

Cambridge Halls, Manchester

Environmental Statement Volume 3: Environmental Management Plan (EMP)

April 2025

Turley

This document provides a summary of all the mitigation committed to within **Volume 1: Technical Chapters 6 – 13**, to manage the environmental effects during the construction and operational stages of the Proposed Scheme and to establish a suitable mechanism to link to planning conditions, thereby delivering and securing mitigation. This will give Manchester City Council (MCC) confidence in the residual effects identified in this ES.

This Environmental Management Plan (EMP) has been produced as a separate Volume in the ES. However, this document should be read in conjunction with **Volume 1: Primary Report and Supporting Figures**, **Volume 2: Technical Appendices to the Primary Report** and **Volume 4: Non-Technical Summary**.

As set out within **Volume 1: Chapter 2: Approach to EIA**, the EIA has considered primary, secondary and tertiary mitigation in line with IEMA, Implementing the Mitigation Hierarchy from Concept to Construction – August 2024¹.

Each of the **Technical Chapters 6 – 13** of **Volume 1** have considered primary and tertiary mitigation prior to undertaking the assessment of likely significant effects. Following the conclusion of effects based on the Proposed Scheme, any further mitigation measures or monitoring arrangements (i.e. secondary mitigation or enhancement) have been detailed.

The mitigation relied upon to ‘scope out’ environmental topics as part of the EIA Scoping Report (**Appendix 2.1** of **Volume 2**) is also included within the EMP (**Table 1**) (albeit these have been developed further, where appropriate).

The three types of mitigation considered are defined as:

- **Primary** – modifications to the location or design of the Proposed Scheme made during the pre-application stage that are an inherent part of the project;
- **Secondary** – actions that will require further activity in order to achieve the anticipated outcome; and
- **Tertiary** – actions that would occur with or without input from the EIA feeding into the design process. These include actions that will be undertaken to meet other existing legislation requirements, or actions that are considered to be standard practices used to manage commonly occurring environmental effects.

All primary, secondary and tertiary mitigation referenced throughout the Environmental Statement (ES) has been collated and are summarised in the EMP (**Table 1**).

It should be noted that, given the definition of primary mitigation and the fact that the measures are inherent to the Proposed Scheme, all primary mitigation is to be secured through the plans submitted for approval referred to in **Volume 1, Chapter 4: Development Specification** and any associated design strategies / principles referenced in **Volume 1, Chapter 4: Development Specification** that are submitted in support of the ES or the Application.

With respect to tertiary and secondary mitigation, it is assumed these measures will be secured through appropriately worded planning condition(s) and / or a Section 106 Agreement as determined by MCC, as the determining authority.

Mitigation measure	Description / details of measure
Primary Mitigation	
Massing and orientation	Built form of the Proposed Scheme will be across two distinct plots of buildings (Phase 1 in the south of the Site and Phase 2 in the north of the Site), with height increasing to the north east corner in each building plot. The height and massing of the built form within the Site have been designed to integrate with the surroundings and the proposed two tall towers are positioned to the east of the Site, closest to the city centre, while the buildings that complete the blocks are sited to the west to relate to the local scale of the residential area of Hulme. This creates a logical stepping down in height towards Hulme from the city centre. The building massing has been refined during the project design stage to minimise wind downdraft into the internal courtyards and the underpasses on the east side of the Site through the following: • The towers are located on the north-east corners of each courtyard and orientated with their corner facing south-south-west to encourage prevailing winds to move around the tower, rather than down into the courtyard; • Increases in massing height from south to north and west to east (excluding the towers) has been kept to a minimum to reduce impacts of downdraft in the courtyard and onto the surrounding streets; and • The tower corners are slightly rounded which encourages wind to flow around the towers at high level. This will also help soften the development and add visual interest at the gateways to the Site. A canopy/roof has been included in the courtyard to Phase 1 to help shelter users from any down draft and disrupt a wind mechanism forming between the courtyard, through the underpass in the east massing, to the east side of the Site. Porous walls/screens/netting will be placed on the podium (Level 07) around the Multi Use Game Areas (MUGA).
Façade design and materiality	The Proposed Scheme will not contain large areas of glass, with the façade being broken into small, recessed glass elements. The Proposed Scheme will utilise a contemporary material palette comprising a mixture of precast concrete, PPC aluminium and glazing to provide visual interest and contrast with the prevailing sandstone and brick materials present in historic buildings in the vicinity.

