University of Manchester: The Relocation of the Limes, Fallowfield Campus

Design and Access Statement



Buttress

December 2024

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1 Executive Summary

Development Context

The existing Limes Building is a Catering and Facilities Management unit located in the centre of the Fallowfield campus. Fallowfield Campus masterplanning has historically identified an opportunity to relocate 'The Limes' to a new facility designed to meet needs and free up the site currently occupied by it.

Studies have previously taken place to look into the feasibility in 2015. Today's brief, schedule of accommodation and stakeholder mix has developed from this proposal. In Autumn 2022 RLB reviewed the cost plan that had previously been developed. Progress being made on the procurement of a DBFO partner for the Fallowfield campus has accelerated the requirement to find an alternative location for the facility, and so a project to deliver the relocation is now established.



Existing Limes Building



N

Key

Existing Site

Proposed Site

The Vision







The scheme looks at relocating the existing Limes facility to a different site, combining the University's Catering Central Processing Unit (CPU), Facilities Management Unit (FMC) and Residences Team to form a facility consisting of catering facilities, staff accommodation, workshops and store.

Catering - Central Processing Unit (CPU)

The University's Catering team offer exceptional hospitality, superb food and exciting menus for catered meetings and events across the University Estate. All of the menus feature innovative freshly prepared dishes developed by their team of chefs.

The UoM have operated a Central Processing Unit (CPU) for many years to supply the main food and beverage outlets across the University campus and a wide range of Hospitality catering offered by the University of Manchester. CPU's are ideal catering solutions to match the fast changing demands in education catering and they help control the quality of the product as well as improve inventory management.

The best centralised kitchen layouts support the operation's ideal work-flow while also remaining flexible to adjust to future needs. Within that basic work-flow, the layout might vary; with individual cooking areas according to the type of item cooked or cooking method. The ability to adjust to changing production needs and volume is especially important. One day the CPU might be preparing hundreds of boxed lunches, and the next they might be supporting food preparation for a small, upscale event. Transportation access will also be another key consideration to ensure the smooth flow of access to and from the site for catering deliveries.

Facilities Management & Compliance (FMC)

Within the FMC team sits the functions of Maintenance Services unit and the Environmental Services Unit. These teams have different roles at the University.

Maintenance Services

The maintenance team provides responsive and efficient delivery of the day to day maintenance and repair of building and engineering infrastructures across all the campus academic, administrative, commercial and residential buildings.

They carry out this maintenance and repair function by means of internal direct labour, measured term contract and specialist contract labour whilst ensuring the estate is maintained in a safe and compliant condition. It works within the policies, procedures and legislative frameworks and to generic and job specific risk assessments and method statements.

New workshop and staff facilities on the Fallowfield campus will help the unit support the demands of a redeveloped campus.

Environmental Services

Environmental Services consists of the Campus Cleansing Unit and the Landscape Services Unit. The Campus Cleansing Unit is responsible for discharging the University's responsibility in relation to the Environmental Protection Act 1990 (code of practise regarding litter and refuse) across the main campus and service and maintain the various recycling initiatives employed by the University (see here for detailed waste/recycling information).

A Landscape Services team is responsible for the planning and maintenance of landscape areas across the University Estate. They employ a combination of both in-house and external contractors to undertake the necessary works associated with ensuring that the University grounds are as attractive as possible.

The Residences Team

The Residences Team occupy storage space at the existing Limes facility and are responsible for the upkeep of the student residential areas. Their roles range from management of housing white goods to storage of equipment and items for University induction periods.

Design Brief

The brief includes the following elements:

- Central Processing Unit (CPU) for the Catering Services team to include food preparation, food stores, equipment stores, staff changing, administration and welfare facilities.
- Facilties Management and Compliance (FMC) Maintenance Services to contain workshops, stores, staff changing WC provisions, administration and welfare facilities.
- Residences Team: Mainly consisting of storage space and will be sharing welfare facilities with the FMC team.

The proposals set out in this document aim to;

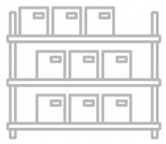
- Create a high-quality distinctive design based on value and functionality.
- Create a scheme that suits the staff wider campus requirements and functions
- Deliver a design that encompasses the building itself, its spaces, materials, finishes, and construction standards.
- Meet the criteria set out for BREEAM 'Very Good' to ensure the proposal integrates sustainability measures.



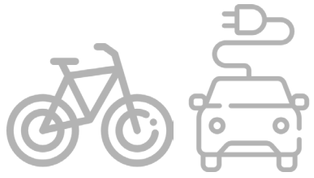
508sqm Catering facility to accommodate catering demands



Workplace accommodation



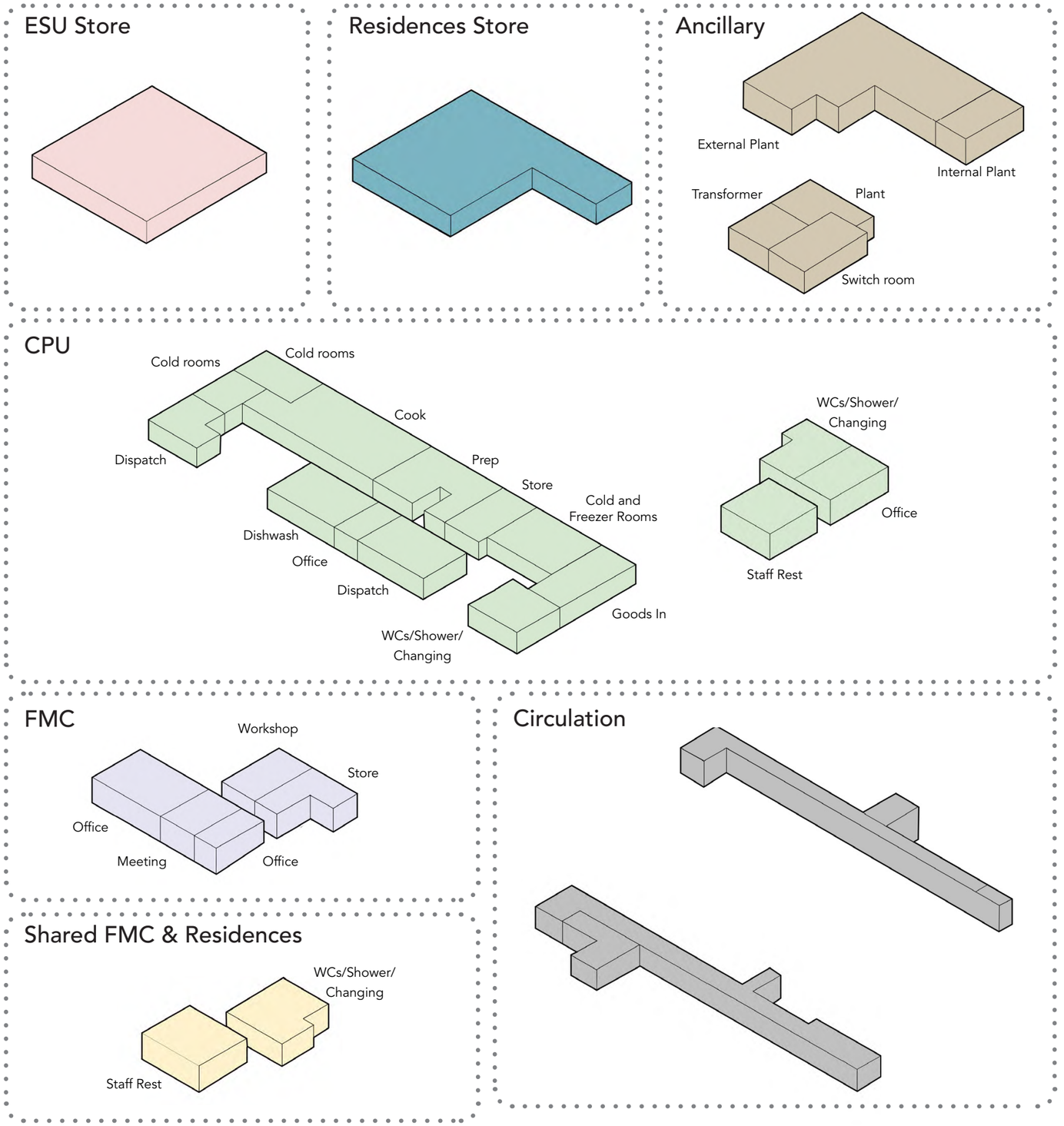
467sqm Store provisions for user requirements



467sqm Store provisions for user requirements

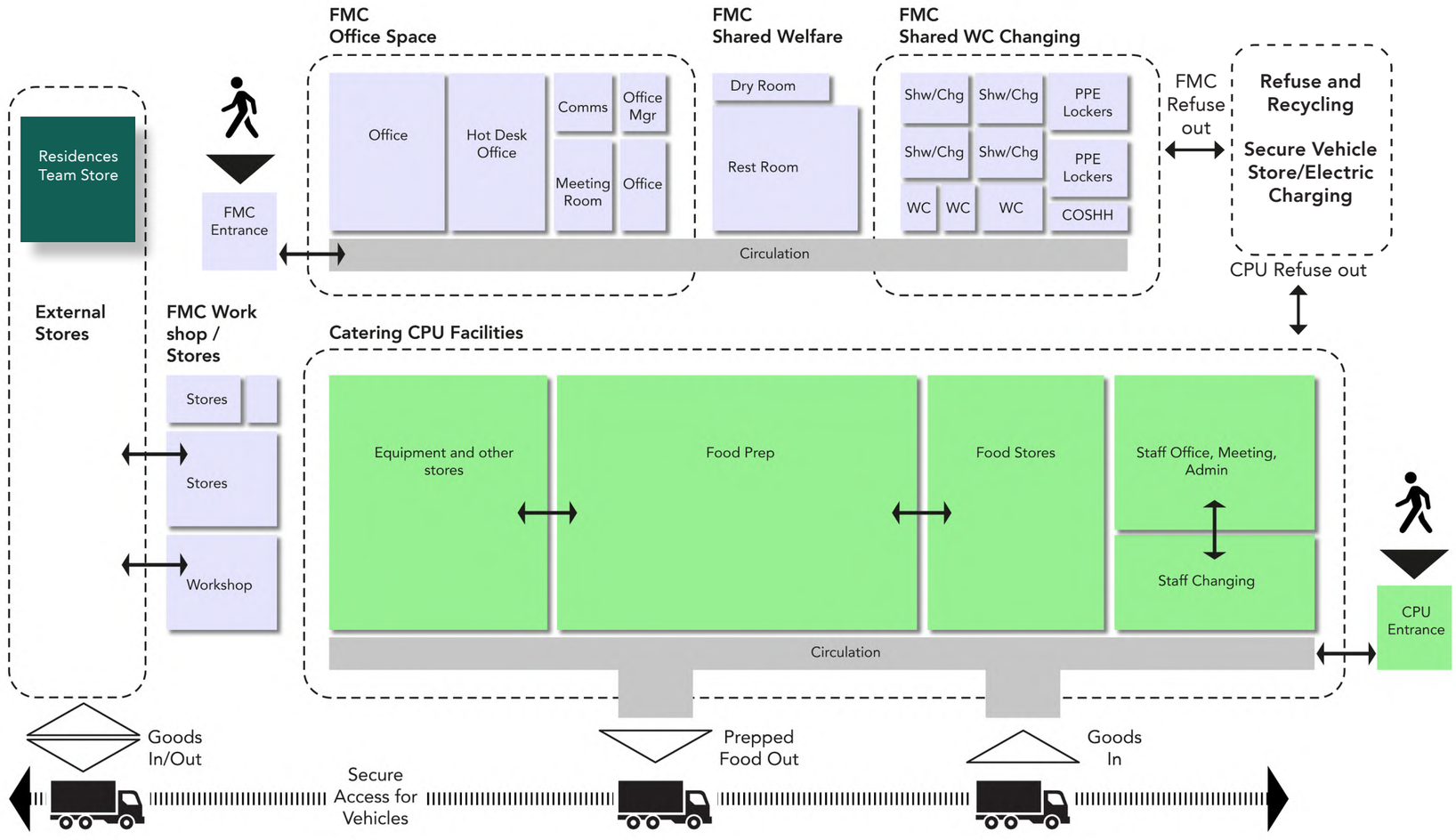


BREEAM 'Very Good'



Brief Arrangement

The following diagram seeks to organise the spatial and functional requirements in conjunction with the CPU, FMC and Residences operational needs. Each separate part of the brief is drawn to comparative scale.



