MidlandMet Learning Campus Site concept





Site location plan

A Place for All

Welcoming for parents, students, staff and community A flagship building A gateway to the hospital A community spirit A welcoming public realm Flexible, robust and sustainable Adaptable for future growth Promotes Health & Wellbeing Value for money



Masterplan regeneration vision







Prevailing Wind



- SUDS and high quality public realm
- Landscape buffer
- Meanwhile garden/allotment uses
 - Future high street development
 - Learning Campus as the catalyse of regeneration and a hub for

McDonald's Vehicle Entrance
McDonald's
McDonald's Surface Car Parking
Tall blank facade
Run-down industrial buildings
Site Opportunities

community

- Visual and physical link to Hospital
- Clear visible entrance approach along Grove Street
- •••• Connection to site across Grove Lane from west residential area
- •••• Back of house access / servicing / deliveries off Grove Lane

Landscape / Public Realm

Meanwhile Community Uses

Promoting Health & Wellbeing



MidlandMet Learning Campus Transport

The site is well situated for public transport. It has excellent links to a range of high frequency bus, rail and Metro services that can be accessed within a 30 minute walk of the site. Services start early in the morning and continue until late at night and a similar level of provision continues at weekends. The proposed Learning Campus is also located within walking and cycling distance of a significant number of residential areas meaning these are realistic modes of transport for many students and staff to access the development. As such there is an excellent opportunity to promote sustainable and active travel modes to future users of the site and to minimise the reliance on private cars. The diagram below shows the site flank by the MMUH, and surrounded by the transport infrastructure built for the hospital.



A Range of Social Spaces





Second Floor



 A^{z}

1 0 1 2 5m

Public to private gradient

- Shared common ground floor and café space
- Central staircase space that can be used for events and to create space for staff, students and visitors to use the building in an ad-hoc manner. (sticky campus).
- Spaces to advertise courses and opportunities
- Common sports room / space for hire that can offer a range of opportunities outside normal business hours
- Access to learning works and clear pathways into further education, higher education and employment all under one roof
- Dedicated state-of-the-art classrooms on upper floors located around shared common space for meetings, collaboration and team-working - this will all help to encourage the best possible educational environment
- Flexible building management that means it can be used at evenings and weekends as well as during the day



MidlandMet Learning Campus

Internal Environment

Inclusive & Accessible Design

The building will provide opportunities to build health and education across the local community. It is important to design for the widest range of people within the local community – we want to hear your views.

By designing for the widest range of people, the project can benefit more people. As a public building, the proposed Learning Campus will be designed for inclusivity. It is envisaged as a beacon for community engagement and inclusivity. Regardless of potential barriers (physical or mental challenges) the proposals will seek to remain open and inclusive and the institutions that use the building are committed to encouraging as diverse and broad ranging group of people to be able to use the building.



Large Open Public Staircase





The central feature staircase is an inviting space, visible from both entrances immediately across the cafe. It is a hard-working stair and can be adapted to all sorts of activities, including breakout and social spaces, informal lecture and meeting space, and can be used for display and reading corner.

The fabric of the building will be designed to facilitate level access throughout, promote assisted movement for those who struggle with mobility, sight or hearing. The spaces and material palette will be selected with neurodiversity in mind (meaning neurodivergent parts of society feel comfortable and confident to use the spaces inside and around the building).

Creating a healthy and sustainable internal and external environment (focussing the use of natural materials, increasing natural daylight and ventilation, offering long views in and out and connecting with nature) will help to balance the physical and mental well being of people that use the building.

The diagram below demonstrates the aspiration to create a welcoming and permeable public realm ground plane in the heart of the site, connecting Learning Campus with the other two future development plots. It is an opportunity for place making, promoting health and wealth being, and creating relaxing environment for the student, NHS staff and the local communities.



Open Flexible Breakout Spaces

Back of House, Facilities Management & Secure Zones





MidlandMet Learning Campus Building concept

Materiality - Local Context







Massing concept





Learning Campus sits on the same footprint of the historic factory on site Recessed to provide Recessed to provide south facing shading, main entrance and route to MMH

Sawtooth roof for industrial heritage reference

Facade







Roof-scape and Internal Environment



Collaborative stair







Concept Sketch

Net Zero Carbon Building

Reducing energy in use through passive design principles

- A Efficient form factor and high performance facade
- B Spatial arrangement responding to the site and orientation - café facing south and west on ground floor, providing the first views of the building, spilling out into the public realm, with canopy or shelter to create protected area
- **G** Glazing ratios responding to orientation and balancing heat gains on S and W facades specifically – shading to be considered (horizontal on south, vertical can be used on W) no more than 40% glazing on average over all facades, passive design analysis to determine exact distribution at Stage 3



Reducing embodied carbon through efficiency measures and specification

- 1 Structural options and grids have been reviewed for efficiency and optimised for embodied carbon
- 2 If steel is agreed, re-use options can be explored at Stage 3. If a concrete frame agreed, cement replacements to be considered.
- 3 Larger and smaller spaces are grouped for stacking and avoidance of transfer structures. MEP strategy has been developed for simplicity of distribution.

- D Operable facades, strategy driven by maximising natural ventilation, cross vent and stack vent
- E Sound attenuated ventilation with integrated heat recovery to enable low energy ventilation and good air quality
- F All-electric MEP strategy to benefit from decarbonising national grid
- G Maximise renewables on site on the S facing pitches of the north lights - solar radiation and solar potential analysis to be undertaken at Stage 3 to optimise roof pitch angle to avoid over-shading

4 MMC is to be considered but the embodied carbon implications also accounted for in determining which categories to utilise

- **5** Low carbon facade options have been explored in this Stage 2 report.
- 6 Internally, materials have been optimised for cost and carbon reductions, ensuring omission where possible and self-finishing options. This reduces chemical finishes and maintenance burdens.
- 7 Timber can be used internally to make the spaces feel welcoming and improve air quality from reduced VOCs and formaldehydes.
- 8 Composite windows achieve lower embodied carbon than full aluminium and are long-lasting. Stage 3 study to be done to determine if double or triple glazing is the best long term option in regards energy use.
- **g** Explore crushing aggregate from surrounding demolition sites or spoil from excavations to make a polished screed/ concrete ground floor internally and externally. Hardwearing and low embodied carbon.
- Long term adaptability achieved through structural grid, mobile furniture and careful servicing strategy.
- **11** Reduced operational waste
- **12** Design for deconstruction