Mitigation measure	Description / details of measure
	Decorative metal panels (inspired by local buildings) will be used at the ground level, on horizontal panels on the window frames of the lower storeys, and at the curved nodes and entrances, contributing to the design quality and visual interest of the scheme. A decorative parapet will enclose the roof plant in order to maintain visual amenity.
Healthcare provision	An NHS healthcare facility will be accommodated on-Site.
Student move in/out strategy	The Applicant will have a management plan in place on move in/out days to help control the movement of vehicles around the area to minimise the potential for any disruption to the operation of the highway.
Parking	There will be no parking provision on Site. Provision for disabled parking will be provided on Higher Chatham Street, and Lower Chatham Street and Cavendish Street, providing access through the Site from Higher Cambridge Street.
Landscaping, public realm and biodiversity strategy	Open space will also be provided on the ground floor and Floor 01 through the provision of 2 green courtyards, a central green space with private and public amenity areas and a tree and ornamental shrub planted building curtilage with high quality new surfacing that is open to the public. The spaces proposed will include biodiverse planting include species that attract pollinators and offer seasonal variety, high quality surface materiality and street furniture to accommodate different user types. The western elevation of the proposed building will be set back from the street edge along Cambridge Street to allow for tree-planted verges and rain gardens, improving the environment along the road and softening the appearance of the Proposed Scheme. The pedestrian route through the centre of the Site will be maintained and enhanced for pedestrian safety, with areas of seating and planters, which also benefits from a more vibrant and active front, with semi-private spill-out spaces from the new building onto the route. Open space will be provided on Level 07 of both phases which includes raised planters with opportunity for 'grow your own' spaces, diverse mixed ornamental planting, a range of spaces for private and group study and the opportunity to access sunlight, away from street level and overshadowing. Areas dedicated to student wellness and an active lifestyle, including MUGA sports pitches, outdoor calisthenics spaces and a running track, responding to the active use spaces within the building will also be provided on the Level 07 roof terraces.

Mitigation measure	Description / details of measure
Surface water drainage strategy	The proposed surface water drainage will not increase the runoff rate and will include an allowance for climate change in accordance with relevant guidance. Sustainable Drainage Systems (SuDS) will be incorporated into the surface water drainage network, in accordance with CIRIA 753 – The SuDS Manual² where practical. The following measures are proposed: • Implementation of sustainable drainage features such as raingardens, blue roofs, tree pits etc; • Ensuring adequate elevation of critical infrastructure on or below ground floor level; • Ensure proposed external falls don't fall towards the building entrances/ exits; • The drainage strategy will reduce surface water runoff to 50% of the current brownfield runoff rate, incorporating a 45% allowance for climate change during a 100-year return period rainfall event; and • Provision of surface water storage to meet local authority requirements, which will be agreed with Lead Local Flood Authority at the next design stage.
Foul water drainage strategy	The Site is located in the Manchester City Centre where the foul sewer network is very likely to have a capacity for new development^a. It is expected that the Proposed Scheme will reuse existing foul drainage gravity connections at this stage. Offsets will be set out by United Utilities and Building Regulations (H4) will be implemented by the design team to ensure the condition of the existing sewers is reviewed and impacts are minimised as part of the Proposed Scheme.
Potable water strategy	The Proposed Scheme will include water saving measures such as water saving fixtures and fittings to reduce water consumption and will target 7 BREEAM credits, including: • Wat 01 (3 credits) comparable to a 40% improvement over the BREEAM "base-building; • Wat02 – Water monitoring (1 credit); • Wat03 – Leak detection system (1 credit) and flow control devices (1 credit); and • Wat04 – Water efficient equipment (1 credit).

