



Cambridge Halls, Manchester

Environmental Impact Assessment (EIA)

Scoping Report

Applicant

Unite Students and Manchester Metropolitan University

Our reference

UNIM3028

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Turley

Contents

Figures and Appendices	3
1. Introduction	4
2. Approach to EIA	8
3. Site Context	17
4. High Level Development Specification	18
5. Technical Topics which are Not Significant	22
6. Townscape and Visual	52
7. Built Heritage	62
8. Wind	72
9. Daylight, Sunlight and Overshadowing	79
10. Climate Change	85
11. Socio-Economics and Human Health	94
12. Air Quality	103
13. Noise and Vibration	109
14. Approach to the Assessment of Cumulative Effects	114
15. Summary of EIA Scoping Report	130

Figures and Appendices

Figure 1.1: EIA Boundary

Figure 5.1: Historical Ground Investigation

Figure 6.1: Designations Plan

Figure 6.2: Extract from the Strategic Level City-Wide Urban Characterisation for Core Strategy (November 2010)

Figure 6.3: Townscape Character Area Plan

Figure 6.4: Zone of Theoretical Visibility

Figure 6.5: Representative Viewpoint Location Plan

Figure 6.6: Representative Viewpoint Location Plan & Zone of Theoretical Visibility

Figure 7.1: Heritage Asset Plan

Figure 8.1: Annual wind rose obtained from the wind data recorded at Manchester Airport (10m height) during the years 1991 to 2015

Figure 8.2: Probability of exceedance of wind speeds from Manchester Airport obtained from the wind data recorded during the years 1991 to 2015

Figure 8.3: Aerial visualisation of the existing site (yellow) and existing surroundings, looking from the south-west (captured in Google maps 2024)

Figure 8.4: View of the existing site and existing surroundings, with sketches showing the locations and directions of expected accelerated winds.

Figure 9.1: Location of Sensitive Receptors

Figure 14.1: Cumulative Project Plan

Appendix 2.1: Preliminary Environmental Management Plan

Appendix 5.1: Archaeological Desk-Based Assessment

Appendix 5.2: Biodiversity Figures

Appendix 6.1: Townscape and Visual Impact Assessment (for Environmental Impact Assessment / Environmental Statement)

Appendix 7.1: Built Heritage Baseline Assessment

Appendix 12.1: Air Quality Monitoring

1. Introduction

Overview

- 1.1 Unite Students and Manchester Metropolitan University (the 'Applicant') is preparing an application for full planning permission (the 'Application') for the demolition of existing student accommodation on-site (approximately 800 beds) and the construction of an up to 30 storey development comprising up to 2,600 Purpose Built Student Accommodation (PBSA) units and supporting uses (the 'Proposed Scheme'). The Application will be submitted to Manchester City Council (MCC) as the local planning authority (LPA).
- 1.2 The Applicant has instructed Turley to lead, manage and control the Environmental Impact Assessment (EIA) process for this project in line with the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended)¹ (the 'EIA Regulations').
- 1.3 The project team have developed a description of the Proposed Scheme (a 'High Level Development Specification'), which is outlined in **Chapter 4**. Whilst the Proposed Scheme continues to be refined and the development principles agreed upon, **Chapter 4** aims to provide factual and sufficient information to inform the EIA Scoping process and the preparation of this EIA Scoping Report.
- 1.4 In line with the above, the area to be considered for the purpose of the EIA (the 'EIA Boundary') is approximately 1.29 hectares (ha) and is shown in **Figure 1.1**. The EIA Boundary is considered to represent the maximum extent of all temporary and permanent works that may be required as part of the Proposed Scheme.

Request for a Scoping Opinion

- 1.5 To inform the EIA process, in accordance with Regulation 15 of the EIA Regulations, Turley requests a Scoping Opinion from MCC informed by this report.
- 1.6 In line with Regulation 15(2) of the EIA Regulations, this report contains the following:
 - A plan sufficient to identify the land (**Figure 1.1**);
 - A description of the Proposed Scheme, including its nature, purpose, location, and technical capacity (**Chapter 4**);
 - An explanation of the likely significant effects of the development on the environment (**Technical Chapters 6 – 13**); and
 - Such other information or representations as the person making the request may wish to provide or make.
- 1.7 This report has been prepared in line with common EIA practice, whereby the appointed project team, based on an understanding of the EIA Boundary and the preliminary understanding of the Proposed Scheme (as set out in **Chapter 4**), have:

¹ The Town and Country Planning (EIA) Regulations 2017 No. 571 (as amended).

- Established the existing technical baseline, either through desk-top studies/reviews, surveys, and evaluation of available technical data;
- Identified the topics and effects which are unlikely to be significant, due to the absence of a receptor (due to the location of the EIA Boundary) or source of an effect due to the nature of the Proposed Scheme (as defined in **Chapter 4**), or through the commitment to mitigation;
- Identified the effects which are likely to be significant and the sensitive receptors that will be assessed in the ES; and
- Established the methodology for assessing the effects in the ES which are likely to be significant.

1.8 The above is documented in **Chapter 5** and **Technical Chapters 6 – 13**.

1.9 The Scoping Opinion is sought on the breadth of the technical topics and associated effects to be considered within the EIA and reported in the ES, as well as the scope and methodology for assessment.

1.10 In accordance with Regulation 15(4) of the EIA Regulations, it is anticipated that the statutory timescales will be met, and that Turley will be in receipt of a Scoping Opinion no later than five weeks from the date of receipt of this request. Any deviation from this will be subject to a request from MCC and subsequent agreement by the Applicant

1.11 Furthermore, in line with Regulations 28, it is anticipated that MCC will make available this report and their corresponding EIA Scoping Opinion, with accompanying consultee comments where applicable, for public inspection, either through MCC planning portal website or by other means.

Definition of EIA

1.12 The term 'EIA' has the meaning given by Regulation 4 of the EIA Regulations, as '*a process consisting of -*

(a) the preparation of an environmental statement;

(b) any consultation, public and notification required by, or by virtue of, these Regulations or any other enactment in respect of EIA development; and

(c) the steps required under regulation 26' (consideration of whether planning permission or subsequent consent should be granted)'.

