

Albert Bridge House, Manchester
Environmental Statement
Volume 3: Environmental Management Plan

June 2025

This document provides a summary of all the mitigation measures identified in the EIA process undertaken for the Application in order to manage the environmental effects during the construction and operational stages and to establish a suitable mechanism to secure and deliver mitigation. This document should be read in conjunction with **Volume 1: Primary Report and Supporting Graphics** and the EIA Scoping Report (**Appendix 2.1**).

As set out in **Chapter 2: Approach to EIA** of **Volume 1**, the EIA has considered primary, secondary and tertiary mitigation in line with the Institute of Environmental Management & Assessment's (IEMA) (now ISEP) Implementing the Mitigation Hierarchy from Concept to Construction^a. These are defined as follows:

- **Primary** – modifications to location or design 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 measures referenced / utilised throughout **Technical Chapters 6 – 11** of **Volume 1** have been collated and are summarised in the Environmental Management Plan (EMP) (**Table 1**).

The mitigation relied upon to 'scope out' technical topics within the EIA Scoping Report (**Appendix 2.1**) and, where appropriate, in **Technical Chapters 6 – 11** of **Volume 1** is included within the EMP (**Table 1**) (note that where this has been superseded / updated following further mitigation development in the ES, this is contained within the first tabular summary).

^a IEMA (ISEP) (2024) Implementing the Mitigation Hierarchy from Concept to Construction.

Table 1: EMP

ES

Technical topic / stage	Primary and tertiary mitigation The primary and tertiary mitigation measures presented below have been collated from Technical Chapters 6 – 11 of Volume 1
Noise and vibration	
Construction	• A CEMP will govern the construction stage commitments proposed to manage / control noise and vibration; • Best Practical Means (BPM) will be adopted, as defined in the CoPA, along with practical advice received from MCC; • Static / semi-static plant and equipment will be located centrally or be screened with a noise barrier. Envisaged plant items include crushers, generators and water pumps; • Mobile plant items will not traverse near boundaries more than necessary or idle unnecessarily; • Control mechanisms limiting vibration from piling will be in accordance with BS 5228-2; • Plant will only be located at closest working distances to sensitive receptors when necessary. Most of the time, movements will be considerably further away; • Engines will not be permitted to idle for unnecessary periods of time; and • A complaints procedure will be managed on the Site, which will log all complaints received, investigate the nature of the complaint and seek to avoid a repeat where practically possible.
Operation	• Landlord and tenant buildings services plant will have appropriate noise and vibration control measures and be located in enclosures or noise screened areas or at a distance away so as to be in accordance with BS 4142 and PNTG at nearest façades or open spaces; • Façade design will include sound insulation specification to ensure that external noise breakout from internal commercial or entertainment noise will be managed in accordance with PNTG and other available guidance; • Façade design will include sound insulation specification to achieve the internal noise criteria of BS 8233 and PNTG as may be appropriate in habitable rooms;

Technical topic / stage	Primary and tertiary mitigation The primary and tertiary mitigation measures presented below have been collated from Technical Chapters 6 – 11 of Volume 1 • The guidance of ADE for internal sound insulation will be enhanced to a minimum of 60dB DnT,w between non-domestic uses and new homes; • Lease agreements or sale agreements will include a maximum set of internal noise levels for the operation of commercial and retail / restaurant / café (entertainment noise) premises within the Proposed Scheme and will require the incorporation of electronic noise limiting devices or other systems to control amplified music outputs; • Deliveries and collections to new commercial, retail, restaurant / café (entertainment premises) within the Proposed Scheme will be governed by lease agreements or sale agreements and will include an exclusion time period from 23:00 - 07:00 hours unless otherwise agreed by MCC; • Lease agreements or sale agreements for commercial, retail / restaurant and café (entertainment premises) floorspace within the Proposed Scheme will include control of external bottle bin charging or other external refuse disposal in accordance with MCC license conditions or if not applicable an exclusion time period from 00:00 - 07:00 hours would apply; • Internal vibration transfer between different building uses or from building services plant will be designed in accordance with BS 6472 and PNTG; • Adoption of specific Tenant acoustic design requirements where they do not conflict with other requirements for noise control, sound insulation or vibration control; • The design of Block A and Block B is for mechanical ventilation to achieve ADF and ADO requirements and the attenuation of the ducted air intakes and exhausts by design will not degrade the façade performance; and • The internal sound insulation separations between new homes within the Proposed Scheme will comply with the guidance of ADE.
Townscape and visual	
Construction	-
Operation	• The proposed built form is considered to be of high architectural quality and elevations will include high quality detailing and materials and utilise finishes and hues, which are evident in the local townscape. Block A and Block B elevation materials include anodised aluminium panels, perforated metal panel with glazing behind, oxidised aluminium spandrel, coloured interlayer glass

