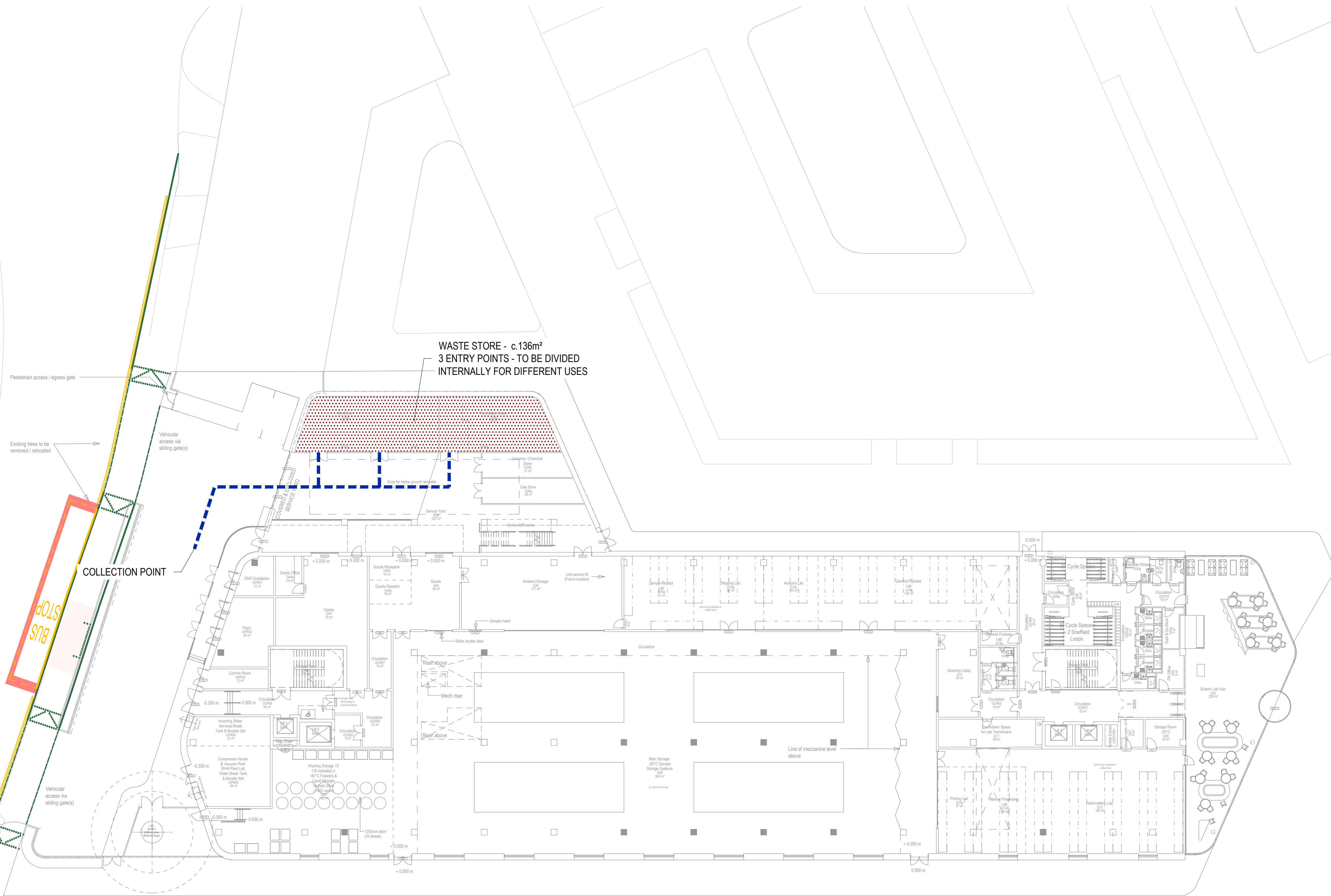
5.2 Conclusions

- 5.2.1 From a Waste Management perspective, there are no reasons why the development proposals should not be granted planning approval.