^a This will be confirmed with United Utilities as the design progresses and foul demand estimates have been provided by the design team.

Mitigation measure	Description / details of measure
Embodied carbon strategy	A RIBA Stage 3 Life Cycle Embodied Carbon Assessment of the Proposed Scheme has been undertaken to assess and where possible reduce construction carbon through consideration of scheme design (e.g. slab thickness), construction materials, specifications and suppliers, and with a particular focus on typical carbon ‘hot spot’ materials such as concrete and steel. A BREEAM Pre-Assessment of the Proposed Scheme was undertaken by Waterman Building Services Ltd in February 2025 predicting an “Excellent” rating, including credits for Man 03 - Responsible Construction Practices and Mat 03 - Responsible sourcing of construction products.
Energy strategy	The energy strategy for the Proposed Scheme will follow a fabric-first approach, following the energy hierarchy to ensure the energy demand has been reduced through passive design measures. The Proposed Scheme will incorporate renewable technology which includes the use of Air Source Heat Pumps for domestic hot water, and photovoltaic panels for onsite energy generation. The energy strategy proposes an entirely fossil fuel free approach with a 6% carbon reduction over Part L 2021³, in alignment with the Manchester Local Plan⁴. An Energy Strategy has been prepared for the Proposed Scheme demonstrating how buildings will comply with the requirements of the current Building Regulations Part L 2021 and the requirements of PfE policies JP-S1, JP-S2 and JP-S3, through incorporation of energy hierarchy principles. A BREEAM Pre-Assessment of the Proposed Scheme was undertaken in February 2025 predicting an “Excellent” rating, including credits for Ene 01 Energy Performance, Ene 02 Energy Monitoring and Ene 04 Low Carbon design.
Lighting Strategy	All future lighting installations will be designed in line with best practice, guidance and standards, including but not limited to: CIE 150: 2017 – Guide on the Limitation of the Effects of Obtrusive Light from Outdoor Lighting Installations, 2nd Edition⁵; ILP GN01 - Guidance Notes for the Reduction of Obtrusive Light 2021⁶; BS EN 12464 – 2 2014 – Outdoor Work Spaces⁷; LG 6 (CIBSE) – The Exterior Environment 2016⁸; and ILP Guidance Note 08/18 Bats and Artificial Lighting in the UK⁹. Measures to mitigate effects from obtrusive light, as set out in the identified guidance, include the selection of the correct type of luminaire, the use of shields, hoods (as required), as well as the design and positioning of lights (e.g. power, orientation, and height of the luminaire).

Mitigation measure	Description / details of measure
Building safety strategy and Site security	The required emergency producers/practices (i.e. Fire Emergency Evacuation Plan (FEEP)) or apparatus/instruments (i.e. smoke detectors/sprinklers) required by law for the uses as part of the Proposed Scheme will be in place. In addition, the buildings will be designed, in line with Building Regulations Approved Document B: Fire Safety¹⁰, with appropriate fire preventative measures (i.e. fire doors, extinguishers etc.) and all external façades and materials will meet the necessary fire resistance standards set out within Building Regulations and by law. The design of the Proposed Scheme will be informed by ‘Secure by Design’ principles and appropriate design. Site management measures (including appropriate lighting and digital entry systems at each building) will be implemented to ensure that the potential for crime and anti-social behaviour is minimised, and the Proposed Scheme will have on-site security staff present 24 hours a day. There will be a diesel generator for the secondary supplies to firefighting lifts and smoke extract fans and diesel pumps for a wet risers and commercial sprinklers. These will require routine testing and maintenance for one hour a month.
Operational waste strategy	The Proposed Scheme has been designed in order to take account of appropriate provision for waste storage and handling facilities/areas, inclusive of areas for segregation of waste and recycling. All waste storage/handling facilities have been designed in accordance with British Standard (BS) 5906:2005 Waste Management in Building – Code of Practice¹¹.
Climate change resilience measures	The following key climate resilience measures are considered to be integral to the Proposed Scheme and embedded within the design: • Water saving measures as set out under the ‘Potable Water Strategy’ section above; • The Proposed Scheme will be designed in accordance with current guidance and best practice, and this will include the consideration of changing climate on stability of the ground conditions, influencing foundation design as necessary; • The Proposed Scheme includes for planting of trees, green infrastructure and landscaping which will enhance the biodiversity of the Site, mitigating the anticipated impacts of climate change in accordance with the England Biodiversity Strategy¹² and Natural England Climate Change Adaptation Manual¹³; • A sample of units in buildings will undergo overheating assessment in line with the requirements of Part O of the Buildings Regulations¹⁴ in order to assess and reduce the risk of summer overheating by taking into account future