Technical topic / stage	Primary and tertiary mitigation The primary and tertiary mitigation measures presented below have been collated from Technical Chapters 6 – 11 of Volume 1
	and glazing. Block C elevation materials include anodised solid profiled panel, bronze colour, perforated anodised aluminium profile panel, bronze colour, insulated coloured spandrel panel and glazing; • Three key areas of public realm are proposed at the ground level internally within the Site: Urban Arboretum between the Blocks across the centre of the Site, Native River Corridor along the northern boundary of the Site providing greater connectivity to the adjacent areas and City Square, which interfaces with Motor Square to the east of the Site; • There are also communal amenity areas within Block A and Block B, which will provide access to amenity space for future residents and terrace areas within Block C for future employees / visitors. • New tree planting is proposed to improve the street scene and the integration of the Site with the River Irwell; and • The installation of lighting in external areas is required to provide a safe and secure night-time environment, whilst ensuring that the lighting design respects the setting of the surrounding area and minimises the effect on sensitive receptors. Lighting within the public realm will comprise amenity / architectural lighting, designed to accentuate the architectural value of the structure and the elements of the public realm. This will be achieved through various lighting elements, including ambient lighting, task lighting, accent lighting and decorative lighting elements. In addition, illuminated advertisements / signage associated with the commercial uses are anticipated. The detailed lighting scheme will be designed and installed in line with relevant guidance and standards (e.g. British Standard 5489-1:2020 Design of road lighting-Lighting of roads and public amenity areas^b, Code of practice, CIBSE Lighting Guide (LG) 6: The exterior environment^c and CIE 126: Guidelines for Minimising Sky Glow^d) and will consider the surrounding sensitivities including existing neighbouring residential properties and sensitive ecological areas and is based on the use of low light pollution installations.

Daylight, sunlight and overshadowing

Construction -

Operation -

^b British Standard 5489-1:2020 Design of road lighting -Lighting of roads and public amenity areas.

^c CIBSE (2016) Lighting Guide 6: The exterior environment.

^d CIE (1997) 126: Guidelines for Minimising Sky Glow.

Technical topic / stage	Primary and tertiary mitigation The primary and tertiary mitigation measures presented below have been collated from Technical Chapters 6 – 11 of Volume 1
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Wind microclimate

Construction	-
Operation	Primary mitigation is provided by the scale, massing and form of the Proposed Scheme.

Socio-economics and human health

Construction	-
Operation	- The Proposed Scheme has been informed by 'Secured by Design' principles and appropriate measures to enhance community safety and minimise the risk of anti-social behaviour and crime; - The Proposed Scheme will deliver E (a, b, c) retail / restaurant / café space in Block B and Block C as well as E (g) office floorspace in Block C; - The Proposed Scheme will provide ground-level public amenity areas across all buildings and upper level private amenity space for future residents within Block A and Block B and upper level amenity space for future employees / visitors in Block C; and - The Proposed Scheme will deliver a mix of sizes of apartments for a diverse range of accommodation needs in Block A and Block B.

Climate change

Construction	- The commercial space is targeting BREEAM 'Outstanding' certification for which a minimum score of 85% is required together with various minimum requirements. A range of BREEAM credits that will mitigate construction-stage GHG emissions are targeted as part of the anticipated score of 89.98%, as follows: - Wst 01 Construction waste management aims to reduce construction waste by encouraging reuse, recovery and best practice waste management practices to minimise waste going to landfill. 4 of 6 available credits are targeted in relation to undertaking a pre-demolition audit, achieving construction resource efficiency of between $\leq 7.5\text{m}^3$ and $\leq 6.5\text{m}^3$ waste generation per 100m² GIA floorspace, and diverting resources from landfill. A potential
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Technical topic / stage	Primary and tertiary mitigation The primary and tertiary mitigation measures presented below have been collated from Technical Chapters 6 – 11 of Volume 1
	additional credit is also identified relating to achieving construction resource efficiency of between ≤ 3.4 m³ and ≤ 3.2m³ waste generation per 100m² GIA floorspace; – Man 02 Lifecycle cost and service life planning aims to promote the business case for sustainable buildings and to deliver whole life value by encouraging the use of life cycle costing to improve design, specification, through-life maintenance and operation. All 4 available credits are targeted in relation to undertaking an elemental Life Cycle Costs (LCC) analysis, undertaking a component-level LCC options appraisal, and reporting the Proposed Scheme's capital costs; – Mat 01 Environmental impacts from construction products. Building LCA aims to reduce the burden on the environment from construction products by recognising and encouraging measures to optimise construction product consumption efficiency and the selection of products with a low environmental impact (including embodied carbon), over the life cycle of the building: A minimum 6 of 10 available credits are targeted in relation to undertaking a lifecycle analysis (LCA) and options appraisal for the building's superstructure, substructure, hard landscaping, and buildings services design options, and aligning these LCA and above LCC assessments. 2 potential additional credits are also identified in relation to appraising additional superstructure design options; and – Mat 02 Environmental impacts from construction product Environmental Product Declarations (EPDs) aims to encourage the availability of robust and comparable data on the impacts of construction products through the provision of EPDs. 1 of 1 available credits are targeted. • The retail space is targeting BREEAM 'Excellent' certification for which a minimum score of 70% is required together with various minimum requirements. The same BREEAM credits are targeted as those set out above for the office space that will mitigate construction-stage GHG emissions and contribute to the anticipated score of 74.03%. The single exception is that 5 of the 10 available Mat 01 credits are targeted; • The Whole Life Carbon Assessment of the proposed office and residential Blocks concludes that total embodied carbon emissions across RICS lifecycle modulese A1 – A5 (i.e. construction products and construction), B1 – B5 (i.e. in use), and C1 – C4 (i.e. end of