2 Introduction

Purpose of this document

This Design and Access Statement (DAS) has been prepared by Buttress in conjunction with the professional team (listed to the right) to support a full planning application for the new Limes Building for the University of Manchester. The purpose of this document is to set out site analysis, design development and how it can be accessed by all prospective users.

It explains the design principles and concepts that have been applied to the proposal and demonstrates how the proposed development's context has influenced the design.

The statement explains the approach to access how any consultation undertaken in relation to design and how the outcome of these have informed the proposed development.

The site location is shown on plan ref. LIMES-BUT-MS-00-DR-A-04101-Proposed Site Plan (Complete)

This document has been prepared on behalf of the University of Manchester. The following design team have been appointed to develop the proposals within this report;

- Project Manager (RLB)
- Quantity Surveyor (RLB)
- Principal Designer (RLB)
- Structures and Civil (Hydrock)
- MEP (Hydrock)
- Transport (Hydrock)
- Geotechnical (Hydrock)
- Ecology (Hydrock)
- Air Quality (Hydrock)
- Flood Risk (Hydrock)
- Planning (Turleys)
- Landscape strategy (Turleys)
- Fire (Hydrock)
- Acoustics (Dragonfly Consulting)

3 Consultation

Consultation

A series of meetings were arranged to enable the design development. These included the following groups;

The University of Manchester

- Catering Team
- FM Maintenance Team
- Residences Team
- Estates Team

The engagement workshops and site visits with the stakeholder teams have helped shape the design proposals based on the user experience and day to day activities each team carries out.

The proposal has also been designed in tandem with a series of University's policies and procedures to ensure statutory compliance in all key aspects of building ownership and occupancy and to manage a strategy for delivery of appropriate standards and associated recurrent investment requirements the University upholds.

Local Planning Authority

In March 2024, a pre-application meeting was organised with Manchester City Council (MCC).

The overview of the principle of the development was discussed; highlighting that the existing Limes facility will need to be relocated by 2026 as the wider campus site will be getting handed over to accommodate new residential development (as per the outline permission 1 which was granted 19 Jan 2024).

MCC are aware of a previous application for a CPU/FMC facility (submitted in 2015) and noted the upcoming application for a new facility. Presentation to MCC also included a discussion on the project vision, along with the design brief, key drivers, and strategic design approaches.

Public Consultation

The University has engaged with the broader catchment area and shared details of the proposal. This area includes residents along Whitworth Lane, Redshaw Close, and Old Hall Lane.

Further details can be found in the Planning Policy Statement prepared by Turley on behalf of the University to support the planning application for The Limes. This document can be found as a separate standalone report.

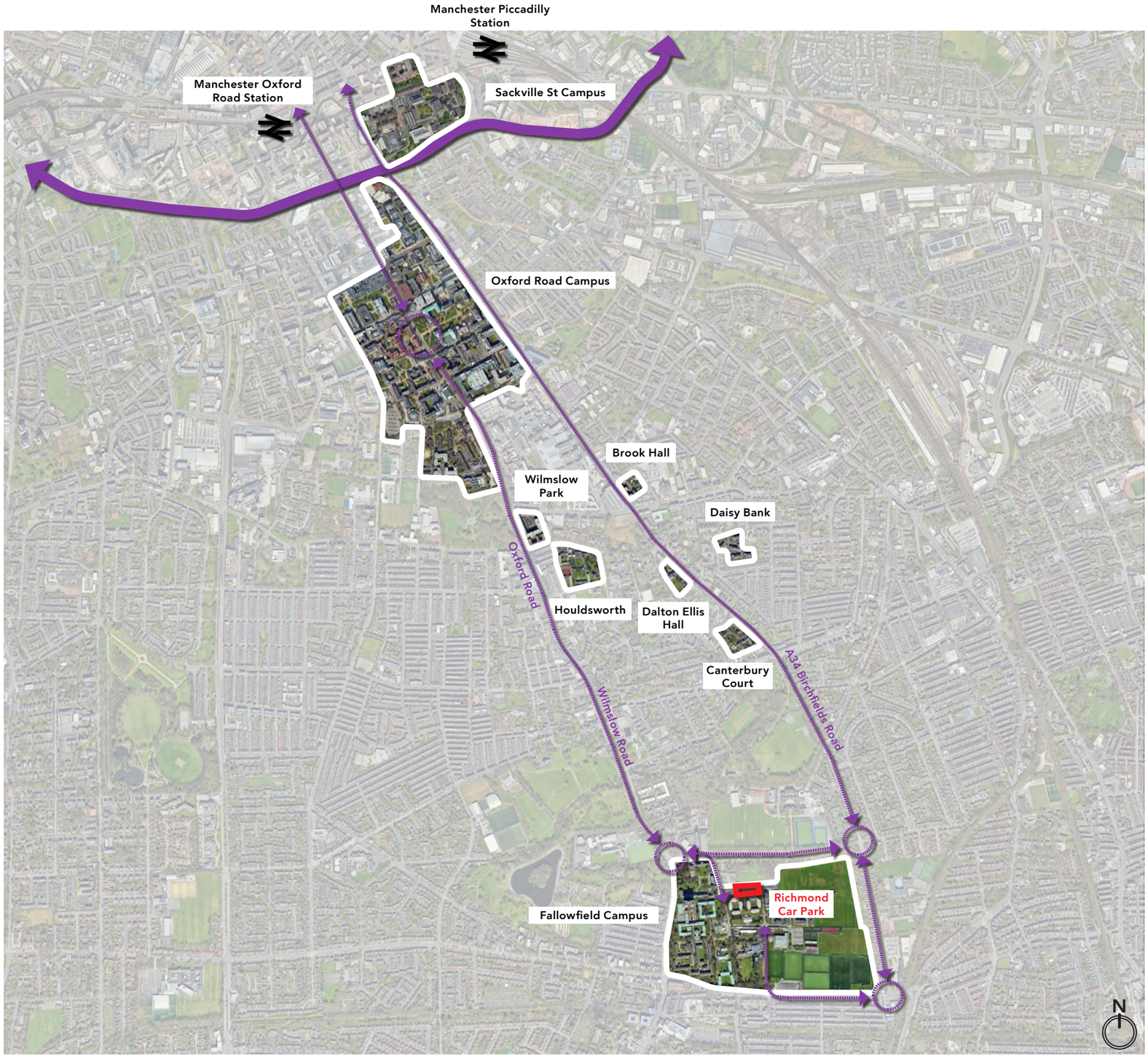
4 Understanding the Area

Location

Fallowfield Campus is the main student residential grounds for the University of Manchester.

Based two miles south of the main university site, to which it is connected by Wilmslow Road to its western boundary and Moseley Road the (A34) to it's eastern boundary.

It is approximately a 36-minute walk via Oxford Road and the 'Curry Mile', approximately an 8 minute cycle via Oxford Road and the Fallowfield Loop which offer protected cycle routes. The site is situated within Fallowfield Campus.



Context Appraisal

The project boundary is Richmond car park. Access into the proposed site is on Whitworth Lane via Old Hall Lane and Chancellors Way via Moseley Road.

There are vehicular security barriers across the campus which control access around the grounds.

Key

- Development Site
- University Ownership Boundary
- Parking
- Primary Vehicular Access
- Restricted Access (specific vehicles permitted only)
- Primary Cycle and Pedestrian Route (Whitworth Lane)
- Secondary Cycle and Pedestrian Routes
- Security Barriers

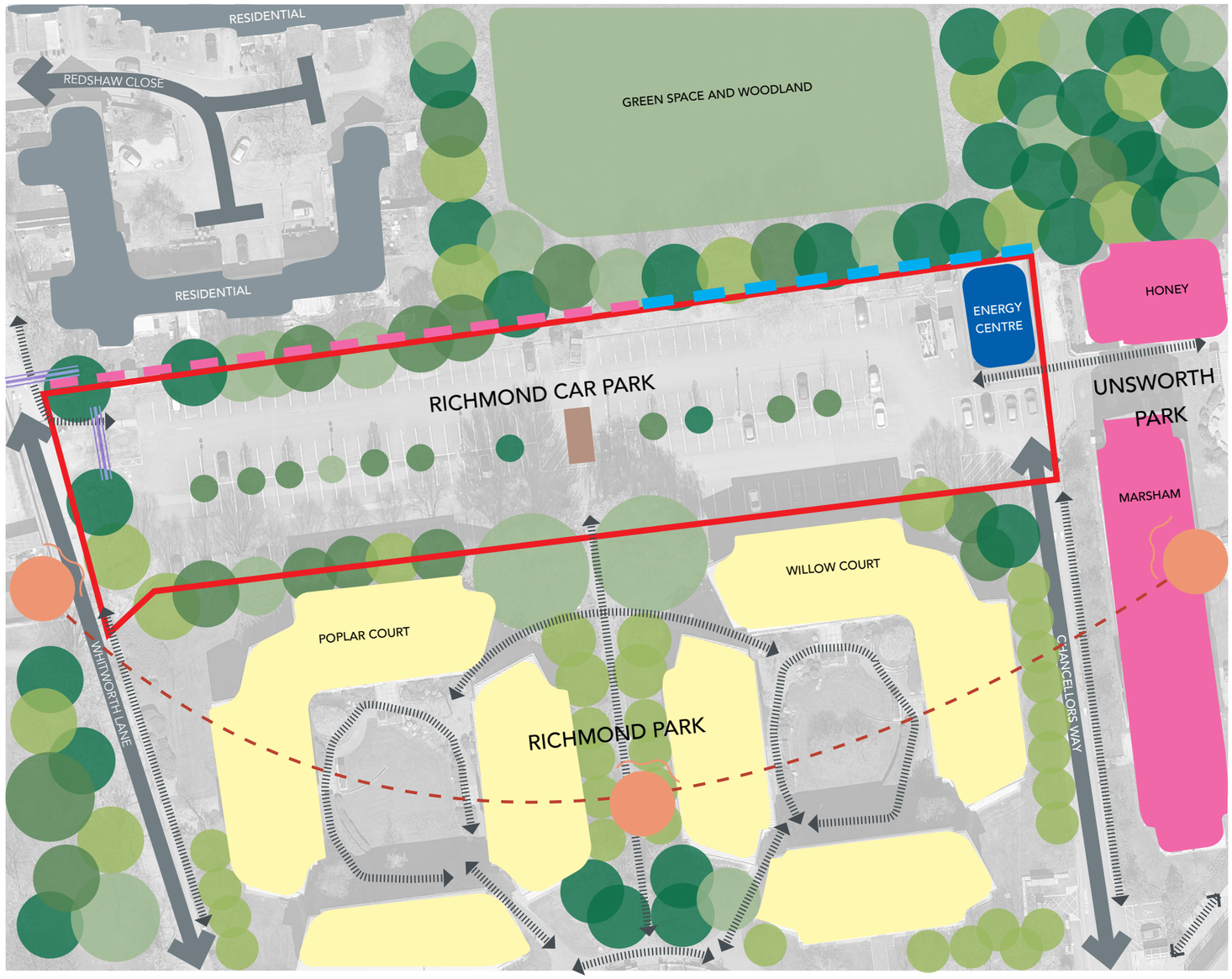
Fallowfield Districts

- Ashburne Hall
- Oak House
- Woolton Hall
- Richmond Park
- Unsworth Park
- Armitage Site
- Uttley House
- University Security
- The Firs Botanical Grounds
- Owens Park
- Almero Student, Ladybarn House



Site Context

The campus can be divided into key districts highlighted on the adjacent diagram. In addition to the student community there are areas of residential, small commercial buildings, educational (Manchester High School for Girls), landscaped areas with dense vegetation which surround the perimeter of the project boundary all of which will need to be considered. The south facing aspect and northern tree line provides opportunities for the proposal.