Drawings

Drawing 81888-CUR-XX-00-D-TP-06001 – Waste Management Strategy

Drawing 81888-CUR-XX-00-D-TP-05001 – (Swept Path Analysis) 11.2m Large Refuse Vehicle



GENERAL NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
2. DO NOT SCALE THIS DRAWING. ANY AMBIGUITIES, OMISSIONS AND ERRORS ON DRAWINGS SHALL BE BROUGHT TO THE ENGINEERS ATTENTION IMMEDIATELY. ALL DIMENSIONS MUST BE CHECKED / VERIFIED ON SITE.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
4. FOR GENERAL NOTES REFER TO DRAWING.
5. THE CONTENT OF THIS DRAWING IS FOR INDICATIVE INFORMATION ONLY AND NOT SUITABLE FOR CONSTRUCTION PURPOSES.
6. BASED ON LAYER BDP'S LAYOUT: 'GRE-BDP-ZZ-00-DR-A-20-001-P11'

KEY:  WASTE STORE
 BIN ROUTE

Rev:	Description:	Date:	By:	Chkd:
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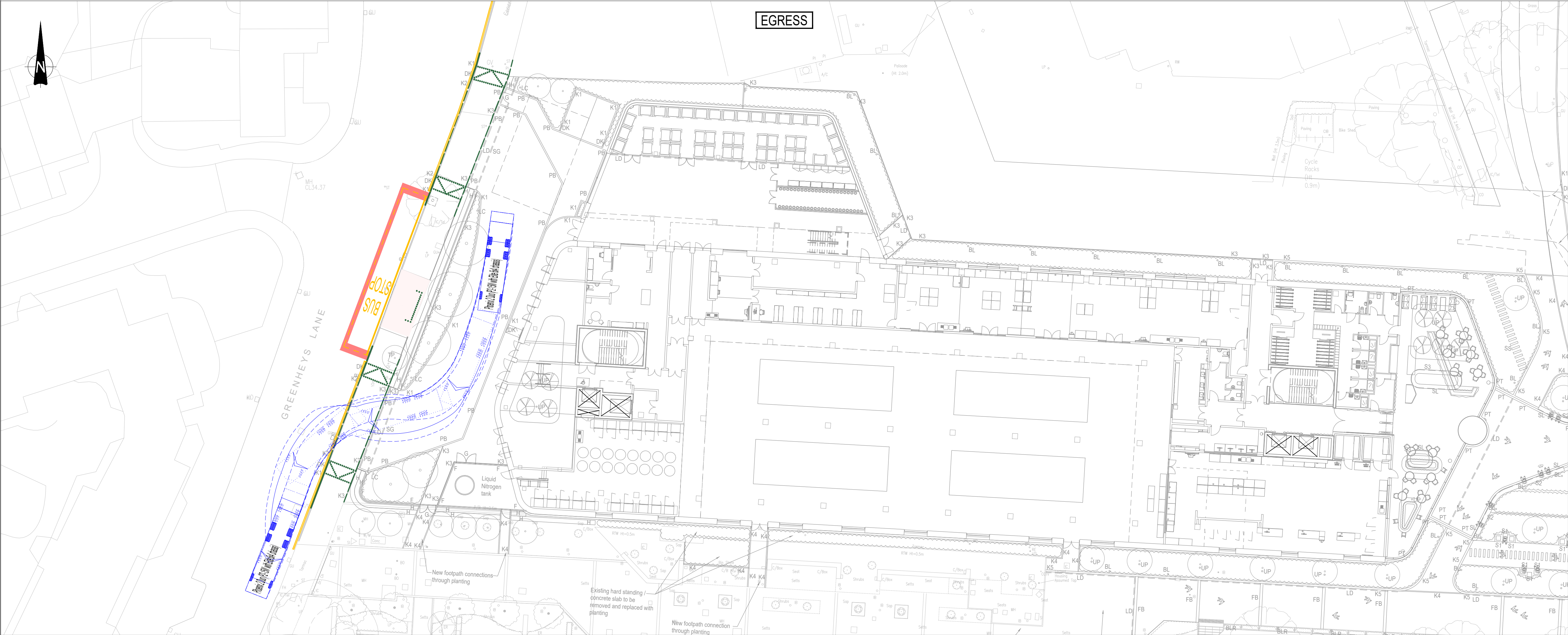
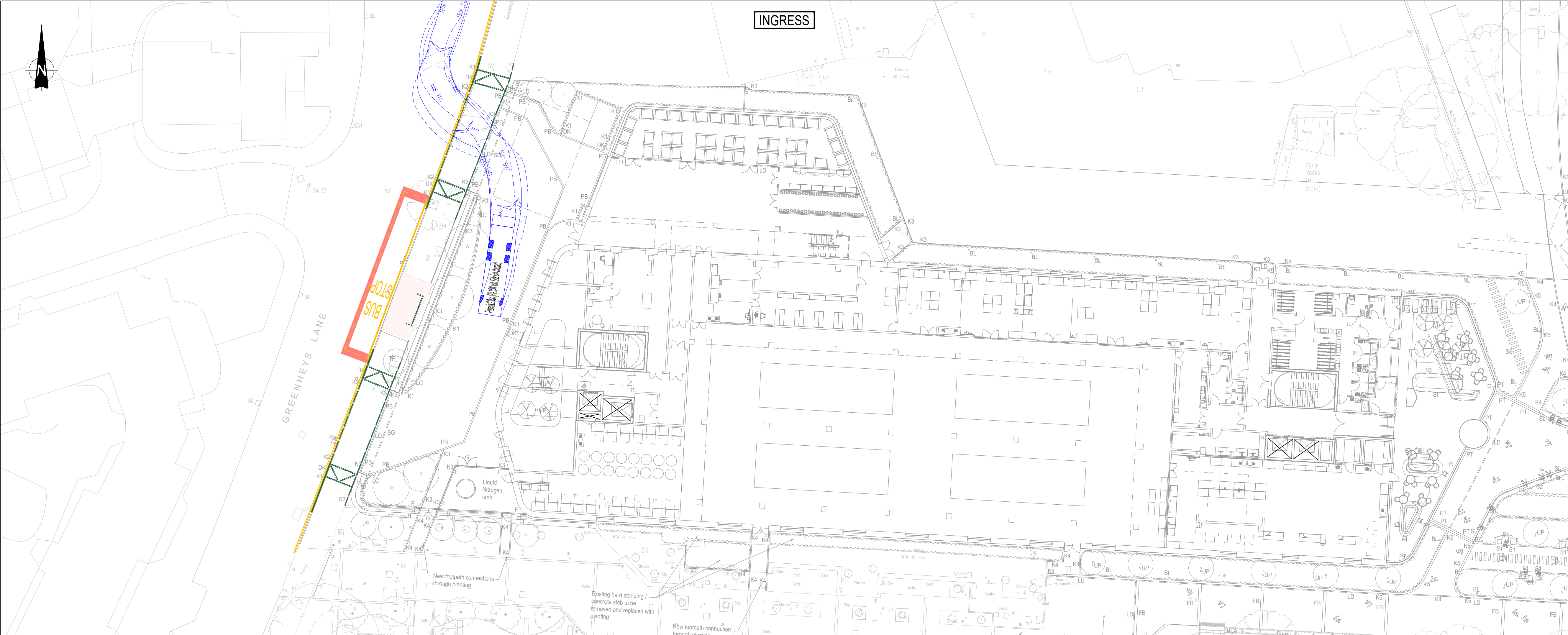
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Status: PRELIMINARY

Project: GREENHEYS - MANCHESTER SCIENCE PARK

Orig Title: WASTE MANAGEMENT STRATEGY

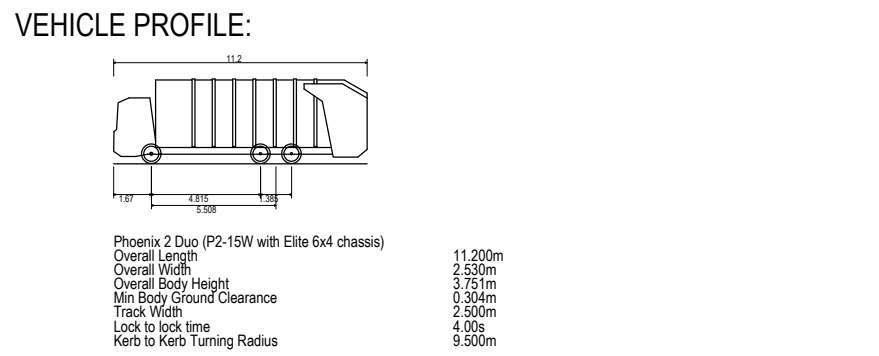
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Scale:	1:250						
Project No:	Originator:	Volume:	Level:	Type:	Role:	Category / Number:	Rev:
81888 - CUR - XX - 00 - D - TP - 06001 - P01							