Mitigation measure	Description / details of measure
	climate scenarios. Where measures are provided to reduce the risk of overheating, this will be done in accordance with the cooling hierarchy. Potential measures to be considered will include: – Limited glazing area and recessed windows to provide reduction in solar gain, alongside optimised g-values; – Exposed thermal mass to be explored; – Passive ventilation via openable windows; and – Mechanical ventilation for night purge ventilation and free cooling.
Acoustic strategy	<u>Building Façade Design</u> High-performance acoustic glazing and insulated façade treatments will be installed to achieve suitable internal noise levels in accordance with BS 8233:2014¹⁵ and relevant local policy where necessary. Internal noise limits are: • Bedrooms (night-time, 23:00–07:00): 30 dB $L_{Aeq,8hr}$ and 45 dB $L_{Amax,F}$ (not exceeded more than 10 times); and • Living rooms (daytime, 07:00–23:00): 35 dB $L_{Aeq,16hr}$. <u>Ventilation and Overheating Mitigation</u> • To avoid the need to open windows in areas affected by high external noise, Mechanical Ventilation with Heat Recovery (MVHR) systems will be installed. Additional measures to reduce overheating or attenuate noise during the overheating condition will be designed-in as necessary. <u>Building Services Plant</u> • Noise limits (to be secured by planning condition) for fixed plant and servicing equipment will be set at 5 dB below the typical background noise level (L_{A90}) at the nearest noise-sensitive receptors, in accordance with BS 4142:2019¹⁶ and local noise technical guidance. This will ensure the operational noise of external plant does not contribute to a noticeable increase in background noise levels. <u>Noise Transfer Between Uses:</u>

Mitigation measure	Description / details of measure
	- Internal noise transfer between residential and non-residential uses, such as retail, NHS facilities, and community spaces, will be controlled through appropriate acoustic insulation in line with BS 8233:2014. <u>MUGA and Gym Facilities:</u> - Multi-Use Games Area (MUGA): The design ensures compliance with noise targets set for outdoor amenity areas. Operational hours will be restricted to daytime periods (07:00-23:00) to avoid night-time disturbance; and - Gym Facilities: The design incorporates measures to mitigate structure-borne noise and vibration, including floating floors, acoustic mats, and isolated gym equipment¹⁷.
Tertiary Mitigation	
Construction Environmental Management Plan (CEMP)	A CEMP will be prepared by the Principal Contractor before the construction stage commences, which will take account of all known risks, which have been identified at pre-construction stage by the Architect / Contractor (once appointed), the design team and also through ground investigations. This will be secured by planning condition. The proposed works will be carried out in accordance with current good environmental practice and guidance for construction. Measures will include: <u>General Measures</u> - The proposed construction works will be carried out by a competent contractor that will comply with current legislation^b; - The site security arrangements for the Proposed Scheme during the construction stage will be in line with the requirements set out in the Construction (Design and Management) Regulations 2015¹⁸ and appropriate levels of security (personnel / CCTV) will be provided; - Temporary fencing / hoarding will be erected around the perimeter of the Site boundary at the outset of construction; - Appropriate housekeeping on Site for good Site tidiness; - All construction activities will be in accordance with the Considerate Constructors Scheme;

^b This includes the Health and Safety at Work etc. Act 1974; the Control of Pollution Act 1974; and Construction (Design and Management) Regulations 2015.