^e RICS (2024). Whole life carbon assessment for the built environment, 2nd edition, Version 3. Available at: https://www.rics.org/content/dam/ricsglobal/documents/standards/Whole_life_carbon_assessment_PS_Sept23.pdf. [Accessed 14/05/2025]

Technical topic / stage	Primary and tertiary mitigation The primary and tertiary mitigation measures presented below have been collated from Technical Chapters 6 – 11 of Volume 1 life), excluding sequestration, are estimated to be 946 kgCO₂e/m², significantly below the RIBA business as usual (BAU) target^f of 1,200 kgCO₂e/m² and slightly higher than the target set for the Proposed Scheme by the Applicant of 850 kgCO₂e/m². However this result includes a contingency in line with the latest RICS methodology, and when this contingency is excluded the whole life carbon emissions reduce to 782 kgCO₂e/m², below the project-specific target; • Additional targets set by the Applicant that will further mitigate construction stage GHG emissions include preparing a Circular Economy strategy for the development to minimise waste and maximise the value of resources by keeping products and materials in use for as long as possible.
Operation	• A 'fabric first' (or 'energy hierarchy') approach by which building fabric performance including thermal performance (u values), air permeability and thermal bridging is optimised as the first "be lean" stage to reduce energy demand and associated GHG emissions from the outset; • Efficient building services are proposed as the second "be clean" stage of the energy hierarchy to ensure that energy demand remaining after the first "be lean" stage is met efficiently. While there are no existing or planned district energy networks within a feasible vicinity of the Site that would enable a connection to the Proposed Scheme, the energy system will be designed to enable future connection to an off-site district heating network should such an opportunity presents itself; • The next "be green" stage of the energy hierarchy comprises the proposed use of Air Source Heat Pumps (ASHP) to provide space heating and hot water for the residential and amenity areas, with hot water to be provided by direct electric water heaters. Solar photovoltaic (PV) array will also be provided on available roofspace; • A carbon offset payment is proposed for remaining operational energy emissions following the above mitigation measures, as sought by Places for Everyone Policy JP-S2; and • Additional targets set by the Applicant that will further mitigate operational GHG emissions including achieving NABERS 5* where feasible for the office space to measure and rate the actual operational energy and identify areas for further savings and improvements .

^f RIBA (2021). 2030 Climate Challenge, Version 2. Available at: <https://www.architecture.com/-/media/files/climate-action/riba-2030-climate-challenge.pdf?srsId=AfmBOorKO-LspIsXPIp1HYFov-V6Jzj2u6HrXeDwVxIRgip7CGuvRA-z>. [Date accessed: 14/05/2025]

Ref.	Secondary Mitigation
	The secondary mitigation measures presented below have been collated from Technical Chapters 6 – 11 of Volume 1

Noise and vibration

Construction	Potential control mechanisms to be considered in addition to a CEMP (T1 – see below), including: • Addition to or modification of methodology / protocols / procedure within a CEMP; • A separate standalone method statement of working; and • A formal Section 61 Notice under the CoPA.
Construction	Review of construction programme for construction works activity close to sensitive receptors R9 and R27 as part of the CEMP to identify periods when a close level of observation may be required, by operatives or construction management personnel. The following actions will be considered during the construction stage works proposals development, which would assist to minimise the vibration levels assessed: • Whether the time of activity working can be adjusted for times when adjacent sensitive receptors are not occupied; • Investigate the ground conditions prior to finalising the piling technique selections; • If driven piling techniques are unavoidable for the formation of suitable foundations, localised activity specific vibration monitoring would be adopted at the closest working locations to the identified sensitive receptors (e.g. R9, R11 and any other receptor deemed appropriate) to advise on actual conditions, to provide a feedback mechanism, to allow real-time adjustment should a necessity arise. This can also be applied to any Proposed Scheme phasing for on-site occupied sensitive receptors (e.g. R26 and R27); and • Method statements / procedures would be developed prior to the start of the piling works, for construction operatives to follow. Potential control mechanisms to be considered in addition to a CEMP (T1 – see below), including: • Development of methodology / protocols / procedure within a CEMP; • A separate standalone method statement of working; and • A formal Section 61 Notice under the CoPA.

Ref.	Secondary Mitigation
The secondary mitigation measures presented below have been collated from Technical Chapters 6 – 11 of Volume 1	
Operation	The Proposed Scheme detailed design will continue to develop in line with the undertakings and a scheme of sound insulation design report will be submitted prior to occupation of Block A (and Block B) when all the necessary detailed design and construction forms will be known. This will be secured by way of a planning condition.
Townscape and visual	
Construction	-
Operation	A landscape management plan will be prepared and will be subject to a planning condition to ensure that the landscape proposals and public realm areas are installed and maintained throughout the lifetime of the Proposed Scheme; this document will form part of the detailed design stage. The contents of this would be: • Retained trees: Maintain existing trees to be healthy, free of disease, damaged or broken stems / branches and dead wood; • Proposed tree planting: To establish a stable and healthily growing tree with a well-shaped framework for future growth. Where necessary to pollard or coppice species to prevent collapse of the trees. Regular safety inspections and report on condition of trees by arboriculture advisor. Implementation programmes of recommended tree work to comply with British Standard 3998: 2010 'Tree Work – Recommendations'^g; • Proposed shrub planting: To ensure that good horticultural practice is employed to encourage long-term health and vitality of all shrubs. Planting to be thinned / re-spaced in order that they have sufficient room to develop. Review opportunities for introducing native shrubs and those with particular wildlife value into planted areas. Maintain a clean and safe environment. Ensure cultural techniques are employed which use a variety of mulches and organic fertilisers and which minimise the use of chemicals and peat wherever possible; • Hard landscape: To keep all areas of paving and footpaths and drainage systems across the Site free of litter, weeds, silt and other debris that will detract from the appearance of the Site and will help to retain functionality of the Site; and