- GENERAL NOTES:
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
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 - BASED ON LAYER BDP'S LAYOUT: 'GRE-BDP-ZZ-XX-DR-L-00-101-P03'
 - BASED ON LAND SURVEY WHERE AVAILABLE

KEY:

- PROPOSED RAISED KERB
- PROPOSED FLUSH KERB / BACK OF FOOTWAY
- PROPOSED ROAD MARKINGS



P03	Site layout updated	13/02/23	DD	AV
P02	Site layout updated	30/11/22	DD	AV
Rev:	Description:	Date:	By:	Chkd:

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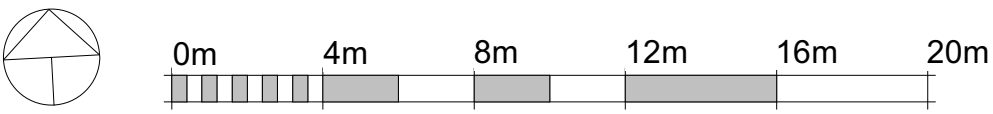
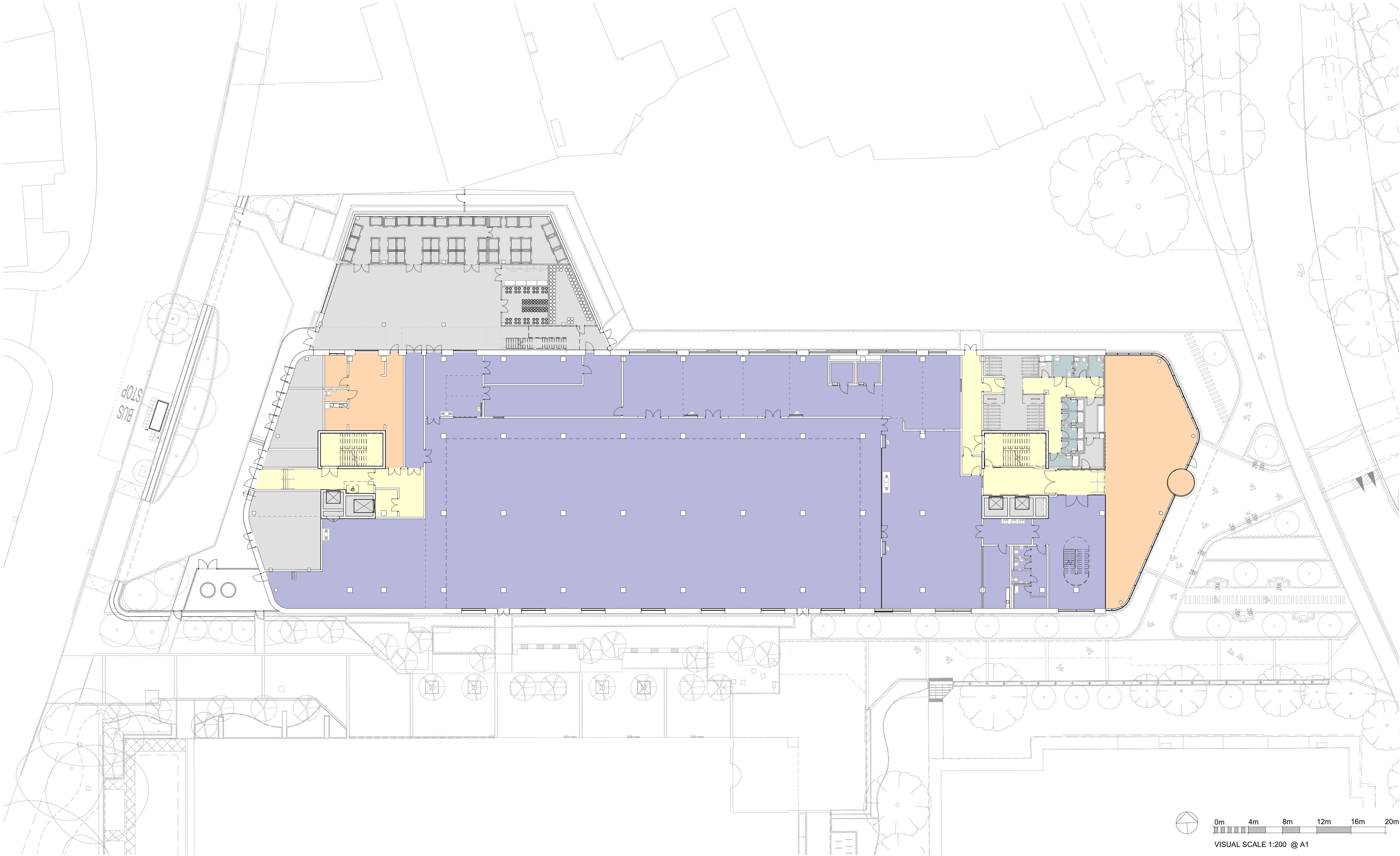
Project: GREENHEYS - MANCHESTER SCIENCE PARK