Key

- Development Site
- Primary Vehicular Access
- Primary Cycle and Pedestrian Routes
- Vegetation/Green Space
- Security Barriers
- Existing brick boundary wall (1.7m)
- Existing fenced wall (1.9m)
- Sun Path
- Bike Shelter

Site Photography

The site is referred to as Richmond car park and mainly serves the surrounding student residences circa 180 spaces and DDA bays for neighbouring halls. Across the car park there are trees and street lighting centrally positioned. A bike shelter exists on site.

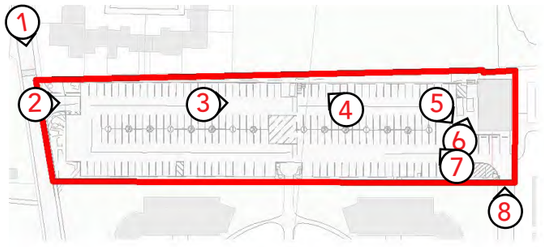
The Energy Centre occupies the site, sitting adjacent to Chancellors Way and next to Unsworth Park.

The northern edge of the site is populated with trees and vegetation of varying species and a boundary wall. Behind this edge of treatment sits Redshaw Close, a cul-de-sac, adjacent to this, a green space with a high density of trees. Richmond Park sits South of the site boundary and Unsworth Park sits East of the site.

Vehicular access to the site is primarily through Whitworth Lane on the western edge, where security barriers regulates traffic, controlling movement and traffic across the grounds. This measure significantly contributes to the enhancement of privacy and security for the student area.

Alternative access to the site is via Wilmslow Road, but it is restricted to permitted personnel, providing private entry to campus occupants/users. Throughout the campus, pedestrian and cycle paths are well-established, accompanied by numerous gardens and green spaces that create permeable routes. This main thoroughfare is Whitworth Lane which extends from the north to the south of the campus.

Key



1. Site approach from Whitworth Lane looking south.
2. Site access from Whitworth Lane looking east across the car park.
3. Looking north east at the existing site edge consisting of trees and vegetation with the Energy Centre in view.
4. Looking north at existing tree and vegetation site edge with Redshaw Close behind.
5. View from Energy centre looking at Richmond Park and Unsworth Park residences south east.
6. View of Energy centre with tree boundary edge and recreational landscape behind enclosure.
7. Looking north west across car park. Trees both within site and adjacent site.
8. Looking north towards site, Energy centre in view from Chancellors Way.






2


3
VEOLIA


4


6


7


8

5 Design Proposals

Design Principles

The proposal has various characteristics, requirements and features which have been designed to suit the needs of each of the teams. The following statements and images below aim to create a vision of priorities and opportunities for the scheme which support the design for the new facility.

01. Adaptable spaces to suit modern workplace practices. Welfare and support accommodation to meet the needs of a modern University.

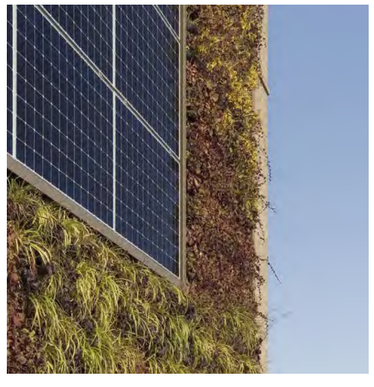


02. Connected and central for all staff, deliveries and visitors. Excellent linkages and communication to the wider campuses to enhance the University facilities functionality.



03. A 'graded' specification to provide a strategy for separately zoned 'environmental control' for the differing functions.

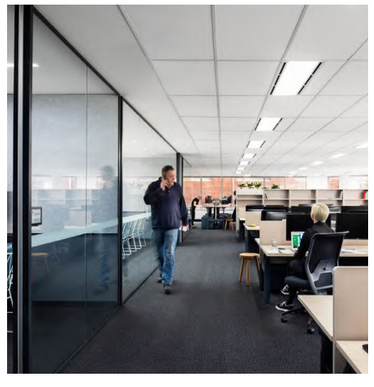




04. Sustainable and energy efficient – a future proofed facility for the long-term functionality of catering, maintenance and environmental services.



05. A building that positively engages with its public realm to ensure the building promotes safe and secure pedestrian and vehicular access.



0.6 Logistically Sophisticated - capacity for secure and separate handling of Catering, Maintenance and Environmental Services functions.

6 Appearance



Contextual Palette

The local material palette predominantly features brickwork, with neighbouring buildings surrounding the site primarily used for residential purposes characterized by lighter and warmer tones. Contrastingly, the on-site Energy Centre, designed for industrial and infrastructure purposes, has significantly influenced the aesthetic direction of the proposal. This building stands out with its darker materials, integrating a dark grey/blue textured brick and dark grey aluminium louvres.

The approved 2015 scheme opted for the use of the same textured and coloured brickwork as the Energy Centre, dark grey stainless-steel panels to openings and an upper PPC rain screen cladding system. This approved proposal featured a dark material and colour palette architecturally coordinated with the Energy Centre.

Given that the proposed building will serve a similar industrial and infrastructure function as the Energy Centre and the previous scheme did this also, the proposals aim to replicate these choices of materials and colours to harmonize with the Energy Centre's palette, ensuring a cohesive visual identity across the site.

Key

1. Ashburne Hall
2. Richmond Park
3. Unsworth Park
4. Residents at Redshaw Close
5. The Energy Centre

RESIDENTIAL USE



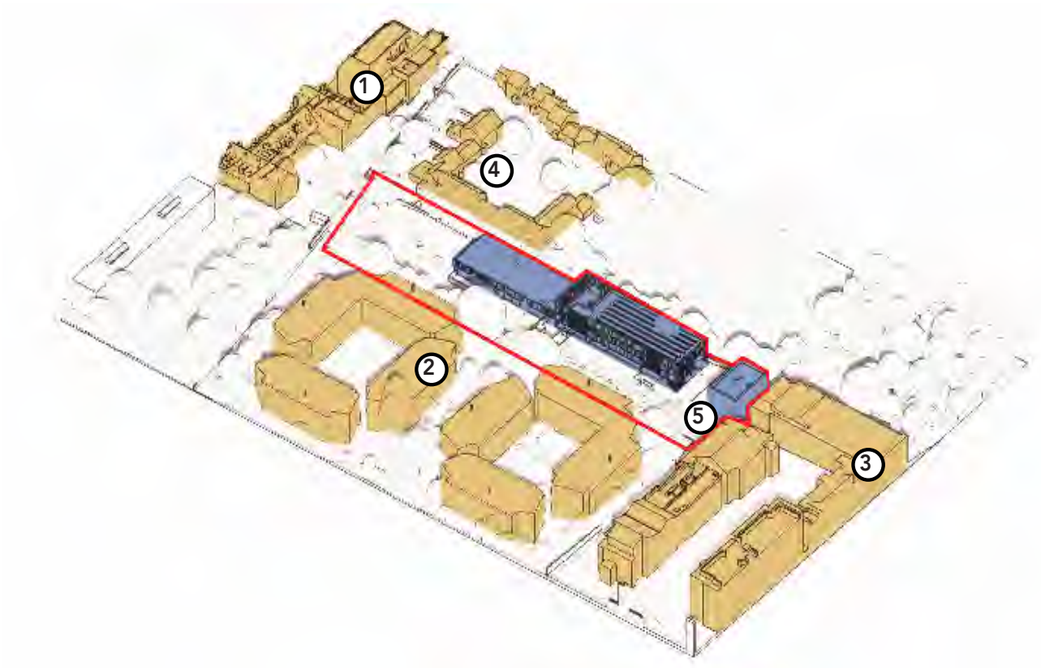






INDUSTRIAL/INFRASTRUCTURE USE





PREVIOUS 2015 CONSENTED SCHEME



Creating Identity

By drawing on the site's contextual influences, a carefully curated colour palette can be developed to guide the design proposal.

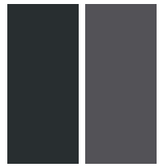
Drawing primary inspiration from the Energy Centre's aesthetic, the building design features a dark material as its core colour. To contrast this a selection of accent colours were explored, drawing from the warm tones of the surrounding residences.

The accent colour can be strategically integrated through a variety of design approaches. Façade graphics and university branding can be used at key entry points to enhance way-finding. Additionally, the accent colour can be applied to only certain architectural elements such as windows, doors, thresholds, and the undersides of canopies and stairs, creating focal points of interest across the elevation. To further enhance this effect, strategic lighting or accent coloured lighting can be applied, reinforcing the visual impact of the design.

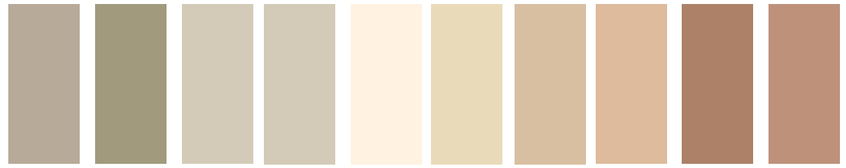
1. Accent colour on stair
2. Accent colour and way-finding facade graphics around key thresholds
3. Accent colour on window reveal projections

Contextual Palette

Industrial/Infrastructure



Residential

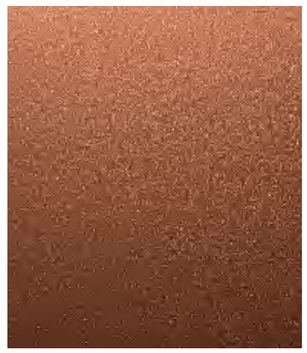


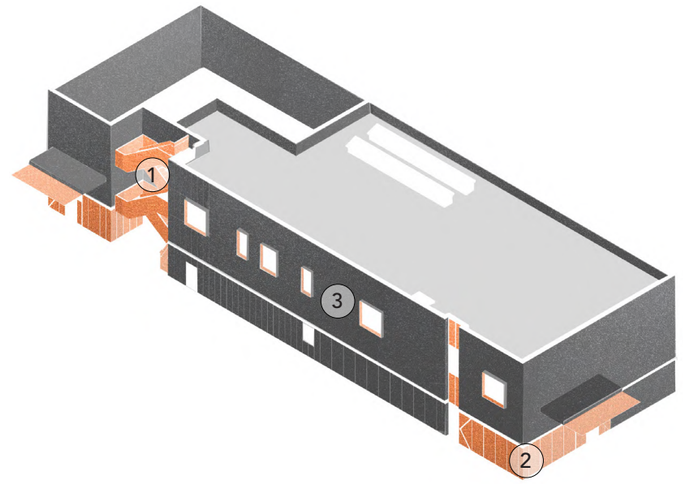
Material interpretation of contextual palette