1.13 Under Regulation 4, Paragraph 2 an EIA must '*identify, describe, and assess in an appropriate manner, in light of each individual case, the direct and indirect significant effects of the proposed development on the following factors -*

(a) population and human health

(b) biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC(1) and Directive 2009/147/EC(2);

(c) land, soil, water, air and climate;

(d) material assets, cultural heritage and the landscape; and

(e) the interaction between the factors referred to in sub-paragraphs (a) to (d)'.

- 1.14 EIA is a procedure that must be followed for certain types of projects before 'development consent' (i.e., planning permission) can be given. The procedure is a means of drawing together, in a systematic way, an assessment of a project's likely significant environmental effects. This helps to ensure that the importance of the predicted effects and the scope for reducing or mitigating them are properly understood by the public and the relevant Local Planning Authority (in this case, MCC) before it makes its decision.
- 1.15 The aim of EIA, as defined by national Planning Practice Guidance (PPG), is to '*protect the environment by ensuring that a local planning authority when deciding to grant planning permission for a project, which is likely to have significant effects on the environment, does so in the full knowledge of the likely significant effects, and takes this into account in the decision making process....*' and '*..also to ensure that the public are given early and effective opportunities to participate in the decision making procedures*'².

Requirement for EIA

- 1.16 The need for an EIA is recognised as the Proposed Scheme meets the thresholds and criteria within *Schedule 2: 10(b)* as it is above the threshold of 150 dwellings.
- 1.17 Whilst the applicable thresholds are met, this does not determine the requirement for EIA, but requires a subsequent stage to determine "*...likely significant effects on the environment by virtue of factors such as its nature, size or location*".
- 1.18 At this stage, a number of likely significant effects have been identified. Therefore, an EIA will be undertaken, the outputs of which will be reported in an Environmental Statement (ES). The EIA is being used as a tool to identify and manage the environmental impacts and where possible avoid, reduce or offset them as part of the design process (see further details in **Chapter 2**).

Stakeholder Engagement

- 1.19 Consultation is an important part of the EIA process. It is the responsibility of MCC to undertake the appropriate level of consultation, including the identification of relevant and applicable statutory and non-statutory consultees, required to inform their Scoping Opinion.
- 1.20 It is anticipated that MCC will consult with the following stakeholders during the preparation of their Scoping Opinion:
- MCC (internal technical departments);

² Department for Levelling Up, Housing & Communities (DLUHC) and Ministry of Housing, Communities & Local Government (MHCLG), PPG, Paragraph 002 Reference ID: 4-002-20140306 [Online].

- Lead Local Flood Authority;
- Environment Agency;
- Natural England;
- National Highways;
- Historic England; and
- United Utilities.

2. Approach to EIA

Objectives

- 2.1 This report supports a formal request for a Scoping Opinion from MCC as to the scope and methodology for assessment to be adopted in the EIA and reported in the ES. It aims to ensure that there is a clear and agreed scope for the EIA, including the relevant baseline studies, that will be required to ensure a robust assessment of likely significant effects.
- 2.2 The Scoping Opinion is sought on the technical breadth of the technical topics considered within the EIA and the specific effects within each of these technical topics (**Technical Chapters 6 – 13**).
- 2.3 The Institute of Environmental Management and Assessment (IEMA) has issued guidance on the interaction of design and EIA as part of 'Shaping Quality Development'³ and 'Delivering Quality Development'⁴. The principles of these documents have been adopted for the EIA.

Iterative Approach to Scoping

- 2.4 Whilst this report seeks to establish the overall framework for the EIA in relation to the technical topics and associated likely significant effects that will be subject to detailed assessment, iterative 're-scoping' will continue as the design and strategy are refined, plans and principles are developed, and additional technical work is completed. Whilst the EIA will be based on the EIA Scoping Opinion (as required by Regulation 18, (4), (a)), it will take account of the continued understanding of environmental effects and development of primary and tertiary mitigation. This iterative 're-scoping' process will continue up until the point when the assessments within the ES are in their first draft, in advance of submission.
- 2.5 Any deviation between the scope of effects considered within this report and the ES will be clearly communicated in the ES. This is in accordance with the PPG⁵, which states that *'...where it becomes evident during the assessment process...that a particular environmental factor is absent or unlikely to be significantly affected by a proposed development, there should be no need for further assessment of that factor even though it was identified in the scoping process...'*
- 2.6 It is requested that such an approach is clearly endorsed within the Scoping Opinion issued by MCC.

Approach to the Consideration of Alternatives

- 2.7 Schedule 4, Paragraph 2 of the EIA Regulations states that an ES should include:

"a description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the

³ IEMA (2015) EIA Guide to: Shaping Quality Development.

⁴ IEMA (2016) EIA Guide to: Delivering Quality Development.

⁵ DLUHC and MHCLG, PPG, Paragraph: 038 Reference ID: 4-038-20170728 [Online].

proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects”.

- 2.8 The PPG⁶ states that where “...*alternative approaches to development have been considered, the Environmental Statement should include a description of the reasonable alternatives studied which are relevant to the proposed development and its specific characteristics and provide an indication of the main reasons for the choice made, including a comparison of the environmental effects*”.
- 2.9 The EIA Regulations and PPG do not require an Applicant to consider alternatives but instead where reasonable alternatives have been considered by the Applicant, these should be described and an indication of the main reasons for selecting the chosen option, including a comparison of the environment effects, should be provided.
- 2.10 The EIA Regulations and the PPG do not identify a specific methodology for the consideration of reasonable alternatives nor any associated criteria. Therefore, the methodology to be adopted will be based on professional experience of similar projects and an understanding of the Proposed Scheme and its characteristics as well as a focus on the delivery of a proportionate report, in line with PPG.
- 2.11 The consideration of alternatives has followed a two-step approach, with Step 1 completed as part of this report:
- **Step 1:** Consideration of ‘factors’ that constitute alternatives based on the EIA Regulations (i.e., alternative sites, alternative designs, alternative technologies and the ‘do nothing’ scenario) and justification / discussion of their inclusion / exclusion from further reporting; and
 - **Step 2:** Qualitative appraisal of the ‘factors’ brought forward from Step 1 and, where appropriate, a comparison of the environmental effects.