^g British Standard 3998: 2010 'Tree Work – Recommendations'.

Ref.	Secondary Mitigation
	The secondary mitigation measures presented below have been collated from Technical Chapters 6 – 11 of Volume 1
	Fencing and furniture: To ensure all fences and furniture are tidy and safe to use. These features will be subject to regular inspections. The landscape management plan will be a starting point for an evolving document and will be reviewed on a regular basis.
Daylight, sunlight and overshadowing	
Construction	-
Operation	-
Wind microclimate	
Construction	-
Operation	-
Socio-economics and human health	
Construction	The implementation of a local labour agreement offers the potential to enhance the recruitment of construction labour from within the study area. Any agreement could require the appointed contractor(s) to work with local education and training centres, and industry bodies, to provide apprenticeships and training opportunities.
Operation	-
Climate change	
Construction	-
Operation	-

EIA Scoping Report

Mitigation / commitment	Primary and tertiary mitigation
	Primary and tertiary measures presented below have been collated from the EIA Scoping Report (Appendix 2.1 of Volume 2)
Construction Environmental Management Plan	A CEMP will be prepared by the appointed contractor in advance of commencing construction works. The document will provide detailed measures / controls to avoid and manage potential adverse effects on the environment during the construction stage. 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^h. • All construction activities will be in accordance with the Considerate Constructors Scheme. • The construction site will be kept tidy and presentable at street level with suitable hoardings in place. • Working hours will be 07:30 to 18:00 Monday to Friday and 08:00 to 14:00 on Saturdays. On Sundays and Bank Holidays noisy working will generally not be planned. On some occasions there are certain operations that may be required to proceed during these periods, for example tower crane erection and dismantling. These will be infrequent and will be agreed with key stakeholders (including MCC). The frequency of these will vary and respond to demand. Access to the Site will be permitted 30 minutes prior to the working day commencing with noise being kept to a minimum for the first half hour of each day. <u>Traffic management</u> • Construction logistics / traffic management to include: a planned route(s) for construction traffic to reduce the risk to road users; restricting deliveries to certain periods; ensuring the vehicles are well maintained; signage for entrances / exits; controlled entrance / exits; barrier fencing along internal route; 5mph speed restriction

^h 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 /
commitment

Primary and tertiary mitigation

Primary and tertiary measures presented below have been collated from the EIA Scoping Report (Appendix 2.1 of Volume 2)

applied; use of designated construction parking areas; and HGV drivers will be encouraged in the urban environment to be cognisant of their surroundings and vulnerable road users at all time.

- Construction vehicles will not be allowed to park off-site.
- Bridge Street and St. Mary's Parsonage will remain operational throughout the construction stage. However, there may be instances where these roads require temporary closure (i.e. for the delivery of large plant). This will be managed in conjunction with MCC and TfGM to limit road closures. These roads (and associated footways) will be protected from on-site activities so that any risks to human health are managed.
- Where possible, hoarding during the construction stage will not entirely cover the footways. However, if this is necessary then alternative safe walking routes will be provided. Clear advertising will also be provided for any routes that are closed and signposting will be provided for suitable alternative routes.

Air Quality

- Informed by the Institute of Air Quality Management (IAQM) Guidanceⁱ this would include prevention measures, such as screening stockpiles of materials, deployment of windbreak netting and dampening exposed soils as appropriate as well as setting out requirements for ongoing monitoring and liaison with the local community and MCC.
- Appropriate emission standards from EU Regulation 2016/1628^j will be incorporated to manage combustion emissions from NRMM during construction activities.

Contamination and pollution management

- Pre-demolition surveys will be undertaken for asbestos / Asbestos Containing Materials (ACMs) before the commencement of demolition works.

ⁱ IAQM (2024) Guidance on the assessment of dust from demolition and construction (v2.2).

^j Official Journal of the EU (2016) Regulation (EU) 2016/1628 of the European Parliament and of the Council. Available: <https://eur-lex.europa.eu/eli/reg/2016/1628/oj/eng>. [Accessed: 18/02/2025].