Mitigation measure	Description / details of measure
	• The principal contractor will identify the proposed compound locations within a Site Layout Plan; • Climate change adaptation and measures will reduce risks to human health from overheating such as provision of shaded refuges and potable water supplies during construction; and • Construction working hours¹⁹ (noisy work) will be 07:30 to 18:00 Monday to Friday; 08:30 to 14:00 on Saturday; and no noisy work on Sundays and Bank Holidays. Operations outside of these hours will be agreed with MCC.
	<u>Construction Traffic Management and Access</u> • Access to adjacent properties (i.e. St Augustine's Church, Business School and Cavendish Hall) will be maintained throughout the construction stage; • A Construction Traffic Management Plan (CTMP) will be delivered as part of the CEMP will be prepared by the principal contractor (when appointed) and will be agreed with the Highway Authority that will set out construction routing, access and working arrangements. The CEMP will manage construction traffic in the area, seeking to minimise the potential for disruption to other road users through measures such as vehicle booking systems; • The CEMP will detail outcomes of application(s) for temporary closure of roads and footways, hoarding licenses, legislative processes, etc. along with the satisfaction and discharge of Planning conditions appropriate to site working; • Provision for suitable signage (where appropriate) for pedestrian and cyclists, to minimise disruption; and • Construction traffic will be routed away from sensitive receptors where practicable, and site access points will be located to minimise noise intrusion into residential areas.
	<u>Air Quality</u> • The CEMP will be informed by the Institute of Air Quality Management (IAQM) guidance²⁰ and would include prevention measures, such as screening stockpiles of materials, deployment of windbreak netting and dampening exposed soils as appropriate and set out requirements for ongoing monitoring. It also sets out requirements for ongoing monitoring and liaison with the local community, and MCC; and • Dust and particulate matter emissions produced during demolition and construction activities would be controlled through the implementation of a Dust Management Plan (DMP) that would form part of the CEMP.

Mitigation measure	Description / details of measure
	The Site-specific air quality mitigation measures that will be implemented to reduce or eliminate construction dust are detailed within Appendix 12.1. <u>Noise</u> - Measures will include: - Incorporation of Best Practicable Means (BPM) in accordance with BS 5228-1:2009+A1:2014²¹ and BS 5228-2:2009+A1:2014²² to control noise and vibration at source during demolition and construction activities. Key measures include but are not limited to: - Use of quieter equipment and methods where practicable; - Erection of acoustic barriers or temporary screens around the Site perimeter and near sensitive receptors to reduce airborne noise emissions; - Phasing of high-noise activities to minimise their duration and ensure sensitive receptors are not exposed to prolonged periods of intrusive noise; - Adoption of vibration-reducing techniques for piling, compaction, and other high-vibration activities where feasible; and - Regular servicing and maintenance of construction plant and equipment to reduce noise emissions; - Continuous noise and vibration monitoring at key sensitive receptor locations during high-impact activities, such as piling or demolition, to ensure compliance with agreed thresholds; and - Implementation of a Community Liaison Strategy to maintain open communication with residents and stakeholders. This will include advance notifications of noisy activities, complaints management processes, and the establishment of a contact point for concerns. <u>Biodiversity</u>