Step 1 – Consideration of Factors

- 2.12 The relevant factors have been considered to determine the need for further reporting:
- **Alternative sites** – Alternative sites have not been considered by the Applicant as the EIA Boundary is under the Applicant’s control and already has an existing outdated PBSA on-Site.
 - **Alternative designs** – The design of the Proposed Scheme will evolve in response to stakeholder engagement, technical studies, and environmental constraints and opportunities (where present in an urban context). Therefore, ‘Alternative designs’ will be taken forward to Step 2.
 - **Alternative technologies** – Whilst alternative technologies are available in terms of the construction of the Proposed Scheme these are largely dictated by ‘build-ability’ and cost exercises rather than environmental-focused considerations. Furthermore, the Proposed Scheme is PBSA, and given this alternative ‘technologies’ are not considered to be applicable as they would be for other types of development (i.e. industrial

⁶ DLUHC and MHCLG, PPG, Paragraph 041 Reference ID: 4-041-20170728 [Online].

processes or energy generation). As a result of these factors, Alternative technologies will not be taken forward to Step 2.

- **‘Do Nothing’ Scenario** – Schedule 4, Paragraph 3 of the EIA Regulations requires an ES to include a description of the relevant aspects of the current baseline environment which are likely to evolve without the implementation of development, subject to the availability of environmental information and scientific knowledge. The assessments of environmental effects presented in the ES⁷ will include the determination of the EIA Boundary’s ‘Future Baseline’, being the likely condition of the EIA Boundary in the absence of the Proposed Scheme or other development. As such, the ‘Do Nothing’ Scenario will be taken forward to Step 2.

2.13 As set out above, alternative designs and the ‘Do Nothing’ scenario will be taken forward from Step 1 into Step 2 and reported in the ES.

Study Boundaries for Data Collection

- 2.14 The EIA Boundary, upon which baseline data has been collected is defined in **Figure 1.1**. As noted in **Chapter 1**, this is considered to be the maximum extent of all permanent and temporary works associated with the components of the Proposed Scheme (see **Chapter 4**).
- 2.15 Where required, technical specific study areas (informed by relevant best practice and guidance) will be based upon the EIA Boundary (i.e. radius of searches will be from the EIA Boundary).

Assessment Against a Consistent Baseline Environment

2.16 Schedule 4, Paragraph 3 states that an ES should include:

“A description of the relevant aspects of the current state of the environment (baseline scenario)...”

- 2.17 Likely significant effects as a result of the Proposed Scheme will be described in the ES in relation to the deviation from the baseline environment within the EIA Boundary and / or relevant technical study areas.
- 2.18 For most technical topics and associated effects, the baseline environment will comprise the existing environmental characteristics and conditions based on surveys undertaken and information / data available at the time of the technical assessments. Deviation from this approach is noted under ‘Assessment Scenarios’ below.
- 2.19 The data used to inform the baseline conditions for the technical assessments reported in the ES (for those technical topics ‘scoped in’, see **Technical Chapters 6 – 13** for more details) will vary depending upon the timing of the survey or the date when data sources will have been accessed. It is anticipated that the baseline conditions will largely be based on data accessed or surveys / studies completed in 2024. Where relevant and robust, other data obtained from third parties may be older than 2024, though may still be appropriate and

⁷ It is not deemed necessary to consider the future baseline of environmental topics scoped out of the ES given that the Proposed Scheme is not expected to generate likely significant effects in relation to these topics.

relevant to the baseline scenario if there have been no notable changes or is the latest available information.

- 2.20 A consolidated list of baseline data sources will be provided as part of the ES. The origin of all data, the dates of surveys and the dates when data sources have been accessed will be clearly outlined alongside any limitations and assumptions.

Consideration of Future Baseline

- 2.21 Schedule 4, Paragraph 3 states that an ES should include:
- 2.22 *“...an outline of the likely evolution thereof without implementation of the development as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge.”*
- 2.23 As required by the EIA Regulations, the ES will report the future baseline scenario. This will consider potential changes to the EIA Boundary and study area assuming no further development and the continuation of the existing management regime.

Identification of Sensitive Receptors

- 2.24 Schedule 4, Paragraph 4 states that an ES should include:
- “A description of the factors specified in regulation 4(2) likely to be significantly affected by the development: population, human health, biodiversity (for example fauna and flora), land (for example land take), soil (for example organic matter, erosion, compaction, sealing), water (for example hydromorphological changes, quantity and quality), air, climate (for example greenhouse gas emissions, impacts relevant to adaptation), material assets, cultural heritage, including architectural and archaeological aspects, and landscape.”*
- 2.25 Informed by baseline information and data, a series of receptors or receptor groups are identified, which are subject to likely significant effects arising from a project. These receptors are then subject to detailed assessment within the EIA.
- 2.26 Details of the receptors which are considered likely to be affected at this stage are set out in **Technical Chapters 6 – 13**.

Defining Mitigation and how this will be Controlled

- 2.27 Schedule 4, Part 7 of the EIA Regulations states that an ES should include:
- ‘a description of the measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment and, where appropriate, of any proposed monitoring arrangements (for example the preparation of a post-project analysis). That description should explain the extent, to which significant adverse effects on the environment are avoided, prevented, reduced or offset, and should cover both the construction and operational phases’.*
- 2.28 Through the EIA process different types of mitigation have been / will be identified and developed and these are defined as:

- **Primary mitigation** – modifications to the location or design of the Proposed Scheme made during the pre-application phase that are an inherent part of the project;
 - **Secondary mitigation** – actions that will require further activity in order to achieve the anticipated outcome and secured by planning condition / and or obligation; and
 - **Tertiary mitigation** – 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 legislative requirements or actions that are considered to be standard practices used to manage commonly occurring environmental effects.
- 2.29 The assessment of the effects of the Proposed Scheme within the ES will be based on the information contained within a development specification, which will include primary and tertiary mitigation. Examples of primary mitigation include the surface water drainage strategy. Examples of tertiary mitigation include the adoption of best practice measures that can be controlled via a Construction Environmental Management Plan (CEMP), or measures required by legislative requirements (e.g., the Construction (Design and Management) Regulations 2015⁸)).
- 2.30 Primary and tertiary mitigation known at this stage is set out in the Preliminary Environmental Management Plan (EMP) provided as **Appendix 2.1**.
- 2.31 Within the ES, following the conclusion of the likely significant effects based on the Proposed Scheme (inclusive of primary and tertiary mitigation), any further mitigation (secondary mitigation) to reduce an adverse effect or enhance a beneficial one will be identified.
- 2.32 Secondary or tertiary mitigation measures are only considered appropriate if there is a high level of confidence in their mechanism for implementation (by the Applicant or third party).
- 2.33 The ES will be supported by a EMP which will detail all mitigation identified within the EIA process (including EIA Scoping) and will form Volume 3 of the ES (see 'Format of the ES'). This document will define all the environmental requirements of the Proposed Scheme to ensure that the impacts concluded through the EIA process can be relied upon. The EMP can be extracted by MCC to support the preparation of appropriate planning conditions / obligations attached to any planning permission, where necessary.