Primary Colour



Accent Colour Options





Design Strategies

Facade graphics



Coloured architectural elements



Highlighting thresholds



Lighting

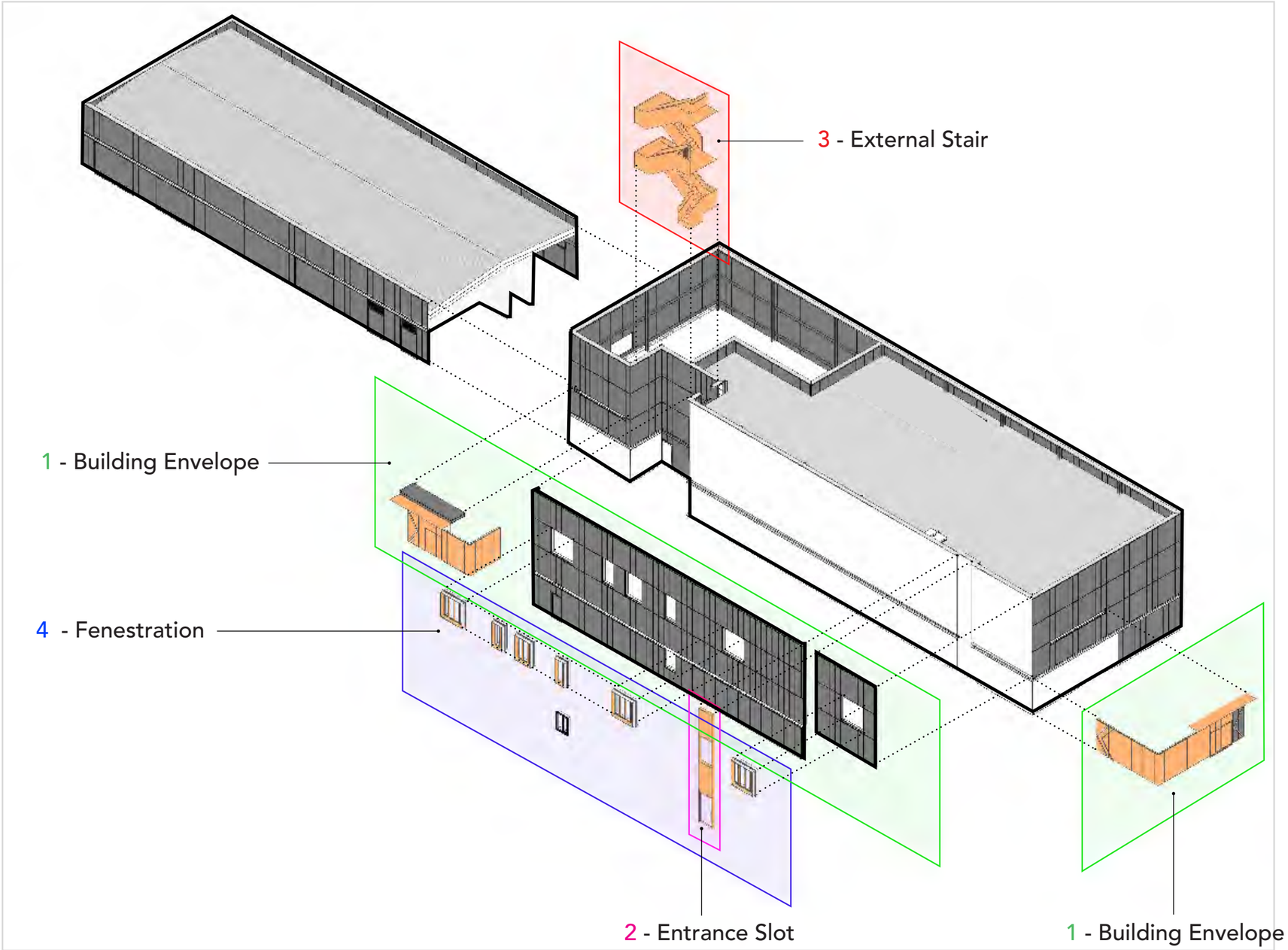


Primary Facade Elements

The scheme is split into the main building accommodation and stores. Despite these two distinct functions, the architectural design aims to create a unified proposal.

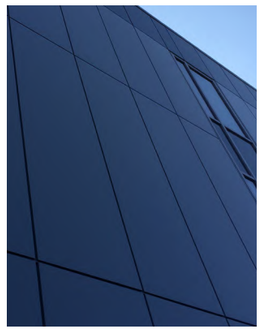
There are four distinct components to the design which work together to contribute to the overall aesthetic.

The structural and planning grid that informed the spatial arrangement in the floor plan has also guided the composition of the elevational arrangement.



1 - Building Envelope

The building has an elongated and rectangular footprint. To counterbalance the scheme's horizontal mass and introduce a sense of height, the envelope incorporates vertical elements. The varying panel sizes are meticulously aligned with the grid layout of the proposal. The Energy centre adjacent sets a prominent horizontal datum, defined by a metal channel establishes uniform alignment of horizontal joints across the façade. This mix of vertical and horizontal joints work to create a composition. Additionally, the canopies frame the Goods In and Goods Out areas outlining key thresholds for the CPU workstreams.







2 - Entrance Slot

The vertically designed entrance slot harmonizes with the height proportions of the external stair, enhancing the building's vertical rhythm. The consistent use of accent colour further highlights this entry, marking it as a focal point and guiding the visitor's arrival experience.



3 - External Stair

The external stair serves as a secondary means of entry and orientation. Extending from the ground to the roof, its vibrant colour contrasts strikingly with the dark facade, transforming it into a sculptural element that is integrated into the building's elevation.



4 - Fenestration

The box-frame windows have been intentionally designed to provide solar protection while adding relief and articulation to the prolonged south façade. These framed apertures feature the accent colour which enhances the architectural interest of the façade. In contrast, the windows on the north side and along the ground floor are flush with the building's external face and exhibit a darker aesthetic, blending seamlessly into the building's exterior.





Facade Arrangement

The following facade studies have been extracted from the elevations and are used to explore and describe the detail of the scheme.

The material legend is the be read in conjunction with the drawings. Please refer to the following:

LIMES-BUT-B1-ZZ-DR-A-05001-Proposed Elevations - North and South (Main Building)

LIMES-BUT-B1-ZZ-DR-A-05002-Proposed Elevations - East and West (Main Building)

LIMES-BUT-B2-ZZ-DR-A-05003-Proposed Elevations - North and South (Stores)

Material Legend

1. Modular composite cladding system made from pre-finished steel sheet. Colour/Finish: Matt (Seren) Black. Recessed joints with hidden fixings. Preformed 3D corner flashings and accessories all with recessed joints.

2. Aluminium profiled metal channel. 150mm recessed from face of cladding. Colour/Finish PPC Black to match surrounding cladding.

3. Modular composite cladding system made from pre-finished steel sheet. Colour/Finish: Metallic (Seren) Copper. Recessed joints with hidden fixings. Preformed 3D corner flashings and accessories all with recessed joints.

4. Aluminium framed entrance door with glazed panel integrated within curtain walling system. Colour/Finish Metallic PPC to match surrounding cladding.

5. Printed graphics and University way-finding applied directly to cladding system. From Vinyl applied Manifestation to Architect's artwork and details.

6. Aluminium PPC Double/Triple Glazed Window system with metal window box surrounds from PPC Aluminium integrated into the window and cladding system to architect's details. Colour/Finish Metallic PPC and Matt Black to match surrounding cladding.

7. Brick plinth from black engineering facing brick stretcher bond.

8. Metal canopy - Steel Plate soffit with Colour/Finish: Metallic PPC and Matt Black. Steel structure set above the soffit plate and hidden from underside.

9. External steel faced and glazed medium security leaf and half hinged door set and frame system. Integrated Louvre Panels. Colour/Finish Metallic PPC to match surrounding cladding.

10. Visible grid Aluminium Curtain Walling System. Colour/Finish Metallic PPC to match surrounding cladding. Integrated Aluminium Spandrel Panels to same colour/finish.

11. Prefabricated metal stair - Galvanised and PPC Finishes Steelwork. Colour/Finish Metallic PPC to match surrounding cladding.

12. Aluminium framed entrance door with glazed panel integrated within curtain walling system. Colour/Finish PPC Matt Black to match surrounding cladding.

13. External steel faced medium security, single leaf hinged door set and frame system. Colour/Finish PPC Matt Black to match surrounding cladding.

14. Acoustic wall barrier - Acoustic barrier based on an aluminium sectional frame with interlocking tongue and groove panels. Installed with additional steel mesh panel to allow planting to grow across barrier. All to Acoustic Consultant's advice.

15. PPC Double/Triple Glazed Window system from PPC Aluminium integrated into the window and cladding system to architect's details. Colour/Finish PPC Matt Black to match surrounding cladding.

16. Stainless Steel Bollards.

17. Galvanised Steel Bike hoops - Colour / Finish PPC Black.

18. Heavy Duty double wire mesh security rated fence system. Colour / Finish PPC Black.

19. Metal framed leaf and half door set with louvre panel to fixed leaf and louvre panel integrated above door set.

20. Roller Shutter Doors from aluminium profiles. Colour / Finish PPC Black.

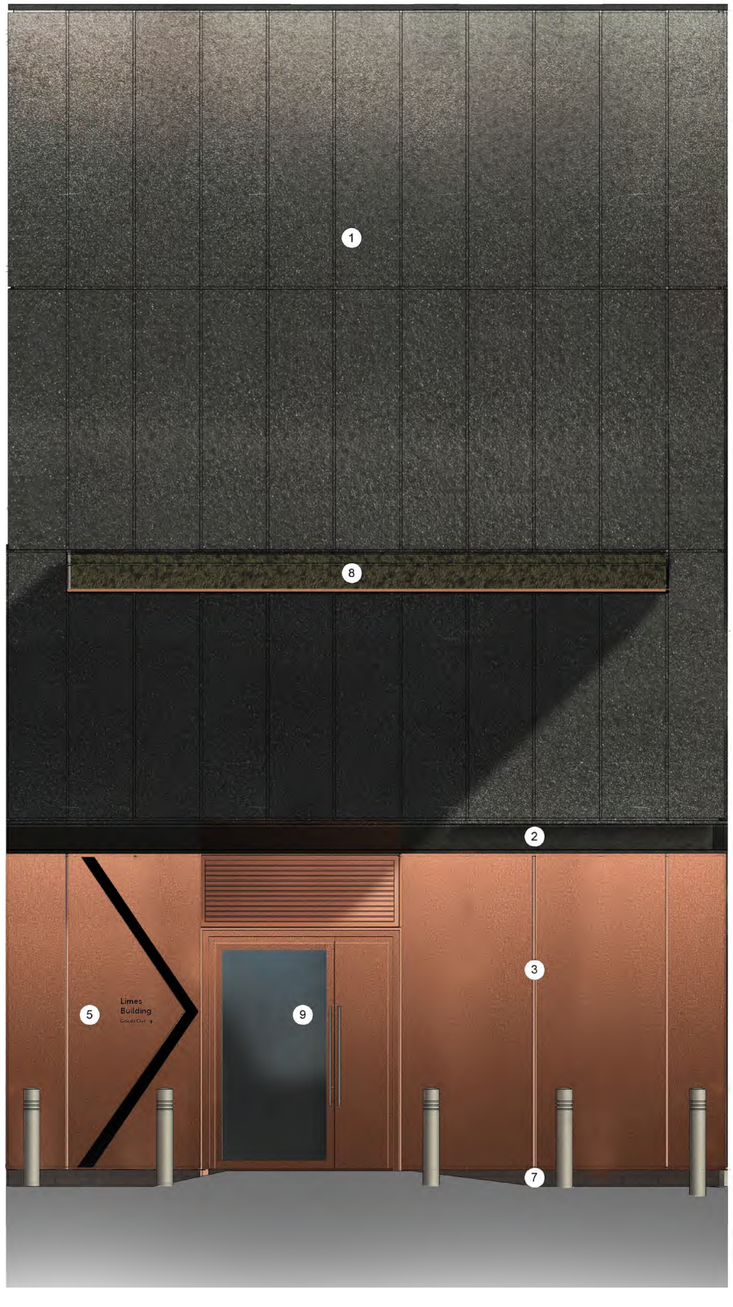
21. Aluminium louvre panel integrated into cladding system: Colour/Finish PPC Black to match surrounding cladding.