Mitigation measure	Description / details of measure
	• Inspections prior to demolition and/or as a result in any change in conditions or delay beyond 12 months and supervision by Ecological Clerk of Works as appropriate will be implemented.
	<u>Lighting</u> • Lighting will be controlled through a series of best practice measures, in line with lighting industry standards and guidance including the CIE publication 'Technical Report Document 129²³ and BS EN 12464-2:2014²⁴; • The following measures are proposed in order to control Light Spill, Glare and Sky Glow effects and thus manage light pollution: – Where practicable, construction lighting in the EIA Boundary would be designed to comply with Environmental Zone E4 in accordance with the ILP Guidance Note GN01²⁵; – Illuminance levels arising from temporary lighting to be designed in accordance with BS EN 12464-2: 2014²⁶ and CIE 129²⁷; – Placement of temporary lighting required to ensure safe working conditions and to maintain security, to have due regard of sensitive receptors (i.e. occupied residential premises); – Lighting to be directed so as avoid unnecessary Light Spill outside of construction areas and to ensure that the light distribution is toward the task area; – Lighting to be switched off when not required for safe working conditions and Site security; – Use of light shields/baffles to control upward light to within the maximum 15% set out in the ILP Guidance Note GN01²⁸, where possible; – Lighting to be kept at 0° tilt to avoid Sky Glow, where practicable; and – Light dimming and automatic switch off would be used (where appropriate).

Mitigation measure	Description / details of measure
	<u>Waste</u> • The remedial solution during demolition works will include the removal of hazardous substances²⁹ (including asbestos³⁰, heavy metals, PAHs, sulphate, hydrocarbons, other organic/inorganic contaminants and gas - carbon dioxide and methane) which will require specialist removal. All such works will be undertaken by an appointed contractor and disposed of by the contractor in line with relevant regulations and legislation requirements; • Any waste considered to be hazardous, arising from demolition or remedial activities, will be handled, processed and removed from Site by suitability qualified contractors, all being undertaken in line with The Hazardous Waste (England and Wales) Regulations 2005³¹; • The CEMP will be informed by the waste provisions of the Environmental Protection Act 1990³² and the Environmental Protection (Duty of Care) Regulations 1991³³ and will set out the principles and legal requirements relating to waste, including any hazardous waste that is encountered and required to be exported off-Site for disposal; and • The CEMP will also describe how materials will be managed efficiently and disposed of legally during construction. It will also outline the aims, objectives and on-going management responsibilities, including management practices, to be implemented during the construction stage, and will set targets for the reduction, diversion from landfill and reuse of waste. <u>Ground and Earthworks</u> • The management of waste and potential pollutants used on Site will be controlled through the CEMP, which will detail the required mitigation measures. This will include best practice measures, including (where applicable): bunded storage; designated wheel washing areas; settling basins; covering stockpiles of materials to prevent dust and runoff; dampening exposed soils as appropriate; and set out requirements for ongoing monitoring and liaison (with the local community, the Environment Agency and MCC as appropriate); • Risks to human health during construction are required to be managed under the Health and Safety at Work Act (1974)³⁴ and are typically mitigated by applying good working practices set out in a Code of Construction Practice (CoCP)/CEMP and Health and Safety Plan; and • The Principal Contractor will ensure all necessary groundworks are implemented in order to provide suitable construction platform(s) (i.e. removal of any compressible/unstable ground encountered) during enabling works and/or