Mitigation / commitment	Primary and tertiary mitigation Primary and tertiary measures presented below have been collated from from the EIA Scoping Report (Appendix 2.1 of Volume 2)
	- Asbestos will be identified, removed, handled and disposed of in line with appropriate guidance and Regulations, including The Hazardous Waste (England and Wales) Regulations 2005^k, Control of Asbestos Regulations 2012^l and CIRIA C733^m. - Programmed removal of the identified asbestos materials will be undertaken at the outset of the enabling works under an Asbestos Management Plan. - If further unexpected contamination is encountered during the construction works following remediation, appropriate measures will be implemented. - To safeguard human health and the environment there will be: the use of Personal Protective Equipment (PPE), the preparation of method statements, toolbox talks, provision of on-site washing facilities, good housekeeping practices, provision of environmental awareness training. use of bunding, provision of emergency spill kits, use of wheel wash facilities, regular cleaning to remove loose sediments and prevent the build-up of dust and mud, use of sediment traps, use of impermeable materials to prevent ingress into the ground, washing down / equipment cleaning associated with concrete or cementing processes, screening stockpiles and provision of treatment facilities for runoff from construction areas. - Guidance will also be adhered to, such as CIRIA's Control of Water Pollution from Construction Sites (C532)ⁿ and Environmental good practice on-site (C811)^o as well as and Guidelines for Pollution Prevention

^k The Hazardous Waste (England and Wales) Regulations 2005 No. 894.

^l Control of Asbestos Regulations 2012 No. 632.

^m CIRIA (2014) C733 Asbestos in soil and made ground: a guide to understanding and managing risks.

ⁿ CIRIA (2001) Control of Water Pollution from Construction Sites. Guidance for consultants and contractors (C532).

^o CIRIA (2023) Environmental good practice on-site (5th edition) (C811).

Mitigation / commitment	Primary and tertiary mitigation Primary and tertiary measures presented below have been collated from the EIA Scoping Report (Appendix 2.1 of Volume 2)
	(GPP) 2: above ground oil storage tanks^p and GPP 5: Works and maintenance in or near water^q (albeit these have been withdrawn). • Adherence to the Confined Space Regulations^r. • The use of monitoring equipment, safe-entry procedures and use of Respiratory Protective Equipment (RPE) where required, will be utilised to mitigate the potential risk of exposure to hazardous gas and vapours and / or depleted oxygen levels. <u>Construction drainage and flood risk management</u> • Implementation of a temporary drainage strategy, using either existing, temporary or permanent drainage infrastructure and taking account of industry best practice and guidance (e.g. British Standard 8582:2013 – Code of practice for surface water management for development sites^s). • Measures are to include: storage of materials to avoid increasing flood risk off-site; provision of temporary weather protection for exposed flashings to prevent ingress of water; and protection of existing drainage pop-ups (where to be re-used). • Abstraction and discharge licences will be sought from the Environment Agency under the terms of The Water Abstraction and Impounding (Exemptions) Regulations⁸¹. • Appropriate controls / management measures will be implemented during construction and as part of the design, such as adherence to CIRIA's Groundwater control - design and practice^t. <u>Earthworks</u>

^p <https://www.netregs.org.uk/media/1475/gpp-2-pdf-jan-2018.pdf>.

^q <https://www.netregs.org.uk/media/1303/gpp-5-works-and-maintenance-in-or-near-water.pdf>.

^r Confined Space Regulations (1997) No. 1713.

^s British Standard Institution (2013) British Standard 8582:2013 – Code of practice for surface water management for development sites.

^t CIRIA (2016) Groundwater control - design and practice (C750).

Mitigation /
commitment

Primary and tertiary mitigation

Primary and tertiary measures presented below have been collated from from the EIA Scoping Report (Appendix 2.1 of Volume 2)

- Clean cover layers will be validated for chemical quality prior to re-use / use on-site.
- If unstable / compressible ground is identified, temporary works and / or ground improvement (e.g. shoring of excavations, the design of haul roads, piling mats, crane platforms, etc.) will be used.

Lighting management

- Construction lighting management measures are to include: security lighting required at the perimeter of the Site would be set at lighting levels that are designed to the correct standard for their purpose; the use of sufficient lighting units for the task in hand to avoid the need for tall, wide beam lighting units; the reduction of fixed lighting outside working hours, unless beneficial to provide consistent lighting for security / health and safety; the use of infrared CCTV systems for security; and ongoing monitoring and liaison with stakeholders.
- Lighting to be cognisant of ILP Guidance Notes for the Reduction of Obtrusive Light^u and Commission Internationale l'Eclairage (CIE) 126: Guidelines for Minimising Sky Glow^v.
- Appropriate aviation lighting will be used for tall plant (e.g. cranes) during construction.

Utilities

- Works to confirm the location of utilities will be undertaken before the commencement of activities in liaison with the relevant operators. Good practice working measures will be put in place in line with the Construction (Design and Management) Regulations 2015 and other health and safety regulations, such as the preparation of specific method statements and making workers aware of the location of utilities and their easements where works are undertaken in proximity to utilities.
- Relevant HSE guidance will be adhered to, including Avoiding danger from underground services^w.

Fire and site safety

^u ILP (2021) Guidance Note 1 for the reduction of obtrusive light 2021.

^v CIE (1997) 126: Guidelines for Minimising Sky Glow.

^w HSE (2014) Avoiding danger from underground services HSG47.