22. Steel door protection barriers - Colour/Finish PPC Black.

23. Square aluminium rainwater pipe and hopper. Finish Black PPC to match adjacent cladding.



Main Building Entrance Bay Study



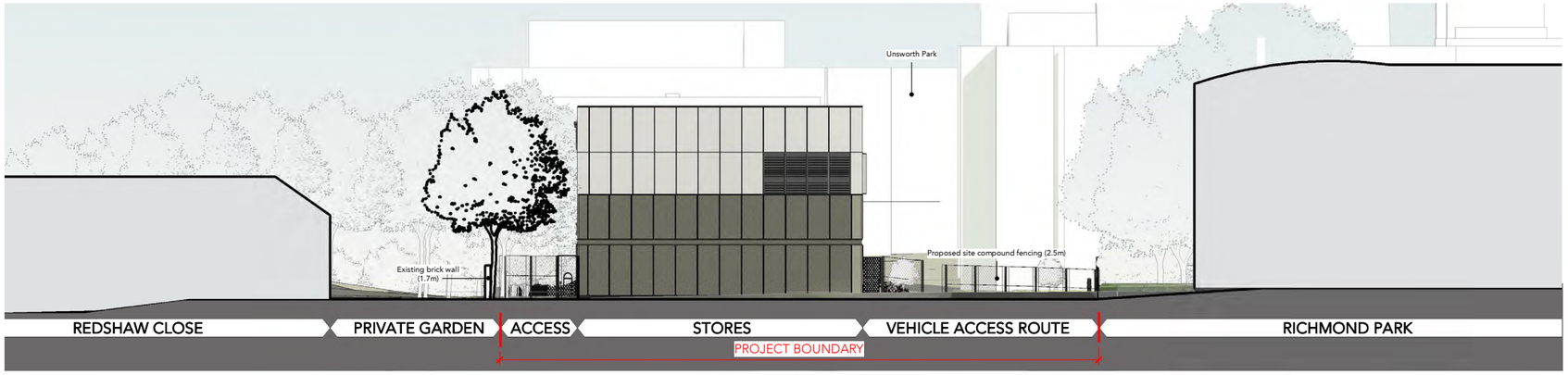
Main Building Goods Out Bay Study



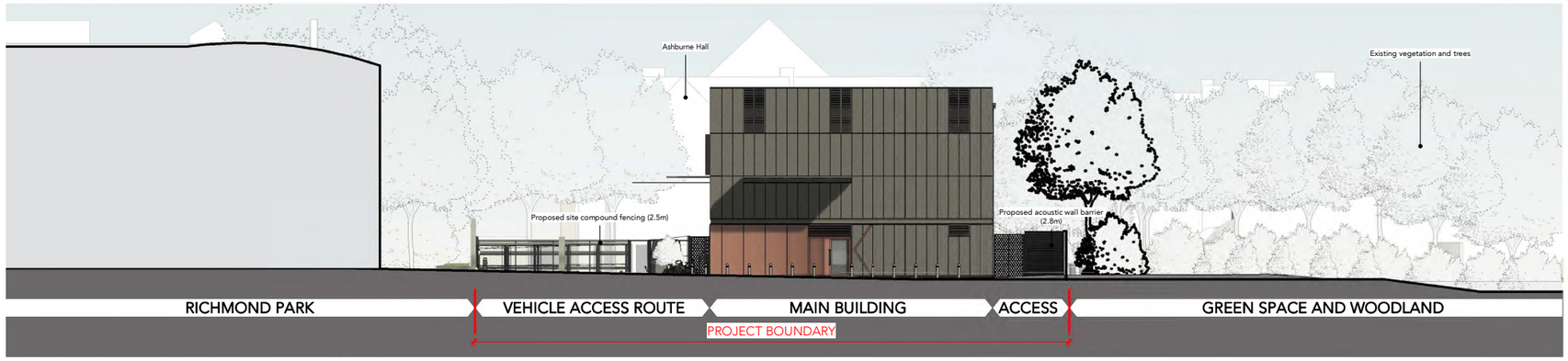
Stores Bay Study

Architectural Elevations

The scheme sits within the wider Fallowfield campus with consideration to mass and scale of the neighbouring buildings. The following elevations have been prepared to explain the overall composition of the building. The architectural elements as explored work together to deliver a a new building that takes precedent from it's context through a contemporary architectural approach which is functional and considered.

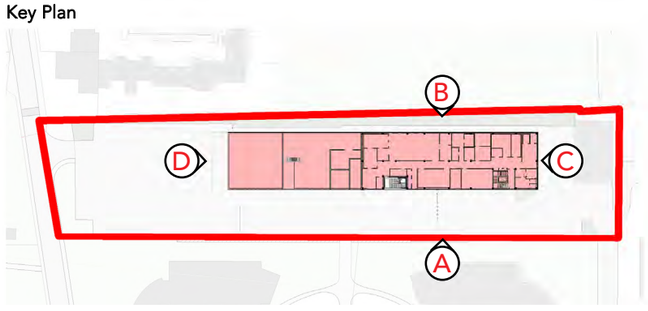


West Elevation (D)



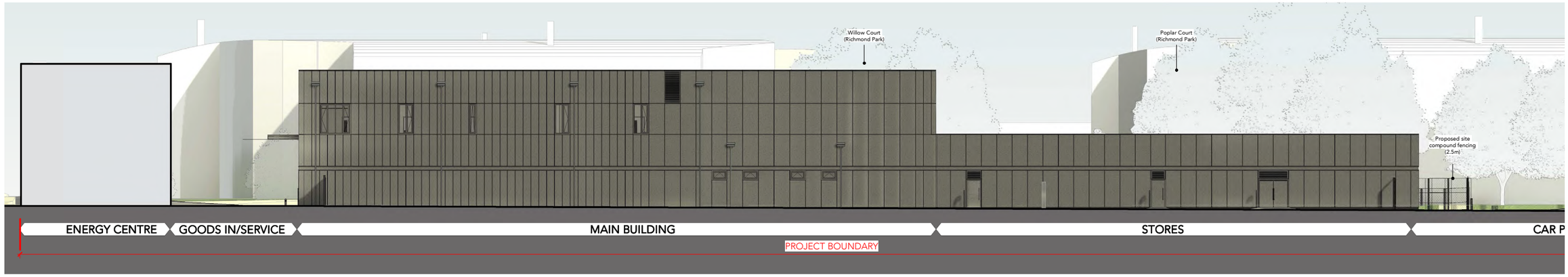
East Elevation (C)

Key Plan





South Elevation (A)



North Elevation (B)

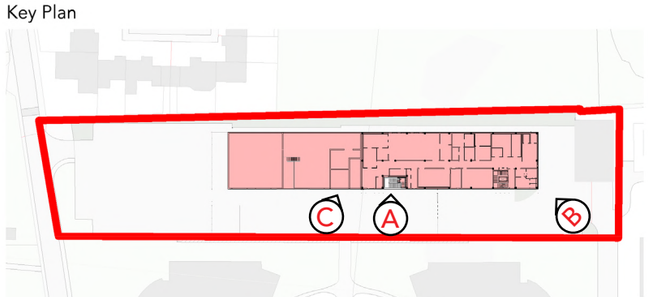
Visuals

Chancellor's Way Approach

Indicated as View B on the key plan; Chancellor's Way serves as the primary approach to the building. The accent colour stands out dramatically against the dark backdrop, highlighting the entrance slot and external stair as they become visible from the approach.



Key Plan





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The University of Manchester

External Stair Approach

Indicated as View A and C on the key plan illustrates the setting within the site compound, with the goods-out area sheltered by a canopy which frames the threshold. The external stair, visible in view extends from ground to roof level, serving both functional and aesthetic purposes as a striking piece of architectural composition.

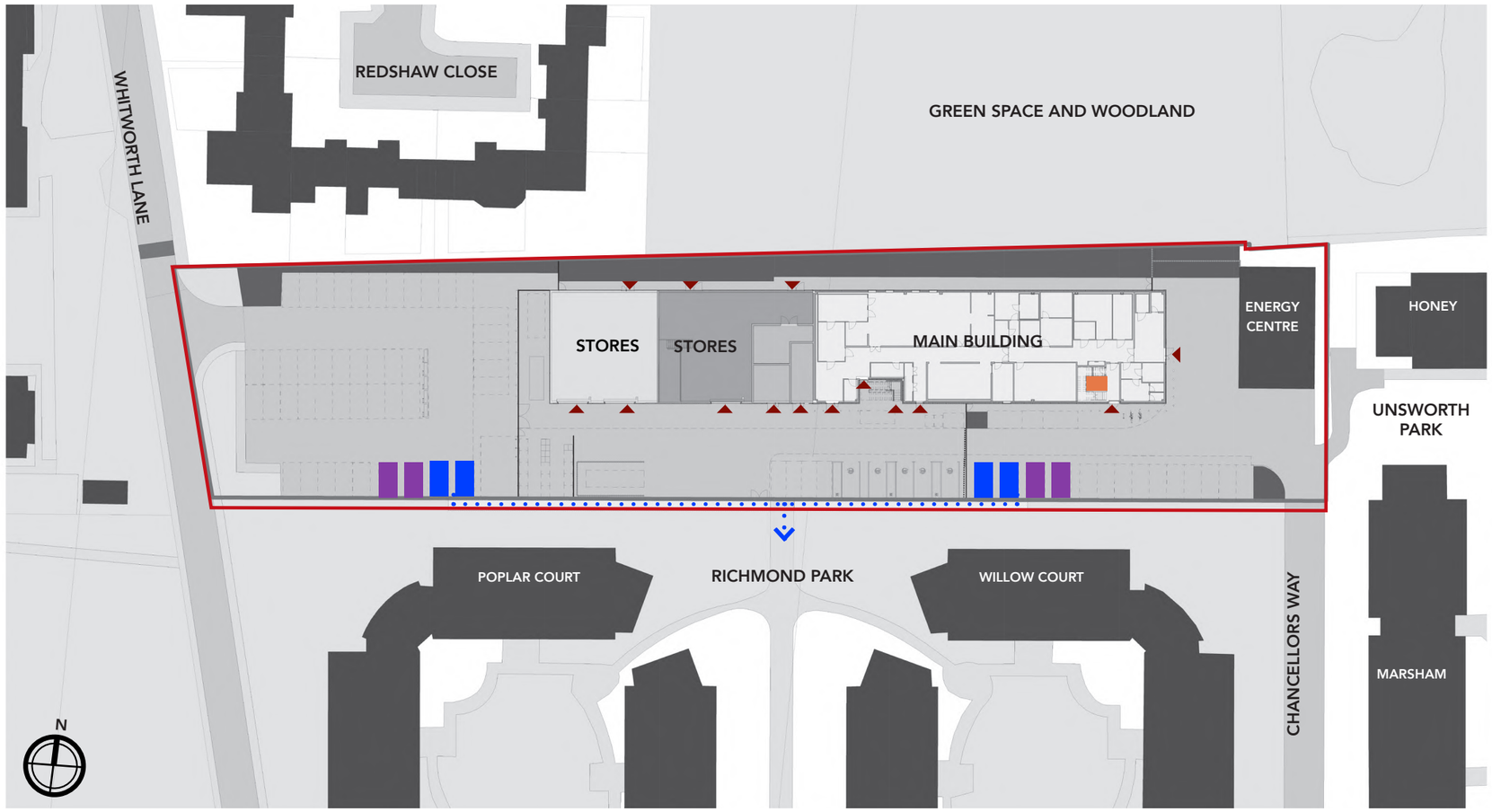
7 Movement and Access

Designing for Inclusion and Accessibility

The following strategy explains the approach taken in providing step free access to the building entrances.