Mitigation measure	Description / details of measure
	construction, in line with relevant standards and building regulations including CIRIA Report C572: Treated ground engineering properties and performance³⁵; British Research Establishment document FB75: Building on Fill – Geotechnical Aspects³⁶ and British Standard 6031:2009: Code of Practice for Earthworks³⁷. This will include the consideration of changing climate on stability of the ground conditions, influencing foundation design as necessary. <u>Flood Risk and Drainage</u> • A Surface Water Management Plan (in accordance with best practice guidance such as The SuDS Manual (C753)³⁸ and BS8582:2013 Code of practice for surface water management for development sites³⁹) will be required to be established on Site by the contractor to control and manage surface water run-off; and • A temporary drainage strategy will be in place as part of the Contractors Site Management Plan, and the appropriate control measures will be addressed as part of the responsibilities under CDM 2015.
Demolition audit	Prior to demolition, a demolition audit will be carried out to review opportunities for the reuse and recycling of materials from the existing buildings. It is anticipated that where possible materials will be reused or recycled which can help reduce GHG emissions.
Remediation strategy	In the event that contamination is identified, a programme of mitigation or remediation work will be carried out as part of the enabling works in line with a Remediation Strategy approved by the regulators and MCC. The requirement for clean cover soils over any contaminated ground will be assessed within the contamination risk assessment and implemented through a remediation strategy.
Asbestos strategy	If asbestos risk registers are not available, then an asbestos survey will be conducted prior to the demolition works and any recommended mitigation implemented.
Groundwater contamination strategy / foundation works risk assessment	If significant ground or groundwater contamination is encountered during the ground investigation (for the creation of piled foundations), a Foundation Works Risk Assessment (FWRA) will be prepared and implemented through the planning process.
Archaeology strategy	The Applicant will consult with GMAAS as part of the assessment process, and should they require it a programme of archaeological works will be developed and agreed with GMAAS by means of a written scheme of investigation (WSI).

Mitigation measure	Description / details of measure
Unexploded ordnance strategy	In the event that a risk assessment by Unexploded Ordnance (UXO) specialists is required and conducted, the necessary tertiary mitigation measures will present within the risk assessment. Tertiary mitigation measures (at medium risk of UXO areas) include a UXO specialist on-site and Site-specific Unexploded Ordnance awareness briefings to all personnel conducting intrusive works.
Noise management plan	Noise Management Plans will be implemented for the MUGA and gym facilities, including operational restrictions such as limiting hours of use and managing user behaviour. These can be secured by condition if deemed necessary.
Operational plant maintenance and testing	Ongoing maintenance of external plant and equipment to ensure noise emissions remain within agreed limits. Planning conditions will be applied to secure compliance with noise limits set for building services plant, with post-installation noise testing required where appropriate.
Secondary Mitigation	
Wind mitigation strategy	Active mitigation will include locking the doors on windy days at the discretion of the users. This will be secured through an on-Site management plan and training. Passive mitigation could include one or a combination of the following types of interventions: • Further development of the canopy design in the courtyard of Phase 01 and the introduction of a canopy in Phase 02; and • Detailed design of hard and soft landscaping such as artwork, wayfinding or information signs, planting mounds, shrubs, and/or trees to dissipate the winds energy within the courtyard before it reaches the underpass. Mitigation will be secured via condition with details of the additional mitigation (including location, size, porosity and orientation) tested, verified and documented before occupation of the Proposed Scheme.
Acoustic/overheating strategy	The acoustic strategy will include the following measures: • Agreement will be sought from MCC and Building Control and Building Safety Regulator that reliance on openable windows for mitigating overheating is generally acceptable for bedrooms located on the shielded, rear-facing façades, where noise levels are lower, and exceedances of Approved Document O criteria are expected to be marginal;

Mitigation measure	Description / details of measure
	• During warmer months, when overheating is most likely to occur, Purpose-Built Student Accommodation typically has an occupancy rate of around 25% due to term times. Operational management measures will ensure that longer-term residents are allocated rooms overlooking central courtyards or shielded façades where noise levels are lower. This will be controlled as part of a letting plan which will be secured by condition if necessary; and • For Cambridge Street-fronting bedrooms, where external noise levels are higher, reliance on openable windows is not acceptable under current guidance requirements. Alternative overheating mitigation measures in accordance with the Building Regulations, such as MVHR systems, will be required to maintain internal noise levels within ADO guidelines.