Orig Title:

SWEPT PATH ANALYSIS
11.2m REFUSE VEHICLE

Size:	Date:	Drawn By:	Designed By:	Checked By:			
A1	30/06/22	DD	DD	AV			
Scale:	1:250						
Project No:	Originator:	Volume:	Level:	Type:	Role:	Category / Number:	Rev:
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Appendix A – Development Proposals



VISUAL SCALE 1:200 @ A1

BUILDING DESIGN PARTNERSHIP SHALL HAVE NO RESPONSIBILITY FOR ANY USE MADE OF THIS DOCUMENT OTHER THAN FOR THAT WHICH IT WAS PREPARED AND ISSUED.
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DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE FOLLOWING BEFORE WORK COMMENCES.
• THE COM DESIGN ISSUES REGISTER
• THE BDP RISK SERIES OF DRAWINGS
• THE PROJECT COM RISK REGISTER

NOTES
Subject to design development, survey, consultant input & statutory approval.

REVISION	DESCRIPTION	DRAWN	CHECKED	DATE
P02	General Update	KK	GW	18.04.23
P01	First Issue	KK	GW	06.04.23

REVISION	DESCRIPTION	DRAWN	CHECKED	DATE
P02	General Update	KK	GW	18.04.23
P01	First Issue	KK	GW	06.04.23

REVISION	DESCRIPTION	DRAWN	CHECKED	DATE
P02	General Update	KK	GW	18.04.23
P01	First Issue	KK	GW	06.04.23

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MSP Greenheys (Private & Confidential)

REF: 0000000000
P3001624

DRAWING TITLE
General arrangement - Ground floor
Planning

SCALE
@ A1
1 : 200

DATE FIRST ISSUED
Apr 23

DRAWING NO.
GRE-BDP-ZZ-00-DR-A-20-900

REVISION
P02



Appendix B – MCC Waste Pro Forma

Appendix E Proforma for Planning Applications



Planning Application – Waste Management Strategy

Planning Application Number: TBC

Date Submitted: 18/04/23

Estimated volumes/ m² required by the development

Low Rise Domestic

Waste Types	Capacity Required (litres)	Number of bins required per household	Confirm what is to be provided
General refuse	140 / 240	1 x wheeled bin	
Pulpable Recycling	140 / 240	1 x wheeled bin	
Mixed Recycling	140 / 240	1 x wheeled bin	
Garden Waste	140 / 240	1 x wheeled bin	
Food Waste	23	1 x 23 litre caddy	

High Rise Apartment Developments

	Yes/No - how much space has been provided?
0.43m ² has been provided per apartment for the container space. Space to manoeuvre and access containers individually has also been provided so that each container can be accessed and removed for collection individually.	