Mitigation / commitment	Primary and tertiary mitigation Primary and tertiary measures presented below have been collated from from the EIA Scoping Report (Appendix 2.1 of Volume 2)
	- Construction works will be undertaken in line with Fire Prevention on Construction Sites: Joint Code of Practice^x. - 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 2015. <u>UXO management</u> - Communication to all construction workers on UXO risks, safety training by a competent expert and the attendance of UXO supervisors during the groundworks (if appropriate) will be undertaken. <u>Waste and resource management</u> - Contaminated materials will be adequately characterised both chemically and physically in line with relevant guidance, such as Waste Classification: Guidance on the classification and assessment of waste^y. Hazardous materials generated in the construction stage will be managed within legal requirements (e.g. Control of Pollution (Special Wastes) Regulations 1980^z and The Dangerous Substances (Conveyance by Road in Road Tankers and Tank Containers) Regulations 1981^{aa}), ensuring appropriate storage, collection and disposal in line with sustainable management practices where possible.

^x RISC Authority and The Fire Protection Association (2022) Fire Prevention on Construction Sites: The Joint Code of Practice on the Protection from Fire of Construction Sites and Buildings Undergoing Renovation (10th Edition).

^y 156 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1021051/Waste_classification_technical_guidance_WM3.pdf. 157 <https://www.legislation.gov.uk/uksi/1980/1709/contents/made>. 158 <https://www.legislation.gov.uk/uksi/1981/1059/made>.

^z <https://www.legislation.gov.uk/uksi/1980/1709/contents/made>.

^{aa} <https://www.legislation.gov.uk/uksi/1981/1059/made>.

Mitigation /
commitment

Primary and tertiary mitigation

Primary and tertiary measures presented below have been collated from the EIA Scoping Report (Appendix 2.1 of Volume 2)

- Adherence to the waste provisions of the Environmental Protection Act 1990 and the Environmental Protection (Duty of Care) Regulations 1991^{bb} and The Waste (England and Wales) Regulations 2011^{cc}.
- Establishment of guidance on sustainable waste management practices to ensure the adoption of opportunities to reduce, reuse and recycle wastes, where possible, in line with the waste hierarchy. Aims, objectives and ongoing management responsibilities as well as containing targets for the reduction / diversion from landfill and reuse of waste are to be set out.
- Measures will include: segregation of waste materials; use of pre-fabricated materials for on-site assembly; and 'just in time' deliveries.
- The CEMP will detail measures to reduce resource use, including the use of off-site pre-fabrication where reasonably practical.

Biodiversity

- To avoid disturbance to nesting birds within the Site, any vegetation clearance is recommended to take place between September – February, outside of the peak nesting period. Any vegetation clearance that takes place between March – August should have a check for the presence of nesting birds completed no more than 48 hours prior to the vegetation being removed. Pre-clearance checks will be specifically required during the removal of vegetation along the riverbank and implementation of temporary construction platforms oversailing the River Irwell.
- Disturbance to otter will be controlled through reasonable avoidance measures such as a pre-construction walkover to confirm the status of otter on and adjacent to the Site, a toolbox talk, regular inspections and provision of escape routes within any excavations.

Arboriculture

^{bb} Environmental Protection (Duty of Care) Regulations 1991.

^{cc} The Waste (England and Wales) Regulations 2011 No. 988.

Mitigation / commitment	Primary and tertiary mitigation Primary and tertiary measures presented below have been collated from the EIA Scoping Report (Appendix 2.1 of Volume 2) - Protection of retained trees and associated root protection areas in accordance with British Standards^{dd}. <u>Overheating</u> - Provision of shaded areas, potable water supplies and suitable PPE.
Archaeological mitigation strategy	The presence or absence of archaeological remains requires verification through archaeological evaluation, prior to development and, pending the extent and significance of any surviving buried remains, further archaeological excavation may be required to mitigate the loss of buried remains during the construction programme. The exact scope of the archaeological evaluation will be set out within a Project Design and agreed with GMAAS. The evaluation will inform whether further mitigation in the form of archaeological excavation will be required to preserve archaeological remains by record.
Invasive species method statement	To be informed by DEFRA guidance^{ee} and would include eradication on-site completely before construction starts. This should be done by a licenced contractor. An exclusion zone will be established around any stands of giant hogweed, and the giant hogweed will be treated via herbicide application to individual plants. Further monitoring for 3 – 5 years will also be required to ensure no new plants establish.
Ground investigation	Intrusive ground investigations will determine the absence or presence, type and distribution of any forms of ground contamination and confirm the ground conditions. Ground investigations will be undertaken in advance of the commencement of the main construction activities and will be undertaken in line with relevant guidance, such as Land Contamination Risk Management^{ff}, British

^{dd} British Standards Institution (2012) British Standard 5837:2012 Trees in Relation to Design, Demolition and Construction to Construction – Recommendations.

^{ee} <https://www.gov.uk/guidance/invasive-non-native-alien-plant-species-rules-in-england-and-wales>.

^{ff} Environment Agency (2020) Land Contamination Risk Management.