Consideration of Off-site Mitigation

- 2.34 Off-site improvements / mitigation, if required, will be considered as 'secondary mitigation' and appropriately considered within the assessment of residual effects within the ES. It is considered appropriate that secondary mitigation does not need to be within the EIA Boundary as any impact will be assessed and controlled as part of a separate approval process for such works, which will be subject to its own protocols to understand any environmental issues.
- 2.35 Where appropriate, the EIA will consider such works as far as reasonably possible to identify any potential secondary effects and report these within the ES. The level of assessment will be based on the information available on the form, extent, and scale of such works.

⁸ Construction (Design and Management) Regulations 2015 No. 51.

Information to Inform the Assessments within the ES

- 2.36 The technical assessments reported in the ES will be based on a series of detailed plans and overarching description of the Proposed Scheme, captured as part of the 'Development Specification' to be provided as part of the ES. The Development Specification will provide sufficient information to meet the requirements of the EIA Regulations and to inform the technical assessments undertaken as part of the EIA and reported in the ES.

Assessment Scenarios

- 2.37 The EIA will assess the likely effects arising from the Proposed Scheme, taking account of demolition, site preparation / enabling works, earthworks, remedial works and construction (collectively referred to as 'construction') and operational stages.
- 2.38 The following scenarios will be assessed where relevant to each technical topic (and likely significant effects):
- Peak construction – this will vary across technical topics and will not be attributed to a specific year, rather it will be determined at what point the worst-case effect could occur. This will be clearly defined within the technical assessments reported in the ES; and
 - Operation – this will consider environmental effects associated with the full operation of the Proposed Scheme, once completed.
- 2.39 All scenarios will be considered against the existing baseline conditions as defined above (see 'Assessment Against a Consistent Baseline Environment') and considering relevant guidance.

Approach to Defining Level of Effect and Significance

- 2.40 The method for assessment of effects (i.e. assessment criteria) will vary somewhat across technical topics, owing to the presence of specific technical guidance prepared in isolation but the assessment of likely significant effects (and specifically the conclusions) will be based on a singular common approach.
- 2.41 A stepped approach will be adopted to define effects for the construction and / or operational stages of the Proposed Scheme, as outlined below. The steps comprise the following, which are discussed further below:
- Step 1: Define environmental sensitivity;
 - Step 2: Define magnitude of change;
 - Step 3: Define level of effect; and
 - Step 4: Conclude on significance.
- 2.42 The method for assessing the level of effect varies between technical topics but in principle will be based on:

- **The environmental sensitivity (or value, importance, etc.) of a receptor** – including aspects such as adaptability, tolerance to change or recoverability from a change; and
- **The magnitude of change (or impact) from the baseline conditions** – including aspects such as probability / likelihood of occurrence, geographical extent, complexity, duration, frequency and reversibility (i.e. temporary or permanent).

- 2.43 Sensitivity (or value, importance, etc.) will be assessed on a scale of high, medium, low and negligible and the magnitude of change (or impact) will be assessed on a scale of large, medium, small and negligible.
- 2.44 Where relevant, other factors such as feedback from stakeholders, relevant legislation, international / national / regional / local standards and guidance and the inter-relationship between effects will also be considered.
- 2.45 The interpretation and use of the above will be set out within the assessment methodology of each technical topic within the ES.
- 2.46 The assignment of the level of effect will be based on professional judgement with the support of the matrix below (**Table 2.1**), which is seen as a tool to assist with the process. Whilst the matrix within **Table 2.1** provides ranges, this is to guide the competent expert and a definitive level of effect will be provided, where possible, for each effect.

Table 2.1: Matrix to support determining the level of effect

Magnitude of change (or impact)	Sensitivity (or value, importance, etc.)				
		High	Medium	Low	Negligible
	Large	Major	Moderate to Major	Minor to Moderate	Negligible
	Medium	Moderate to Major	Moderate	Minor	Negligible
	Small	Minor to Moderate	Minor	Negligible to Minor	Negligible
	Negligible	Negligible	Negligible	Negligible	Negligible

- 2.47 The terms set out in **Table 2.1** used to define the level of effects identified are described as follows and these can be 'beneficial' or 'adverse':
- **Major effect** – where the Proposed Scheme is likely to cause a considerable change from the baseline conditions and the receptor has limited adaptability, tolerance or recoverability or is of the highest sensitivity;
 - **Moderate effect** – where the Proposed Scheme is likely to cause either a considerable change from the baseline conditions at a receptor that has a degree of adaptability, tolerance or recoverability or a less than considerable change at a receptor that has limited adaptability, tolerance or recoverability;

- **Minor effect** – where the Proposed Scheme is likely to cause a small, but noticeable change from the baseline conditions on a receptor that has limited adaptability, tolerance or recoverability or is of the highest sensitivity or a considerable change from the baseline conditions at a receptor which can adapt, is tolerant of the change and / or can recover from the change; and
 - **Negligible** – where the Proposed Scheme is unlikely to cause a noticeable change at a receptor, despite its level of sensitivity or there is a considerable change at a receptor that is not considered sensitive to a change.
- 2.48 For some technical topics, relevant guidance or the nature of the effect requires that differing criteria or scales for determining the level of effect be used. For consistency within the ES, the final ‘level of effect’ will be reported using the terminology and conclusions set out above. This enables the conclusions of assessments across all technical topics to be understood for the decision-making process, along with allowing robust analysis and appraisal as part of the assessment of cumulative effects.
- 2.49 For each effect, a binary judgement will be made as to whether the effect is ‘Significant’ or ‘Not Significant’. This determination will be based on professional judgement and / or relevant guidance and standards, where applicable. Significance will only be concluded for residual effects (i.e. following the identification of secondary mitigation or enhancement).
- 2.50 Effects will also be described in line with the requirements of the EIA Regulations (i.e. as direct or indirect; short (<1 year), medium (1 – 10 years) or long-term (10+ years); permanent or temporary).
- 2.51 Summary of effect tables that outline the likely significant effects, receptors, residual level of effect and whether this is considered to be ‘Significant’ or ‘Not Significant’ will be provided at the end of each Technical Chapter within the ES.
- 2.52 Cumulative effects will be considered as a single co-ordinated assessment as outlined in **Chapter 14**.