The building will be designed to be Part M compliant. Within the building a number of key features have been included to ensure access for all:

- Lift access
- Part M compliant Accessible WC at ground level as part of the WC/Changing/Shower facilities for the CPU team
- Disabled refuge spaces included within stair cores
- Dedicated Disabled parking bays for neighbouring student halls have been allocated within the car park (west) and in front of the main building entrance (east).



Pedestrian Movement and Access

The adjacent diagram arranges pedestrian access and routes to establish a rational movement strategy for the scheme.

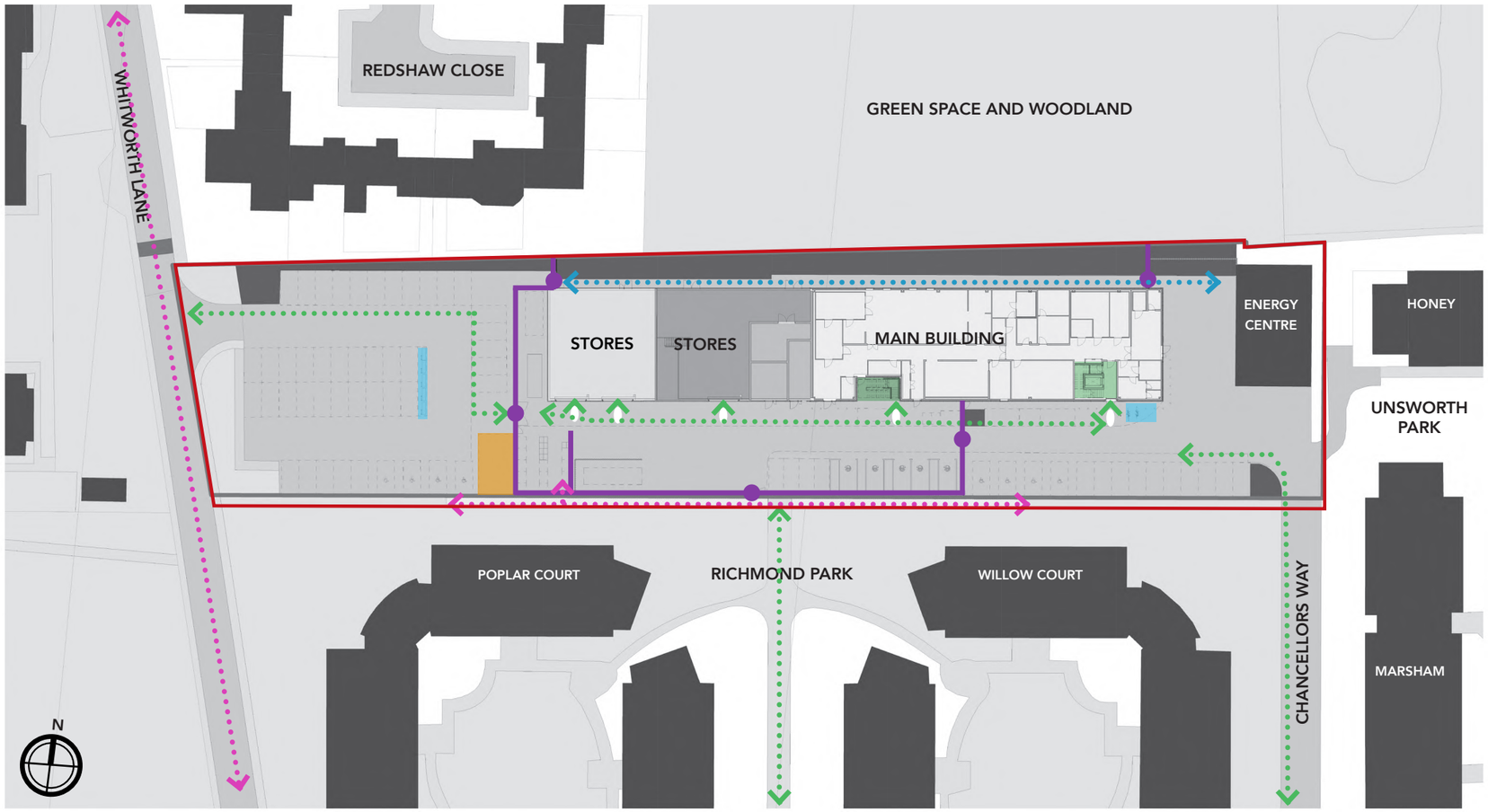
Entrances to the stores and the main building are located along the south elevation facing the primary vehicular route.

The proposal incorporates fenced areas and gated access to enhance security, privacy, and safety for building users and the public.

A footpath has been planned from east to west along the southern edge of the development boundary, enabling public access across the wider campus without crossing through the site as well as providing a route for students with allocated DDA bays west (within the car park) and east adjacent to the main entrance of the building. Gated access connects to the existing central route through Richmond Park, providing a south-to-north axis to the site.

Along the northern edge of the development boundary, a private footpath has been provided for service and maintenance, which will not be accessible to the public.

A bike store zone has been provided for staff and student use. There are bike hoops provided within the car park and in front of the main entrance.

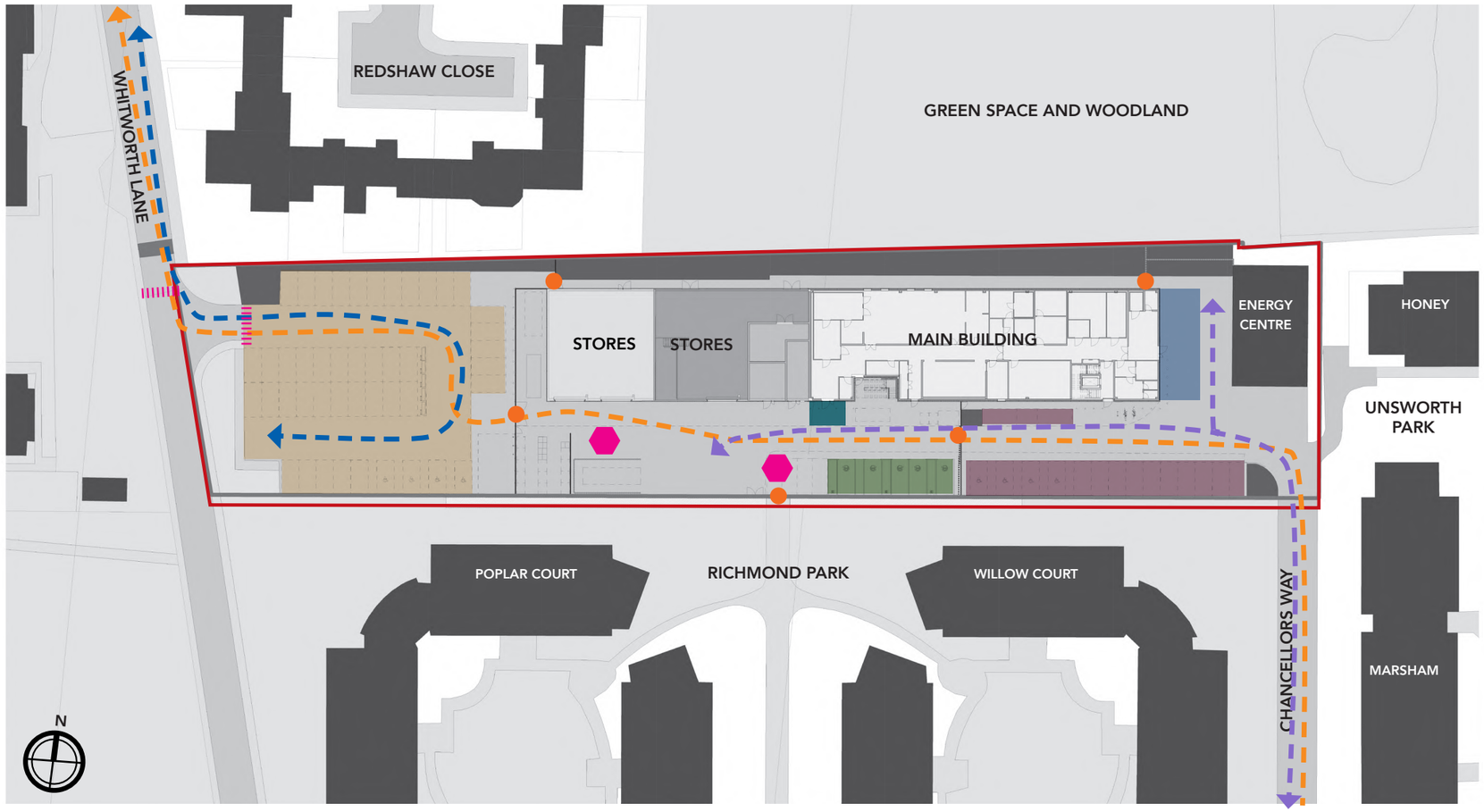


Vehicular Access and Servicing

The diagram adjacent organises vehicular and service access routes to establish a rational movement strategy for the scheme.

Parking is situated to the left of the site footprint, providing 45 spaces (including 2 accessible bays) accessed via Whitworth Lane, available for staff, students, and visitors. The main entrance and exit from the site is via Chancellor's Way (indicated in purple). Traffic flow has been designed to minimise disruption to properties along Whitworth Lane and Redshaw Close.The orange line indicates a route through the site from Chancellor's Way to Whitworth Lane, facilitating the University's induction activities for a brief period.

Access to the site is controlled by a series of gates. The diverse activities and operations of the teams will continuously reshape the servicing strategy and site landscape. The University acknowledges that the service yard and vehicular routes are shared among these teams. For instance, the CPU team will manage a workflow for goods in and out to meet the catering demands across the campus, while the FMC team will store and transport equipment such as large lawnmowers necessary for maintaining the university grounds. Comprehensive design studies and collaborative workshops with the University and design team have ensured ample space for all vehicles and equipment, accommodating the needs of each team on the development site. Furthermore, the design team has implemented measures to regulate traffic and facilitate manageable movement both on and around the site. The University will actively monitor building operations safely and efficiently to ensure that vehicles and equipment are cleared for access along the service routes, supporting the activities and events held on campus.