Mitigation / commitment	Primary and tertiary mitigation Primary and tertiary measures presented below have been collated from the EIA Scoping Report (Appendix 2.1 of Volume 2) Standard 10175:2011 + A2:2017^{gg}, British Standard 5930:2015 + A1:2020^{hh} and BSEN1997: Part 2: 2007 Eurocode 7ⁱⁱ. Where relevant, in line with Land Contamination Risk Management, quantitative risk assessments will be required as part of the intrusive ground investigation(s) which will involve comparing soil contaminant concentrations against Generic Assessment Criteria and assessing Source-Pathway-Receptor Linkages.
Remediation strategy	In the event that contamination is identified, remedial measures would be implemented, detailed in a remediation strategy and will be approved by MCC. This would include the relevant combination of measures to achieve the required standards for the proposed land uses as defined by the site-specific risk assessment (e.g. use of clean capping layers and disposal, removal and / or processing of specific contamination hotspots, placement of geotechnically suitable materials, etc.). Any necessary remediation work would be undertaken during the enabling works prior to the commencement of the main construction works.
Verification report	Records of completion will be included in a verification report and this will ensure that the required thresholds / criteria have been achieved through the implementation of the remediation strategy.
Ground gas strategy	All new blocks will be designed in line with British Standard 8485:2015+A1:2019^{jj} and CIRIA's Assessing risks posed by hazardous ground gases to buildings^{kk} and incorporate mitigation measures (such as gas membranes) depending on the findings of the ground gas monitoring / assessment as part of the ground investigation works.

^{gg} British Standard 10175:2011+A2:2017 Investigation of Potentially Contaminated Sites: Code of Practice.

^{hh} British Standard 5930:2015 + A1:2020 Code of Practice for Site Investigations.

ⁱⁱ Eurocode 7: Geotechnical Design (report no. BSEN1997).

^{jj} British Standard 8485:2015+A1:2019 – Code of Practice for the Design of Protective Measures for Methane and Carbon Dioxide Ground Gases for New Buildings.

^{kk} CIRIA (2007) Assessing risks posed by hazardous ground gases to buildings (C665).

Mitigation / commitment	Primary and tertiary mitigation Primary and tertiary measures presented below have been collated from from the EIA Scoping Report (Appendix 2.1 of Volume 2)
Foundation design	All earthworks and foundation design will be in accordance with relevant standards and guidance, including but not limited to CIRIA Report C572: Treated ground engineering properties and performance ^{ll} , British Research Establishment document FB75: Building on Fill - Geotechnical Aspects ^{mm} , British Standard 6031:2009: Code of Practice for Earthworks ⁿⁿ and Building Regulations Approved Document A - Structure ^{oo} .
Piling risk assessment	Where required, a piling risk assessment will be completed to understand the risk of piling activities associated with impacted soils and receptors. The method of construction will be carefully selected to ensure that the migration of contamination into sensitive resources is kept to a minimum and will be undertaken in line with guidance, such as the Environment Agency's Piling and penetrative ground improvement methods on land affected by contamination: guidance on pollution prevention^{pp}. This will be led by the appointed contractor.
Energy strategy	The backup generator / energy plant will be located and operated in line with best practice.
Odour management system	Odour emissions from any proposed Class E uses within the Proposed Scheme will be mitigated through the implementation of an odour management system, which would be enforced through a planning condition, linked to the detailed design of the kitchens proposed, when this is available. The odour assessment will be completed in line with EMAQ 2018 Addendum to the 2005 Defra Guidance on the 'Control of Odour and Noise from Commercial Kitchen Exhaust Systems'^{qq}.

^{ll} J A Charles and K S Watts (2002). Treated ground - engineering properties and performance (C572)

^{mm} BRE (2015) FB75 Building on fill: geotechnical aspects (3rd edition).

ⁿⁿ British Standard 6031:2009 Code of practice for earthworks.

^{oo} HM Government (2013) Approved Document A – Structure.

^{pp} Environment Agency (2001) Piling and penetrative ground improvement methods on land affected by contamination: Guidance on pollution prevention.

^{qq} EMAQ, Ricardo-AEA, (2018). Addendum to the 2005 Defra Guidance, Control of Odour and Noise from Commercial Kitchen Exhaust Systems.

Mitigation / commitment	Primary and tertiary mitigation Primary and tertiary measures presented below have been collated from from the EIA Scoping Report (Appendix 2.1 of Volume 2)
Internal air quality pollutant concentrations strategy	Suitable mitigation will be recommended in the form of filtration to ensure the control of pollutant concentrations within the Proposed Scheme.
Operational lighting strategy	The lighting philosophy will be to achieve a good level of maintained illuminance across the Proposed Scheme, minimising inconsistently lit areas and creating a safe environment whilst avoiding light pollution and light spill to surrounding areas. External lighting will be designed and installed in line with relevant standards and guidance, including British Standard 5489-1:2020 Design of road lighting - Lighting of roads and public amenity areas. Code of practice^{rr}, CIBSE LG6: The exterior environment^{ss}, ILP Guidance Notes for the Reduction of Obtrusive Light, Commission Internationale l'Eclairage (CIE) 126: Guidelines for Minimising Sky Glow^{tt} and the Bat Conservation Trust Bats and Artificial Lighting at Night^{uu}. Features such as integrated fittings to contain light spill, use of hard landscaping features to block light and create lower light levels in retained and adjacent habitats of value to bats. Appropriate permanent aviation / aircraft warning lighting will be installed.
Operational fire strategy	The blocks will be designed with appropriate fire prevention / control measures (e.g. fire doors, extinguishers, etc.) and all external facades and materials will meet the necessary fire resistance standards set out within relevant legislation (e.g. the Building Regulations). Fire management measures, including smoke detectors, sprinklers, etc.) will also be installed within the Proposed Scheme.