Format of the ES

- 2.53 The ES will comprise four volumes:
- **Volume 1: Primary Report and Supporting Graphics;**
 - **Volume 2: Technical Appendices to the Primary Report;**
 - **Volume 3: Environmental Management Plan; and**
 - **Volume 4: Non-Technical Summary.**

Competent Expertise

- 2.54 Regulation 18, Paragraph 5(a) of the EIA Regulations requires the ES to be prepared by competent experts.
- 2.55 The EIA will be led by Turley. IEMA has awarded Turley the EIA Quality Mark in recognition of our technical quality and commitment to improvement in practice.
- 2.56 All technical assessments within the EIA will be undertaken by a suitably qualified project team, inclusive of a thorough technical review to assure technical credibility, followed by a subsequent procedural review by the EIA co-ordination team and EIA Project Director.
- 2.57 In line with the EIA Regulations, all contributors to the EIA are competent experts in EIA and this will be demonstrated in the ES with an overview of each key expert's qualifications, professional accreditations, and experience.



Interaction of the ES with Other Application Documents and Plans

- 2.58 The Application will be accompanied by a number of documents and plans, some of which will inform the ES and will be appended to the ES as supporting technical evidence (included as part of Volume 2). Other documents and plans will form standalone 'Application Documents' and where they contain information of relevance to the EIA, this will be summarised in the ES to ensure sufficient and robust data is included.
- 2.59 At this stage, the following documents are anticipated to be included as appendices to the ES in Volume 2:
- Heritage Statement;
 - Landscape and Visual Impact Assessment; and
 - Air Quality Assessment.

3. Site Context

Overview

- 3.1 This Chapter summarises the location of the EIA Boundary and its wider setting. Technical baseline information is provided in **Chapter 5** (for those topics for which no likely significant effects are identified) and in **Technical Chapters 6 – 13** (for those technical topics for which likely significant effects have been identified).

Location

- 3.2 As seen in **Figure 1.1**, the EIA Boundary is bound by Boundary Street West to the south, A5067 Higher Cambridge Street to the west, Manchester Metropolitan University's Faculty of Business and Law to the north and the listed Righto Building adjacent to the east.

Immediate / Wider Context

- 3.3 To the north of the EIA Boundary, beyond Manchester Metropolitan University's Faculty of Business and Law is the A57(M) Mancunian Way which separates the EIA Boundary from further student accommodation and university premises and the wider City Centre located to the north of this motorway.
- 3.4 To the west, beyond the A5067 Higher Cambridge Street, lie further PBSA premise, as well as residential and commercial premises.
- 3.5 To the south of the EIA Boundary are educational facilities associated with Manchester Metropolitan University, including the School of Digital Arts, as well as the Salutation Pub, with further educational facilities to the east of the EIA Boundary across Higher Cambridge Street separating the EIA Boundary from public realm associated with All Saints Park, beyond which lies Oxford Road.

Existing Uses

- 3.6 The EIA Boundary currently comprises Cambridge Halls, an existing, operational student accommodation development of approximately 800 beds with private courtyard areas and landscaping.
- 3.7 There are limited parking spaces on-site, with parking spaces being limited to disabled bays and spaces for members of staff / delivery drivers.

4. High Level Development Specification

Boundary

- 4.1 All temporary and permanent works will take place within the 'EIA Boundary' as defined on **Figure 1.1**. The EIA Boundary is approximately 1.29 hectares.

Overview of Site Preparation and Construction

- 4.2 Temporary fencing / hoarding will be erected around the perimeter of the EIA Boundary at the outset of construction.
- 4.3 Access during the demolition, enabling and construction stage will be from Higher Chatham Street, where footway and road narrowing and/or lane closures will be required. Access to adjacent properties (i.e. St Augustine's Church, Business School and Cavendish Hall) will be maintained throughout the construction stage. Construction traffic may also be direct from the A5067 Higher Cambridge Street (subject to Highway Authority agreement).
- 4.4 The existing Cambridge Halls student accommodation is currently on the EIA Boundary and therefore demolition and site clearance works will be required for the EIA Boundary. All buildings on the EIA Boundary will be demolished with all other features to be removed. Utilities (where applicable) and below-ground services / structures (where applicable) will be retained.
- 4.5 The demolition of the buildings will likely comprise the following general practices:
- Internal 'soft-strip' exercise, with all waste arisings removed from the building and segregated into allocated skips for appropriate processing/recycling/disposal;
 - Any hazardous materials (including asbestos, if present) will be removed, handled and disposed of in line with appropriate guidance and regulations;
 - Demolition works will be undertaken using mechanical demolition techniques (i.e. no form of explosive demolition will be required) from the highest point downward. All waste arisings will be separated into allocated skips to maximise material recycling;
 - Where required appropriate fencing/exclusion zones will be identified and implemented by the appointed contractor;
 - Removal of all site vegetation; and
 - Removal of floor slabs, foundations, and other areas of hardstanding.
- 4.6 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.
- 4.7 Given the existing built form it is assumed that there will be no requirement for significant cut and fill to create development plateau levels. It is assumed that excavation works will be limited to those associated with foundation design, utilities and drainage runs and

attenuation and sprinkler tanks and the small basement under one block (to a maximum depth of 4m). Given the demolition proposed, there is likely to be a net exportation of waste off Site.