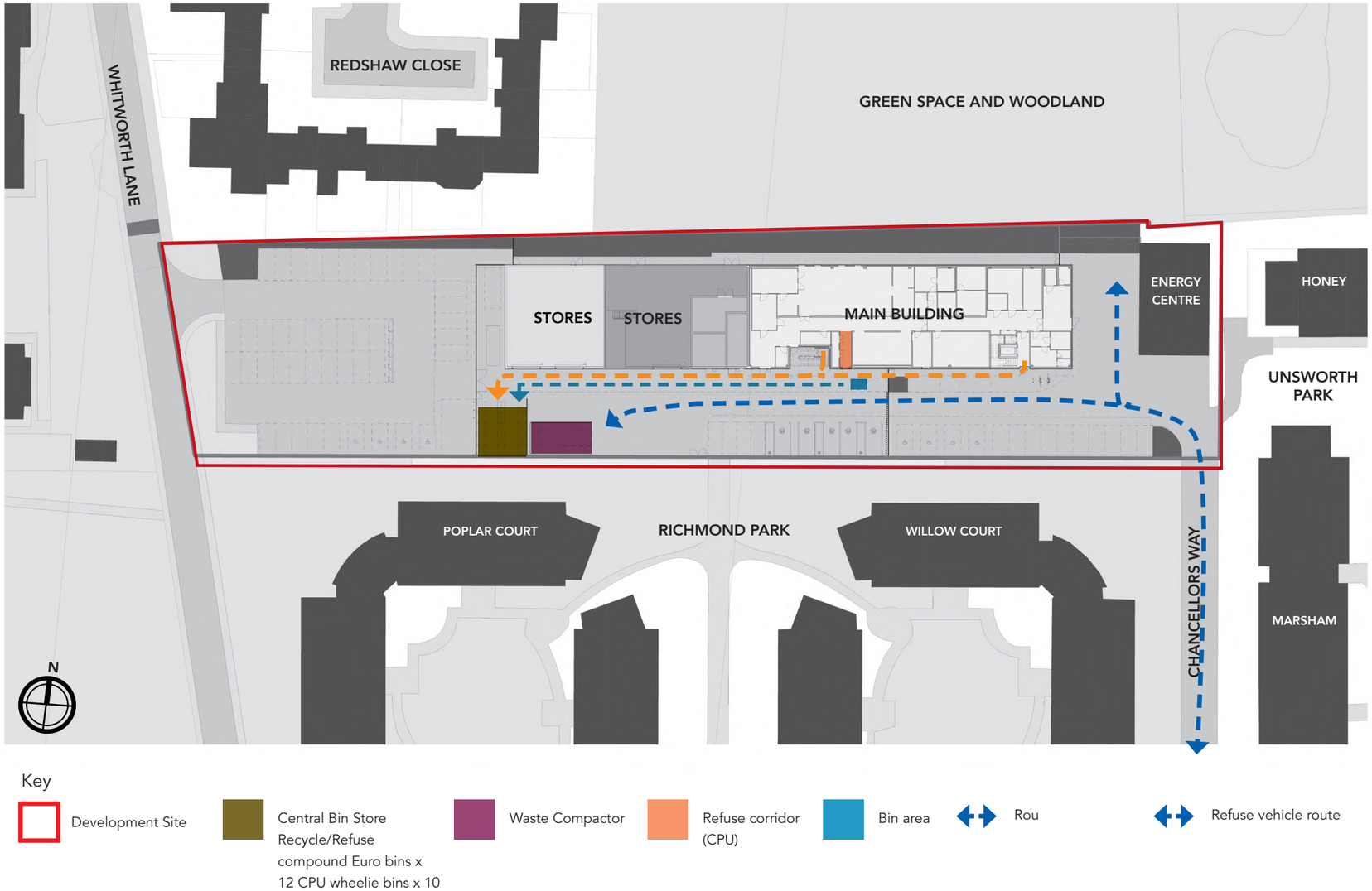


Refuse Access

The arrangement for refuse access is shown in the adjacent diagram.

Arrangements regarding waste collection will be made by the University. A central bin store fenced within the site compound is proposed to hold and segregate the different waste streams for the entire site. A bin area directly outside of the the refuse corridor for the CPU help store immediate waste to be located to the central store. The diagram across demonstrates how this waste store is accessed from the different parts of the building.

Refuse vehicles will enter the site and collect the waste from this bin store and waste compactor. A turning head has been built into the scheme for this purpose. A separate Waste/Servicing management strategy has been provided to support the application.



Cleaning and Maintenance

The building will be cleaned, maintained, and accessed adopting the following strategies explained in this section of the report which covers the different areas of the building, i.e. low and high, internal, and external. Maintenance and cleaning are to be undertaken by trained staff only to approved methods.

The strategies have been subject to liaison with the CDM Principal Designer nd consultation with UoM and are in line with the University's policies.







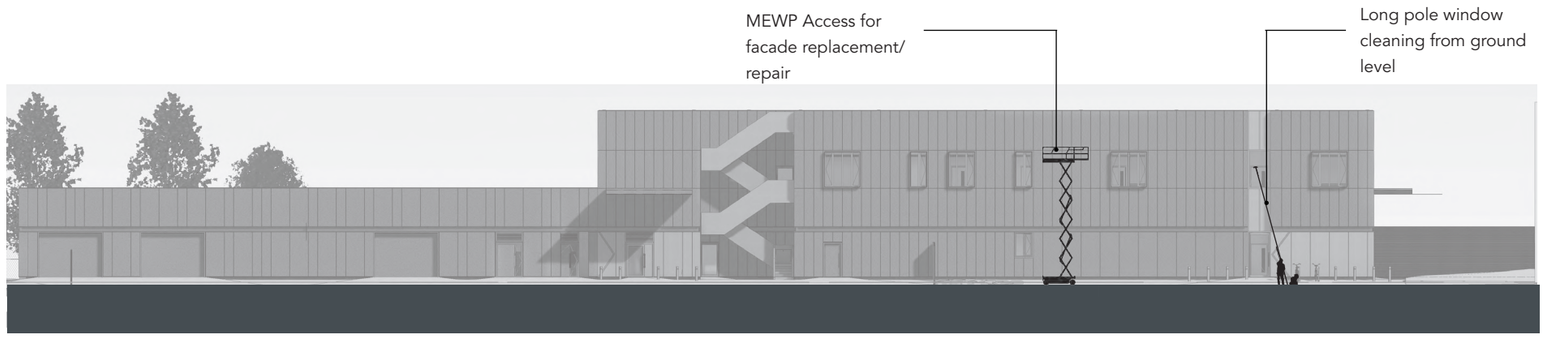


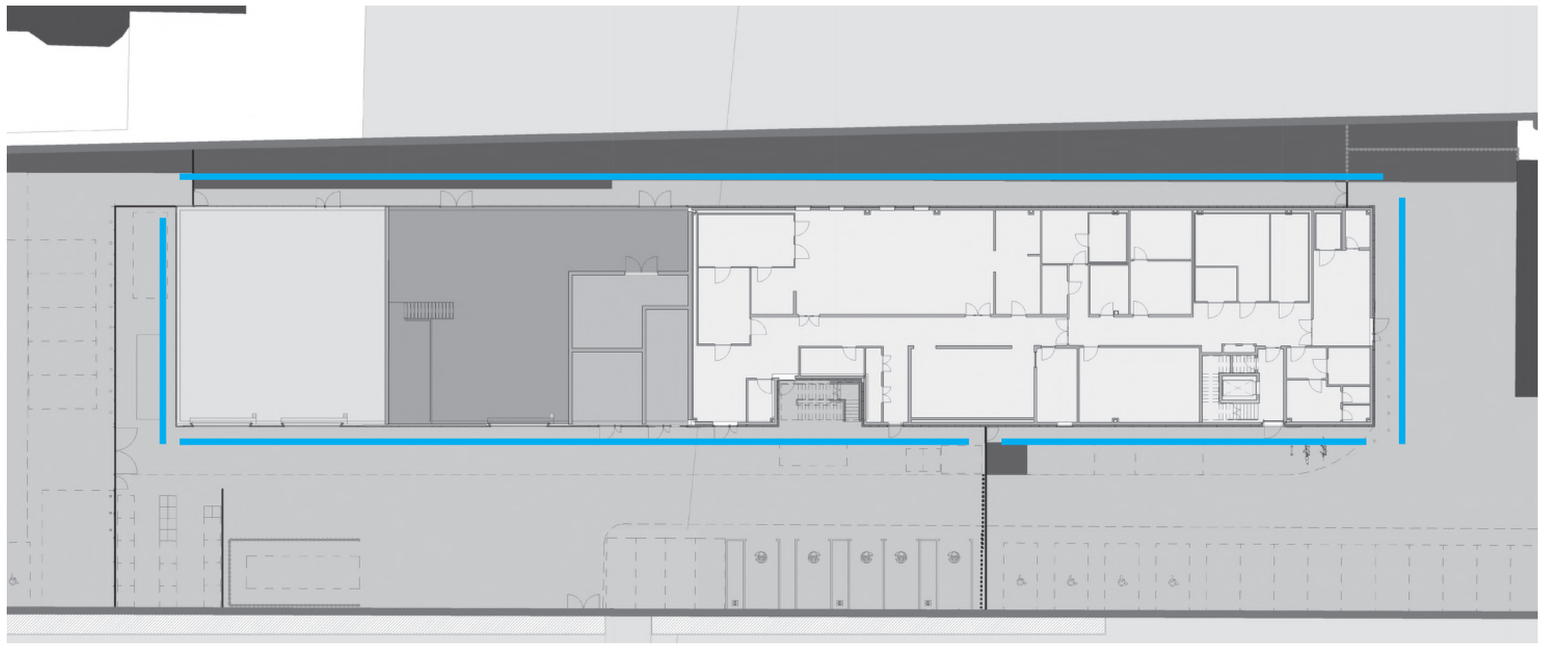
Facade Access

The design ensures that all sections of the façade can be effectively cleaned from ground level. The building is positioned with ample space around it, avoiding any façades on the boundaries.

Windows that open inward facilitate interior cleaning. For façade maintenance, including window replacement and cladding repairs, all areas can be accessed from the ground floor. To maintain accessibility, equipment and vehicles around the building perimeter will need to be relocated.

The design prioritises extensive use of internally beaded glass, allowing for window replacement to be performed from within the building. Facade cleaning can be efficiently carried out using long poles from the ground level, taking advantage of the safe working space around the structure. For facade maintenance, MEWP access and or scaffold can be utilised, but it should be recognised as requiring working from height.





Access to Cleaning Windows via Long Pole Washer

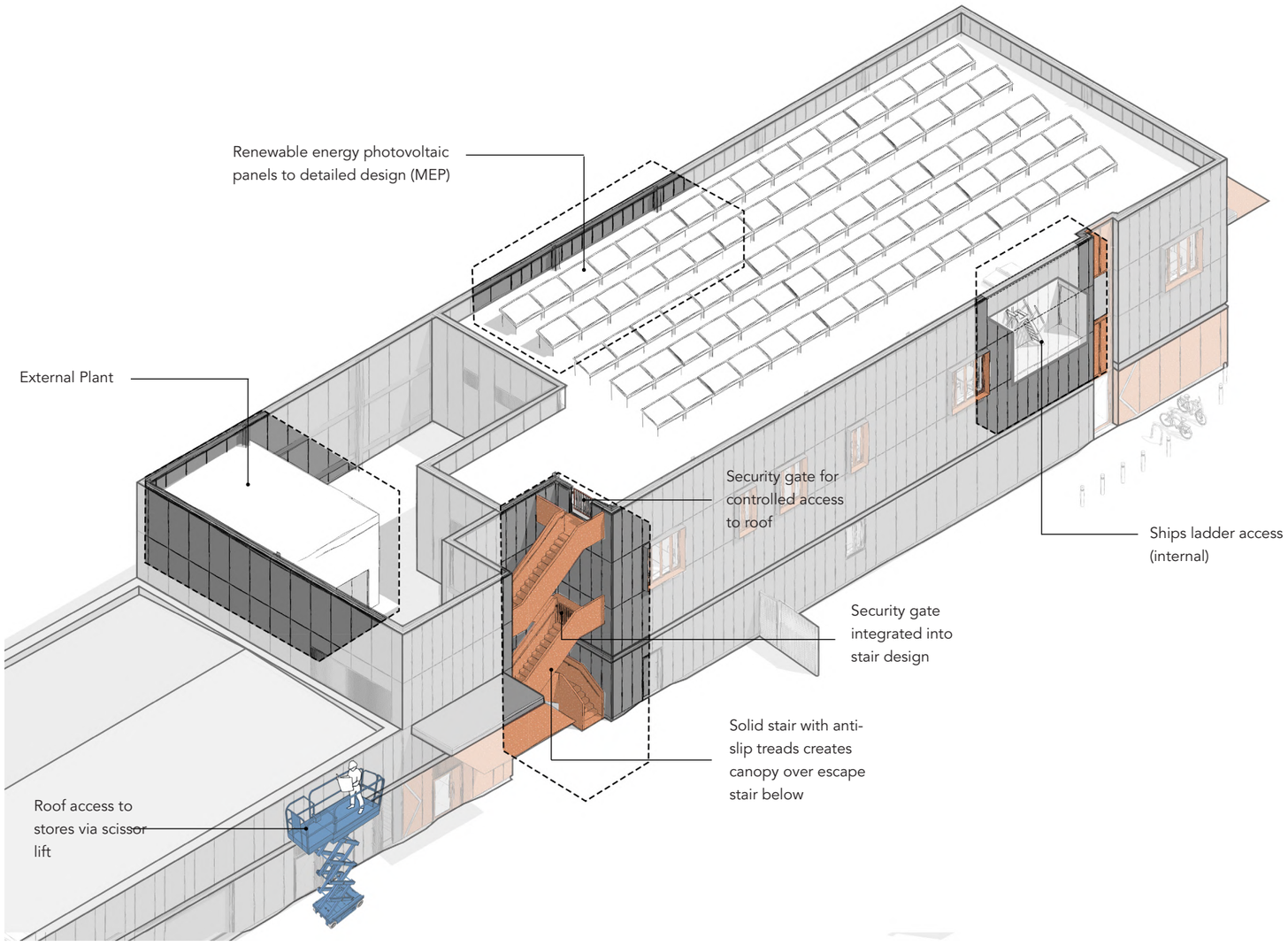
Roof Access

There are two means of roof access from the main building. Within Staircore 1 on first floor there is access provided via a ships ladder. The other access is via the external stair which has gates allowing permitted access for security and safety. The parapet of the main building is 1100mm and will not include a fall restraint/edge system.