^{rr} British Standard 5489-1:2020 Design of road lighting - Lighting of roads and public amenity areas. Code of practice.

^{ss} CIBSE (2016) Lighting Guide (LG) 6: The exterior environment.

^{tt} CIE (1997) 126: Guidelines for Minimising Sky Glow.

^{uu} Bat Conservation Trust (2023) Bats and Artificial Lighting at Night.

Mitigation / commitment	Primary and tertiary mitigation Primary and tertiary measures presented below have been collated from the EIA Scoping Report (Appendix 2.1 of Volume 2)
Operational access strategy	The Proposed Scheme has been designed to limit the use of cars, by prioritising pedestrian and cycle access / priority. The new accesses and vehicle circulation through the Proposed Scheme will be designed in accordance with relevant guidance / standards.
Travel plan	A full Travel Plan will be developed and implemented, with measures to encourage the use of active travel and public transport and discourage car travel, particularly single-occupancy trips.
Operational waste management strategy	The Proposed Scheme will include sufficient areas for the collection, storage and disposal of waste, which will include facilities for the separation of waste for recycling purposes.
Surface water drainage strategy	Implementation of a surface water drainage network which will be designed in line with local and national policy and agreement with relevant stakeholders. The features are anticipated to include rainwater harvesting, green / brown / blue roofs, rain gardens, permeable surface, swales and / or storage tanks. The surface water drainage system will comprise a range of sustainable drainage features, which will discharge into the existing sewer system (at a restricted rate) or into the River Irwell at an unrestricted rate (subject to further liaison with stakeholders). Appropriate water treatment will be inherent in the drainage design through the incorporation of SuDS features and pollution prevention measures (e.g. interceptors), in line with guidance, such as Pollution Prevention Guidelines 3: Use and design of oil separators in surface water drainage systems^w (albeit this has been withdrawn). The Proposed Scheme will include an appropriate climate change allowance.
Operational flood risk strategy	No built form will be delivered within the areas at higher flood risk in the northern part of the Site.

^w <https://www.netregs.org.uk/media/1671/ppg-3.pdf>.

Mitigation / commitment	Primary and tertiary mitigation
	Primary and tertiary measures presented below have been collated from from the EIA Scoping Report (Appendix 2.1 of Volume 2)
	Resilience measures, such as the setting of suitable building levels to avoid water ingress and directing overland flows away from buildings to designated areas where some ponding may occur, will be incorporated within the Proposed Scheme.
Water efficiency measures	Water efficiency measures will also be incorporated into the Proposed Scheme in accordance with Building Regulations Part G ^{ww} . This will include dual flush WC and appropriate flow rates within taps, showers, etc
Landscaping and public realm / amenity space strategy	Landscaping and public realm will include scrub and tree planting to provide a suitable nesting habitat. These areas will also be resilient to climate change through the use of climate tolerant species.
Overheating assessment	An overheating assessment will be carried out using recognised methodology (such as CIBSE TM52:2013 ^{xx} and TM59:2017 ^{yy}) and implementing measures to ensure suitable internal summertime conditions for occupants (e.g. using appropriate ventilation and glazing specification). The new dwellings will also be required to comply with Building Regulations Part O 'Overheating' ^{zz} .

^{ww} Ministry of Housing, Communities and Local Government (2024) Building Regulations Sanitation, hot water safety and water efficiency: Approved Document G.

^{xx} <https://www.cibse.org/knowledge-research/knowledge-portal/tm52-the-limits-of-thermal-comfort-avoiding-overheating-in-european-buildings>.

^{yy} <https://www.cibse.org/knowledge-research/knowledge-portal/technical-memorandum-59-design-methodology-for-the-assessment-of-overheating-risk-in-homes>.

^{zz} <https://www.gov.uk/government/publications/overheating-approved-document-o>.

Key assumptions / commitments set out in **Chapter 4: Development Specification of Volume 1** are as follows:

- Construction traffic will travel to / from the Site via the A34 Bridge Street, Chapel Road and the A6 or the Inner Ring Road (A6042);
- The maximum number of movements is assumed to be less than 100 vehicle movements and 25 HGV movements per day across the construction stage;
- No off-site parking along the roads around the Site will be permitted unless otherwise agreed. Personnel will be requested to use formal car parks if no parking is available within the Site;
- No blasting will be undertaken during demolition works;
- All areas of the Site will be subject to clearance works, with the exception of the existing trees subject to TPOs (including their Root Protection Zones (RPZs)), areas along the riverbank, the A34 Bridge Street and St. Mary's Parsonage. All other vegetation / features within the Site will be removed;
- The foundation solution is not yet known but is assumed to include piled and non-piled foundations;
- Operational traffic flows are anticipated to be limited (i.e. < 100 Light Duty Vehicles and / or 25 Heavy Duty Vehicles); and
- The Proposed Scheme seeks flexible operating hours for the different uses proposed. The operating hours for the proposed land uses are outlined below.

Use classes and operating hours

Use class	Operating hours
E (a, b, c)	07:00 – 24:00 daily
E (g)	24 hours / 7 days a week
C3	24 hours / 7 days a week

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