- 4.8 Given the existing use of the EIA Boundary, the existing utilities will be utilised to serve the EIA Boundary. Utilities may require upgrading and re-routing to facilitate the increase in massing of the Proposed Scheme. Any diversion or reinforcement of utilities will happen as part of the enabling works and any off-site works will be the responsibility of the utility provider.
- 4.9 As a worst case, it is assumed that construction of the Proposed Scheme will require piled foundations.
- 4.10 The use of a tower crane/s will be required to facilitate the construction of the Proposed Scheme. The tower crane/s will be braced back to the structure/s, where necessary. These will be used to move load out materials, erect the superstructure, façade and roofing.
- 4.11 The proposed construction works will be carried out by a competent contractor that will comply with current legislation⁹. Furthermore, the proposed works will be carried out in accordance with current good environmental practice and guidance for construction. This will be captured by the Construction Environmental Management Plan (CEMP) for the project, the Contract Documents and method statements and risk assessments issued by the Contractor ahead of the works. 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 and appropriate levels of security (personnel / CCTV) will be provided. All construction activities will be in accordance with the Considerate Constructors Scheme.
- 4.12 During construction, either a central compound and/or a number of satellite compounds will be required for the contractor and appointed subcontractors, located either within the EIA Boundary or within Lower/Higher Chatham Street which will be temporarily closed during the demolition and construction period.
- 4.13 Construction working hours¹⁰ (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.

Proposed Scheme

- 4.14 The Proposed Scheme is for up to 2,600 purpose built student accommodation units (Use Class Sui Generis). Up to 615m² of retail (including associated plant and back of house provision) (Use Class E); 850m² to include either a NHS unit, community, or education, or a mix of these three uses (Use Class E, F1 or F2) are proposed.
- 4.15 Built form will be based on two distinct plots of buildings across the EIA Boundary of varying heights from 8 to 30 storeys above the plinth to break down massing. Two key towers, one in

⁹ This includes the Health and Safety at Work etc. Act 1974; the Control of Pollution Act 1974; and Construction (Design and Management) Regulations 2015.

¹⁰ 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: 020824].

each plot, will be a maximum of 24 and 30 storeys (plus rooftop plant) respectively. The maximum building height on Site will be 30 storeys and up to 95m above ground level¹¹.

- 4.16 A small basement will be provided under one block to accommodate sprinkler tanks and pump room.
- 4.17 There will be no provision for parking on-site. Vehicular access to the EIA Boundary itself with vehicles associated with taxi drop off and refuge collection will be from Higher Cambridge Street and Lower Chatham Street. Provision for disabled parking will be provided on Higher Chatham Street, and Lower Chatham Street and Cavendish Street, providing access through the EIA Boundary from Higher Cambridge Street. Drop off / pick up on move in and out days will be from Lower Chatham Street and Higher Chatham Street.
- 4.18 Priority pedestrian access will be from Lower Chatham Street, which will be pedestrianised. Access will also be off Higher Cambridge Street to retail uses.
- 4.19 Pedestrian access to Cavendish Street and through the Site will be maintained during the operational stage. During the construction stage pedestrian access will be rerouted along pavements via Higher Ormond Street and Boundary Street West with cycles using the existing road to the same route.
- 4.20 The existing cycle thoroughfare within the Site (along the Cavendish Street alignment) will remain closed and be re-routed during the operational stage to divert cycle movements via Higher Ormond Street and onto Boundary Street West. It is proposed that the existing toucan crossing is moved to enable a safe right hand turn from Boundary Street West on to Higher Cambridge Street to support this new route¹².
- 4.21 The Proposed Scheme will be operational 24 hours a day / 7 days a week.
- 4.22 Landscaping / open space will be provided on the ground floor and first floor within phase 2 through the provision of three distinct courtyards. Open space will also be provided on the seventh floor with areas of biodiverse planting, allotments and a greenhouse. The Proposed Scheme will include sport provision and student amenity on the rooftops.
- 4.23 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 Manual where practical. Specifically, the following measures are proposed:
- Implementation of sustainable drainage features such as raingardens, blue/ green 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;

¹¹ Assumed to vary +/- 2m from existing levels.

¹² Works proposed via Section 278 application.

- Drainage strategy will account for climate change impacts (30-45% rainfall intensity increase depending on storm event); and
 - Provision of surface water storage to meet local authority requirements, which will be agreed with Lead Local Flood Authority at detailed design.
- 4.24 All lighting installations will meet Institute of Lighting Professionals (ILP) Guidance Notes for the Reduction of Obtrusive Light 2021¹³.
- 4.25 Waste types will include general refuse, pulpable recycling, mixed recycling and food waste. It is assumed that waste collections will occur on a weekly collection by a private contractor.
- 4.26 The energy strategy for the Proposed Scheme will follow a fabric-first approach for improving energy performance, using the London Energy Transformation Initiative (LETI) guidance as baseline to optimise performance for the building and site. The Proposed Scheme will include the use of photovoltaic panels for renewable energy generation.

Timescales

- 4.27 Demolition is anticipated to commence in Q4 2025, with the construction being completed over 5 years. The Proposed Scheme will be delivered across two phases, with the first phase construction commencing in Q3 2026 and completed by 2029 and the second phase completed by 2030 (the second phase construction is due to commence in Q2 2027). It is assumed that the Proposed Scheme will be fully operational in 2030.

¹³ Institute for Lighting Professionals (2021). Guidance Note 01/21 for the Reduction of Obtrusive Light.

5. Technical Topics which are Not Significant

Introduction

- 5.1 As part of the EIA process and based on the information available to date, there are several technical topics for which a further detailed assessment as part of the EIA is not justified and these topics (and related effects) will not be reported within the ES (i.e., 'scoped out').
- 5.2 The technical topics for which no likely significant environmental effects have been identified are:
- Archaeology;
 - Biodiversity;
 - Water Environment;
 - Ground Conditions and Contamination;
 - Transport and Access;
 - Lighting;
 - Major Accidents and/or Disasters; and
 - Waste.
- 5.3 The technical topics listed above are considered in turn below in this Chapter, with a factual evidence base provided. Where mitigation has been used to inform this judgement, the identified mitigation has been captured within the Preliminary EMP provided in **Appendix 2.1**.
- 5.4 The other technical topics outlined within this EIA Scoping Report also identify effects that are unlikely / not significant. These are reported in **Chapters 6 – 13**.