Commercial Developments

Please state number of bins you propose, showing calculations where appropriate.

General Waste -	4 x 1100l bin (office use)
Pulpable Recycling -	3 x 1100l bin (office use)
Mixed Recycling -	1 x 1100l bin (office use)
Food Waste -	5 x 240l bin for yellow bagged waste, 15 x 14l receptacle for sharp safes waste, 2 x
Industrial Waste -	30l boxes for waste contaminated glass (lab use)

Has / will a contract be obtained with a licenced waste carrier?	☒
--	-------------------------------------

Mixed Use Developments

Are the stores for residential and commercial separate from each other?	☒
---	-------------------------------------

Internal Stores (Residential and Commercial)

Please provide details of internal stores / segregation of waste and recycling.

--

Storage Areas for Waste Containers (Residential and Commercial)

Please provide details of container stores, attaching plans if appropriate.

The laboratories have been designed to Containment level 2 (CL 2) standards. Good practices for containment and contaminant controls are designed in the base build along with higher floor to ceiling heights to accommodate additional building services, enhanced mechanical ventilation systems, specialised waste management systems and a better performing superstructure to reduce internal vibration.

The waste store will be clearly segregated with different rooms for laboratory waste and non-hazardous waste (office use). These independent stores will also have independent access points.

Cleaners will collect waste internally before taking it to the bin store at the ground floor. It is envisaged that a private collection company would collect the waste weekly, subject to revision following occupation. The bin store has been sized to accommodate this frequency of collection.

Ensure all bins in the store are accessible	☒
Ensure recycling facilities are as easy to access as general refuse	☒

Please confirm details of waste store ventilation and hygiene / cleaning proposals

Ventilation -	Consideration has been given to appropriately ventilate the waste storage facilities. Details have been provided in relevant documentation.
Hygiene -	Storage rooms will be constructed in impermeable materials. The management company will be responsible of cleaning the facilities.

Please provide details of who will be responsible for placing the bins at the collection point and returning them to the store / property promptly e.g. resident / management company

The management company and the staff of the commercial units
--

Please ensure that you have attached:

Detailed plans of waste stores	☒
Location plans showing stores	☒
Location plans showing the proposed collection point and the route the collection vehicle will take	☒

Please ensure that you have completed this form in accordance with our GD04 Waste Storage and Collection Guidance for New Developments

Appendix C – Alderley Park Waste Study

Waste/Logistics breakdown at AP

Date: 21/10/2022

Terms of reference:

SIC (standard industrial code)

EWC (European waste code)

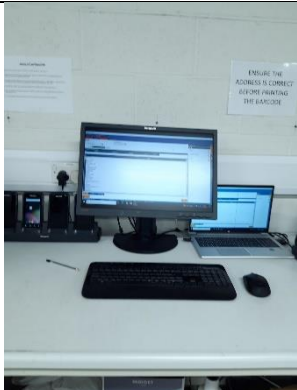
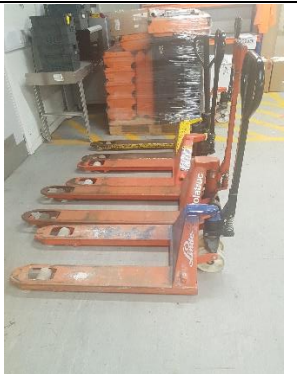
In this report we will gauge the waste volumes from start-up companies to larger corporate bodies. This report doesn't look at square footage; it is more on the nature of the work. You may have 6000 square foot and produce 1 bag each week of clinical waste, or you could control 1000 square foot and produce 1 bag every day plus other by-products. This in itself makes it so difficult to estimate volumes.

So I have split the companies chosen into 4 categories. The first is a main producer, the second is a medium, the third is a small producer, and lastly just moved out of the incubator lab into a standalone entity. To help put the customers in to some order I will use each companies SIC (standard industrial code) so that we can see the nature of their company and I will give the nature of their waste. The customer's name will be used to gauge their standing in the business world and to show that the name may not match the volume of waste expected. In this way we should be able to gauge what volumes could be created by understanding the kind of work that could take place in an area. The snapshot created is over 2 weeks. If we require further data, I can take it over a longer period.