As well as cleaning and maintenance there is provision for roof mounted PV panels. For changing / replacing glazing panels there are two options a MEWP can be used to transfer panels to and from the roof but recognised as requiring working from height. The external plant is surrounded by an enclosure and accessed from first floor. The enclosure provides safety around the area and it is intended to be maintained and inspected regularly.

The stores roof does not have any plant/PV and the parapet to the stores are below 1100mm. It is intended that the use of a scissor lift can be used for maintenance/ repairs. A leaf gutter catcher or gutter vacuum systems can be used for cleaning methods.

There will be inclusion of a fire alarm sounder/beacon to warn operatives on the roof in case of emergency. Accessing a roof area from a MEWP can be done but it creates greater risks of working at height, stepping onto the roof from the platform and the roof area would still require suitable protection (fall arrest etc). The lift within Staircore 1 can be used to transfer items of mechanical plant equipment when necessary.



8 Sustainability

Sustainability

The University of Manchester has made a strategic commitment towards environmental sustainability. To ensure principles of environmental sustainability are embedded across business operations, the University has produced an Environmental Sustainability Project Tracker specific for new builds and major refurbishments for use during design and construction.

The proposal takes into account the following guidelines by the University:

- EPM PM7 - Code of Practice for Design Teams;
- The Environmental Sustainability Strategy 2023-28
- The Carbon Action Plan
- Race to Zero

The guidance states that all capital projects over a certain value will require BREEAM Accreditation. During the design development of the proposal the design team have been advised a target BREEAM score of 'Very Good'. An Environmental Standards Statement and BREEAM Pre Assessment have been prepared by RLB as part of the application.

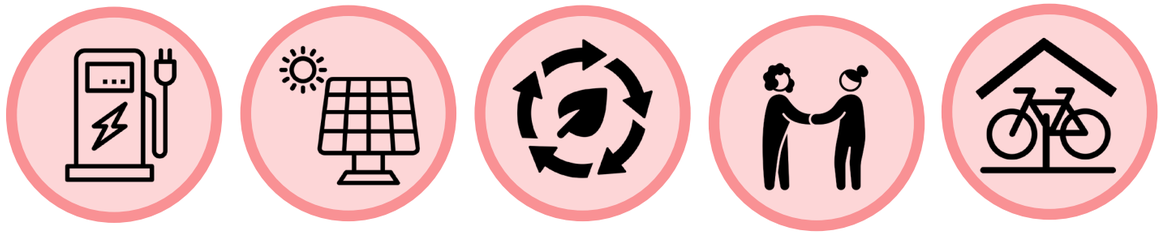




The strategy for the scheme has been fulfilled through the following:

- Implementation of high-quality fabric, all electric systems and on-site solar PV.
- Avoiding fossil fuel tie in and benefiting from continual de-carbonisation of the grid.
- Offering EV charging, parking and cycle store provisions to encourage an active transportation shift to reduce carbon footprint.
- Retain employment and improve the future of the wider University offer and service.

This section of the report expands on the key features of the proposal and outlines the mechanisms adopted to promote good design, energy efficiency and low carbon energy.



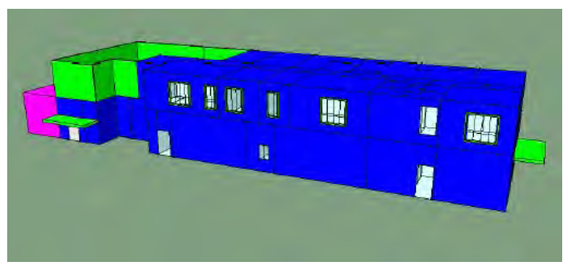
Building Regulations Part L Conservation of Fuel and Power

Modelling has been undertaken by Hydrock MEP to ensure compliance with Building Regulations Part L 2022 is achieved and overheating improved.

The stores and associated plant spaces will be considered as low energy as there will be no heating or cooling will be required.

Non-domestic areas are required to meet Approved Document Part L, Conservation of Fuel and Power, Volume 2: Buildings other than dwellings.

In terms of energy conservation it has been proposed that there will be control of the buildings lighting systems and variable speed inverter driven fans and pumps will be provided where appropriate.



3D view of model by Hydrock

Renewable Technology

To achieve the carbon emissions targets of the development, Photovoltaic panels are incorporated into the design. These sit on the main building plan south facing and angled to maximise for the installation of the PV arrays, The PVs will not impact on any noise when in operation nor the natural surrounding environment due to no emissions emitted from the system. Electric Vehicle Charging (EVC). An allowance has been made for fast charge EVC points. These will be fed from a dedicated distribution board.

The use of electric as a strategy will take advantage of the continual grid de-carbonisation and avoid fossil fuel tie-in on site.



Examples of EVC Charging points



Examples of roof-mounted PV arrays

Building Services

To ensure thermal comfort is met; the proposal has been designed with a centralised air source heat pump (ASHP) system providing heating and hot water.

Ventilation is provided to occupied spaces via local MVHR units, Central AHU serving CPU and extract to WCs. Windows to the south and north elevations have been designed to be openable to ensure natural ventilation can be achieved. To manage overheating to accommodation there will be allowance for blinds/ curtains.



Typical ASHP for hot water generation



Typical ASHP for space and air heating

Surface Water Management and Sustainable Drainage Systems

Hydrock Structures/Civil have reviewed the surface water and sustainable drainage strategy. The existing drainage system is generally in good condition and further surveys outline the drainage discharged into drains constructed in the adjacent development in the south west. The design of the student residential drainage has included allowance for the surface water from the development site through provision of attenuation within large diameter surface water drains. If the use of previously approved drainage design strategy and existing attenuation is sufficient then there will be no additional attenuation.

In regards to SuDs the development site will be classified as low pollution hazard level in accordance with the SuDS Manual. Hydrock have noted that where practical the proposal has the potential to use permeable paving to provide a natural approach to managing drainage and preventing pollution.



As built drawing of the adjacent halls of residence development, the triple large diameter pipes in the centre of the site provide Attenuation for the Limes site

Encouraging Biodiversity

Tyler Grange have produced findings of an Ecological Impact Assessment for the development site and Turley will provide landscaping details submitted to support the application.

Details in the report outline the site comprising of hard standing, introduced shrub bare ground, modified grassland including scattered trees and treelines. Results found that the site contains habitats that could support common and widespread nesting/roosting and foraging birds along with hedgehog.

The proposal aims to retain the existing treeline to the north of the site and any semi-mature boundary trees with local ecological importance which may be affected by the development will be replaced to mitigate the loss.

Provisions can be made for roosting of bats through the installation of bat boxes within existing trees on site or the development building. There would be potential to support the breeding of birds in the hedgerows, garden shrubbery and surrounding trees on site. It is therefore recommended that any vegetation and building clearance works will be done outside of the breeding bird season.

Provisions for hedgehogs can also be included within the design. Garden shrubs and hedgerows provide suitable habitats for the hedgehogs with a hedgehog dome to be erected in a discrete location on the boundary of the hedgerow. Similarly with Badgers, measures can be put in place to maintain habitat connectivity and precautionary working methods during construction.



Existing tree line to the north edge of the development site



Existing tree line to the south edge of the development site

9 Amount and Use

Area Summary

The schedule of areas on the following pages can be summarised as follows. The design development has led to a series of changes in areas.

Gross Internal Area	(sqm)
Ground Floor CPU	699.13
First Floor CPU/FMC/Ancillary/Shared	515.98
Ground Floor Stores	559.16
Total Gross Internal Area	1774.27

Schedule of Accommodation

Level	Name	Area (sqm)	Sub Total (sqm)
	CPU		
Level 0	Goods In Office	4.61	
Level 0	Goods In	27.8	
Level 0	Dry Store - Goods	16.37	
Level 0	Dry Store - Equipment	15.07	
Level 0	Bakery Prep	12.46	
Level 0	Allergens (Gluten) Prep	9.42	
Level 0	Allergens (Nut) Prep	6.36	
Level 0	COSHH	9.01	
Level 0	Dishwash	43.21	
Level 0	Finishing Room	10.06	
Level 0	Dispatch Store Packaging	5.62	
Level 0	Blast Chillers	3.71	
Level 0	Chiller Cold room	21.45	
Level 0	Chiller Cold room	19.93	
Level 0	Dispatch	20.95	
Level 0	Cold & Freezer Rooms Area (General)	25.13	
Level 0	Main Prep	23.3	
Level 0	Cook	105.23	
Level 0	Dispatch Store	45.14	
Level 0	Out of Hours Cold Room	4.4	
Level 0	Office	15.18	
Level 0	Cold Room (Meat & Fish)	7.14	
Level 0	Cold Freezer	16.62	
Level 0	Changing/WC/Shower Facilities	29.34	
Level 0	Store	2.02	
Level 0	Freezer Room	8.94	
Sub Total			**508.47**
	ESU/Residences/Ancillary		
Level 0	Residences Store	237.78	
Level 0	ESU Store	229.16	
Level 0	Switch Room	24.75	
Level 0	Plant	33.14	
Level 0	Transformer	26.21	
Sub Total			**551.04**

Level	Name	Area (sqm)	Sub Total (sqm)	Total (sqm)
	CPU			
Level 1	Staff Rest 2	34.72		
Level 1	Office 3	32.29		
Level 1	Changing/Showers/WC Facilities	31.31		
Level 1	Linen	1.97		
Sub Total			**101.9**	
	FMC			
Level 1	Office 1	52.12		
Level 1	Office 2	17.07		
Level 1	Meeting Room	25.5		
Level 1	Store	29.85		
Level 1	Workshop	31.51		
Sub Total			**156.05**	
	Ancillary/Plant			
Level 1	Comms	12.57		
Level 1	Cleaner/COSHH	4.41		
Level 1	Internal Plant	27.66		
Level 1	Roof Access	5.42		
Sub Total			**50.06**	
	Shared			
Level 1	Changing/Showers/WC Facilities	38.86		
Level 1	Drying Room	3.99		
Level 1	Staff Rest 1	43.64		
Sub Total			**86.49**	
Total Area (excludes internal walls)				**1527.49**
	Circulation			
Level 1	Corridor 1	9.06		
Level 1	Corridor 2	12.63		
Level 1	Corridor 3	30.89		
Level 1	Corridor 4	20.9		
Sub Total			**73.48**	

Key

ESU | Residences | FMC | CPU

Circulation | Ancillary Spaces/Plant | Shared FMC & Residences

Buttress

Architects | Masterplanners | Heritage Consultants