Archaeology

Technical Baseline

- 5.5 A preliminary baseline has been produced, informed by data available from Historic England and mapping held by the National Library of Scotland (NLS). A search of the Greater Manchester Historic Environment Record has been requested from Greater Manchester Archaeological Advisory Service (GMAAS) at the University of Salford.
- 5.6 No designated heritage assets are located within the EIA Boundary.
- 5.7 Historic map evidence suggests that Cambridge Street and the adjoining streets laid had been planned by 1793 although by 1824 only the southern part of the EIA Boundary, to the south of Cavendish had been developed. The EIA Boundary had been largely developed by the time of the 1824, with larger properties to the south of Cavendish Street, and tightly packed terraces to the north. This suggest that, like many Georgian expansions, the initial

developments were of relatively high status but as the population increased and the area became more urban then, it fell further down the social scale. A warehouse is shown occupying the entirety of the southern part of the EIA Boundary on the 1915 Ordnance Survey. Six bomb detonations are recorded on the EIA Boundary; two high explosive bombs and four fire-bombs, dropped in three separate raids in August, October and December 1940. Unsurprisingly, the blast radii of these bombs are shown clear of buildings on Ordnance Survey maps of the immediate post-war period.

Effects Unlikely/Not Significant

- 5.8 The following effects are considered unlikely to be significant and therefore will not be considered further within the EIA or reported in the ES. A factual evidence base has been provided below to support this. Where mitigation has been used to inform this judgement, the identified mitigation has been captured within the Preliminary Environmental Management Plan (PEMP) provided in **Appendix 2.1**.
- 5.9 The potential for effects upon the settings of designated heritage assets and the wider historic townscape has been considered separately within **Chapter 7: Built Heritage** and will therefore not be addressed in this assessment.

Loss or damage of archaeological heritage assets during the construction stage

- 5.10 The Proposed Scheme does not have the potential to directly impact any archaeological remains which lie out the EIA Boundary and therefore, there will be no significant effect.
- 5.11 As no designated archaeological sites are recorded either on the EIA Boundary or within its vicinity it is likely that any that any archaeological remains that may be present will be of Medium, Low or Negligible importance. Given that the EIA Boundary has been developed since the mid-19th century and has been impacted by multiple cycles of development it is likely that any archaeological remains which may have been present will have been severely impacted and consequently the potential for an impact of high magnitude to occur is diminished.
- 5.12 Although the potential for previously unrecorded buried archaeological remains to be present on the EIA Boundary cannot be discounted, on present evidence it is considered unlikely that any impacts would be of such significance that they could not be mitigated by means of an archaeological condition. 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).
- 5.13 Therefore, loss or damage of any archaeological heritage assets during the construction stage is not considered to be significant and will not be considered further in the EIA or reported in the ES.
- 5.14 A standalone archaeological desk-based assessment (DBA) has been provided as **Appendix 5.1** and will also be submitted as part of the planning application in accordance with the Institute's '*Standard and Guidance for Historic Environment Desk-based Assessment*'¹⁴.

¹⁴ CIfA. 2017 -Updated 2020. Standard and Guidance for Historic Environment Desk-based Assessment. The Chartered Institute for Archaeologists. Available at: http://www.archaeologists.net/sites/default/files/CIfAS%26GDBA_3.pdf

Biodiversity

Technical Baseline

- 5.15 The existing Cambridge Halls is located within a dense urban area of Manchester directly associated with academic buildings and infrastructure, together with other residential accommodation and buildings and commercial uses. There is no semi-natural open greenspace in the local areas although small areas of trees/shrubs and landscape planting form part of the local street scene. Grosvenor Park, approximately 95m to the north east represents a larger area of formal planting.
- 5.16 The setting of Cambridge Halls is therefore dominated by sealed surfaces and buildings, well-lit by artificial lighting. See **Appendix 5.2: Biodiversity Figures** for further details.
- 5.17 There are no statutory sites of nature conservation importance within 5km of the EIA Boundary¹⁵.
- 5.18 There are no non-statutory sites of nature conservation importance (Sites of Biological Importance) located within 1.3km¹⁶. This is the Rochdale Canal Site of Biological Importance (SBI) and the Ashton Canal SBI.
- 5.19 The nearest watercourse, a regularly culverted and canalised length of the River Medlock, is located approximately 400m to the north-east, beyond significant urban infrastructure.
- 5.20 A screen of data within 1km held on the NBN Atlas¹⁷ included a number of species of invertebrates, plants and birds, but no species of protected mammals such as bats. A formal data search with the Greater Manchester Local Records Centre (GMLRC) did not hold any records for or adjacent to the application site. Within 2km there are records of widespread species of bats foraging and some 67 roosts, alongside varied bird species including a number that are listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), and otter. No records for reptiles or amphibians, but records do exist for badger and hedgehog within 2km.
- 5.21 Habitats for reptiles, amphibians, badger and many other taxa are absent at the EIA Boundary. Small areas of open and planted ground offer limited opportunities for smaller common bird species to feed/nest with invertebrate and plant communities being limited and influence by the on-site landscape planting and its management.
- 5.22 A search of www.magic.gov.uk highlighted 5 granted European Protected Species Licences for common pipistrelle bat (*Pipistrellus pipistrellus*) within 1km of Cambridge Halls. All were before 2019 and likely to reflect works associated with older buildings that offer potential roosting features.

¹⁵ Based on information shown on www.magic.gov.uk [Accessed on 15/07/24].

¹⁶ Checked using on-line information from the Greater Manchester Ecology Unit at <https://gmlrc.org/mapapp/?basemap=terrain> accessed on 15/07/24

¹⁷ NBN Atlas, <https://nbnatlas.org> accessed on 15/07/24

- 5.23 A ground-based visual external inspection of Cambridge Halls for habitats, potential bat roost features¹⁸ and opportunities for nesting birds was completed on 11th July 2024 by Matthew Johns, Director at Johns Associates¹⁹. A further detailed inspection of the building was also completed on 3rd December 2024. A final inspection in April 2025 will be completed to confirm no change in condition, prior to the submission of the associated planning application.
- 5.24 The building(s) at the EIA Boundary is relatively modern in construction, four-storey high, brick built, cavity walls, with well-fitted cladding and are in good condition (with respect to an absence of features likely to support roosting bats and nesting birds or access to them). No notable crevices, lifted tiles/cladding, obvious cavities, gaps beneath lintels or other features suitable to support roosting bats (Potential Roost Features) were noted. Furthermore, the building(s) are subject to high levels of artificial lighting that is likely to further limit suitability for roosting bats. Please refer to **Appendix 5.2** for photographic illustration of the buildings and architectural form, which significantly restricts suitability for roosting bats and nesting birds.
- 5.25 No opportunities for nesting birds were noted, other than the small areas of landscape planting, which would also be subject to regular disturbance associated with people and management.
- 5.26 No features considered suitable to support amphibians, reptiles, badger or other notable or legally protected species of wildlife were noted.