Secondly we will look at the equipment that is required to supply a logistics service from Nitrogen to mail. In this section we will have a photograph of the equipment and a brief description.

					Week 1			Week2		
Production	Company	SIC code	Waste formats (EWC)	Yellow bagged waste 7Kg per bag	Sharp Safes waste from 1Kg - 14Kg per item	Waste contaminated glass 30 ltr box 6Kg per box		Yellow bagged waste 7Kg per bag	Sharp Safes waste from 1Kg - 14Kg per item	Waste contaminated glass 30 ltr box 6Kg per box
				item (Kg)	item (Kg)	item (Kg)		item (Kg)	item (Kg)	item (Kg)
Main	The University of Manchester	72110	180103 (bio) 180202 (vet)	117 (819)	41 (152)	4 (24)		69 (483)	33 (103)	1 (6)
Main	Sygnature	72110	180103 (bio) 180106 (chem)	9 (63)	11 (48)	1 (6)		10 (70)	7 (17)	1 (6)
Medium	AstraZeneca	72110	180103 (bio) 180106 (chem) 180108 (cyto) 180104 (non haz)	34 (238)	36 (129)	0 (0)		21 (147)	18 (159)	0 (0)
Medium	Gentronix	72110	180108 (cyto)	30 (210)	12 (31)	0 (0)		21 (147)	22 (51)	0 (0)
Small	Apex	72190	180103 (bio) 180106 (chem) 180108 (cyto)	6 (42)	1 (2)	5 (30)		2 (14)	6 (12)	4 (24)
standalone	Perfusion	72110	180103 (bio) 180202 (vet)180106 (chem)	0 (0)	1 (14)	0 (0)		0 (0)	1 (14)	0 (0)
standalone	Pencil	72110	180103 (bio)	3 (21)	0 (0)	0 (0)		2 (14)	0 (0)	0 (0)
		72110	Research and experimental development on biotechnology							
		72190	Other research and experimental development on natural sciences and engineering							

The idea of some of the equipment required to run a successfully logistics department. The first table is the general logistics needs; the second table is the addition for the scientific side of the business.

	X-Ray machine To ensure post and parcels are scanned to protect staff and businesses. We ensure are customers safety while working in sensitive areas.		Tracking and bar coding system Parcels and all goods are processed through our bar-coding system. The system log's tracking numbers. So we can check time and date of all item entering the site. This lists there deliver point, time of delivery and signature of recipient.		Franking Machine Royal Mail. Standard, signed and special delivery post and small parcels are franked and sent same day
	Barcode press Barcodes are attached to lab coats before sending out to the laundry for industrial laundering. The barcodes will have the company's own unique bar-code.		Pallet truck Used to move large items. As goods enter the logistics they are put on to pallets and maneuvered in to the processing area. Also used to move large equipment around the building and also used to deliver.		Delivery Trolleys Used to deliver mail and smaller items to the customer. Generally used for the delivery service on a milk round basis.
	Mail York Used to sort parcel rounds (milk rounds) and courier services.		Mail sort and Flam cabinet (pictured together for illustration purposes) The pigeon holes are allotted to a company and deliver to the customer. The flam cabinet is used for any delivery of a product that is of a solvent based content that is awaiting delivery and the customer is not available.		

Scientific

		Dry Ice service The 1st photograph is of the units the Dry Ice is delivered to site in and are removed from the BOC vehicle via FLT. Each unit holds 30 bags of 10kg. The second photograph is of one type of unit used to deliver the dry ice to the customer. This is a service that is better prepared for delivery outside due to ventilation.			Gas vessels These vessels contain various gases (Nitrogen, Argon and CO₂) and can be required for various work in the laboratory. They are filled by a rigid tanker coming to site and filled in the open air.
		Cylinders (flammable liquids, combustible, corrosive, oxidising material, toxic material or compressed gas cylinders should be kept separate from LPG). The 1st photograph shows a cylinder bank at work and the second shows the space required to work in the area.			Liquid nitrogen Pictured are what is commonly called onion dewars. These units are used to deliver liquid nitrogen to the customers.

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