References

- ¹ IEMA (August 2024) Implementing the Mitigation Hierarchy from Concept to Construction.
- ² https://www.ciria.org/CIRIA/CIRIA/Item_Detail.aspx?iProductCode=C753
- ³ [Conservation of fuel and power: Approved Document L - GOV.UK](#)
- ⁴ [Local plans and supplementary planning documents | Local plans and supplementary planning documents | Manchester City Council](#)
- ⁵ [Guide on the Limitation of the Effects of Obtrusive Light from Outdoor Lighting Installations, 2nd Edition | CIE](#)
- ⁶ [Guidance Note 1 for the reduction of obtrusive light 2021 | Institution of Lighting Professionals](#)
- ⁷ [BS EN 12464-2:2014 | 31 Jan 2014 | BSI Knowledge](#)
- ⁸ [Lighting Guide 06: The exterior environment \(2016\) | CIBSE](#)
- ⁹ [layout](#)
- ¹⁰ [Fire safety: Approved Document B - GOV.UK](#)
- ¹¹ [BS 5906:2005 | 30 Dec 2005 | BSI Knowledge](#)
- ¹² https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69446/pb13583-biodiversity-strategy-2020-111111.pdf
- ¹³ <http://publications.naturalengland.org.uk/publication/5679197848862720>
- ¹⁴ <https://www.gov.uk/government/publications/overheating-approved-document-o>
- ¹⁵ [BS 8233:2014 | 28 Feb 2014 | BSI Knowledge](#)
- ¹⁶ [BS 4142:2014+A1:2019 | 30 Jun 2019 | BSI Knowledge](#)
- ¹⁷ It is expected that the noise and vibration limits will be controlled through a planning condition to ensure compliance during operation.
- ¹⁸ Secretary of State (2015). Construction (Design and Management) Regulations 2015.
- ¹⁹ Manchester City Council. Tackle a noise problem – Noise from building sites. Available at: [Noise from building sites | Tackle a noise problem | Manchester City Council](#) [Accessed: 070624].
- ²⁰ [Construction-Dust-Guidance-Jan-2024.pdf](#)
- ²¹ [BS 5228-1:2009+A1:2014 | 1 Jan 2009 | BSI Knowledge](#)
- ²² [BS 5228-2:2009+A1:2014 | 1 Jan 2009 | BSI Knowledge](#)
- ²³ CIE - Technical Report Document 129 (1998) Guide for Lighting Exterior Work Areas.
- ²⁴ British Standards (2014) BS EN 12464-2 – Lighting of Work Places – Part 2: Outdoor Work Places.
- ²⁵ Institute of Lighting Professionals (ILP) (2021) Guidance Notes for the Reduction of Obtrusive Light (GN01).
- ²⁶ [BS EN 12464-2:2014 | 31 Jan 2014 | BSI Knowledge](#)
- ²⁷ [Guide for lighting exterior work areas | CIE](#)
- ²⁸ [Guidance Note 1 for the reduction of obtrusive light 2021 | Institution of Lighting Professionals](#)
- ²⁹ The Hazardous Waste (England and Wales) Regulations 2005, No. 894.
- ³⁰ The Control of Asbestos Regulations 2012, No. 632.
- ³¹ [The Hazardous Waste \(England and Wales\) Regulations 2005](#)
- ³² Environmental Protection Act 1990 No. 43 Available at: <https://www.legislation.gov.uk/ukpga/1990/43/contents> [Accessed: 18/01/2023].
- ³³ Environmental Protection (Duty of Care) Regulations 1991 No. 2839. Available at: <https://www.legislation.gov.uk/uksi/1991/2839/made#:~:text=The%20duty%20requires%20such%20persons,person%20or%20to%20a%20person> [Accessed: 18/01/2023].

³⁴ [Health and Safety at Work etc. Act 1974](#)

³⁵ [Item Detail](#)

³⁶ British Research Establishment (2015). FB75: Building on Fill - Geotechnical Aspects. 3rd Edition.

³⁷ British Standard (2009). 6031:2009: Code of Practice for Earthworks.

³⁸ CIRIA (2015). The SuDS Manual (C753).

³⁹ BSI (2013). BS8582:2013 Code of practice for surface water management for development sites. Available at: [BS 8582:2013 | 30 Nov 2013 | BSI Knowledge \(bsigroup.com\)](#)