Effects Unlikely/Not Significant

- 5.27 The following effects are considered unlikely to be significant and therefore will not be considered further within the EIA or reported in the ES. A factual evidence base has been provided below to support this. Where mitigation has been used to inform this judgement, the identified mitigation has been captured within the Preliminary Environmental Management Plan (PEMP) provided in **Appendix 2.1**.

Habitat Loss from Site clearance and construction activities [Priority Habitats]

- 5.28 The demolition of the buildings and removal of any green infrastructure present has the potential to cause injury/mortality and the displacement of local wildlife.
- 5.29 Due to the nature of the buildings and their negligible-low suitability to support roosting bats, the low suitability for the green infrastructure to support notable populations of birds, invertebrates or other fauna, together with the adoption of tried and tested tertiary mitigation (e.g. Construction Environmental Management Plan and Landscape and Ecological Management Plan) any potential effects are likely to be negligible.

¹⁸ Bat Conservation Trust. 2023. Bat Surveys for Professional Ecologists. Available at https://cdn.bats.org.uk/uploads/pdf/Resources/For-professionals/Bat-Survey-Guidelines-4th-edition-AMENDED-27.03.24.pdf?v=1711530492&_gl=1*el8bb6*_ga*MTU0NDI2NDcyMi4xNzIxMTM4NzY1*_ga_G28378TB9V*MTcyMTE1NTA2Ny4yLjAuMTcyMTE1NTA2Ny4wLjAuMA..

¹⁹ Matt has a current Class 2 bat licence from Natural England, holds an Earned Recognition Licence for certain species of bats and holds a number of current European Protected Species licences.

- 5.30 Therefore, habitat loss to ecological receptors is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Disturbance and displacement from construction activities [bats and birds]

- 5.31 Noise, vibrations, and increased human activity can disturb and displace wildlife from their natural habitats.
- 5.32 Due to the nature of the buildings and their negligible-low suitability to support roosting bats, and the low suitability of adjacent buildings/land, the low suitability for the green infrastructure to support notable populations of birds, invertebrates or other fauna, together with the adoption of tried and tested tertiary mitigation (e.g. further precautionary inspections prior to demolition and/or as a result in any change in conditions or delay beyond 12 months, supervision by Ecological Clerk of Works as appropriate, Construction Environmental Management Plan and Landscape and Ecological Management Plan) any potential residual effects are likely to be negligible.
- 5.33 Therefore, noise, vibrations and increased human activity to ecological receptors is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Pollution from construction activities [habitats]

- 5.34 Construction activities can lead to air, water, and soil pollution, adversely affecting wildlife health and ecosystems. Use of chemicals and construction materials can lead to spills and runoff, contaminating water sources and soils, affecting both terrestrial and aquatic wildlife.
- 5.35 Notable habitats in the immediate vicinity are absent and therefore localised pollution effects on ecology are limited in extent. There is a risk that polluted runoff enters the surface water drainage system. However, the adoption of tried and tested tertiary mitigation (e.g. Construction Environmental Management Plan and Landscape and Ecological Management Plan) any potential residual effects are likely to be negligible.
- 5.36 Therefore, pollution effects to ecological receptors is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Fragmentation due to construction of Proposed Scheme

- 5.37 The construction of buildings can fragment habitats, isolating wildlife populations and reducing genetic diversity.
- 5.38 The Proposed Scheme will not change the local/wider arrangement of buildings.
- 5.39 Therefore, fragmentation of ecological receptors is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Mortality from construction activities [bats and birds]

- 5.40 Direct harm or mortality to wildlife can occur due to construction equipment and activities, such as demolition and entrapment.
- 5.41 Due to the nature of the buildings and their negligible-low suitability to support roosting bats, the low suitability for the green infrastructure to support notable populations of birds, invertebrates or other fauna, together with the adoption of tried and tested tertiary

mitigation (e.g. Construction Environmental Management Plan and Landscape and Ecological Management Plan) any potential residual effects are likely to be negligible.

- 5.42 Therefore, habitat loss to ecological receptors is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Light pollution from construction lighting

- 5.43 Increased artificial lighting during construction can disrupt nocturnal wildlife behaviour and ecosystems.

- 5.44 The Proposed Scheme is located in a densely developed urban area which is already subject to high levels of artificial lighting at night (e.g. street lights, light spill from windows, cars, security lights).

- 5.45 Therefore, light pollution at the construction stage is unlikely to vary and effects on ecological receptors is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Ongoing disturbance from increased human activity during operation [bats and birds]

- 5.46 Continued human presence and activity can perpetuate disturbances, leading to long-term stress and behavioural changes in wildlife.

- 5.47 The Proposed Scheme is located in a densely developed and occupied urban area and the scheme relates to the replacement of the existing student accommodation with further student accommodation (albeit an increase in capacity).

- 5.48 Therefore, ongoing disturbance to ecological receptors is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Light pollution from operational lighting [bats]

- 5.49 Increased artificial lighting can disrupt nocturnal wildlife behaviour and ecosystems.

- 5.50 The EIA Boundary is located in a densely developed urban area which is already subject to high levels of artificial lighting at night (e.g. street lights, light spill from windows, cars, security lights). It is assumed that the lighting levels across the EIA Boundary associated with the Proposed Scheme will not be notably different to that currently provided.

- 5.51 Therefore, light pollution is unlikely to vary and effects on bats is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Noise pollution from operational uses [bats and birds]

- 5.52 Operational noise from HVAC systems, machinery, and human activities can interfere with wildlife communication and stress animals.

- 5.53 The EIA Boundary is located in a densely developed urban area which is already subject to high levels of noise e.g. vehicles, alarms, people.

- 5.54 Therefore, noise is unlikely to vary and effects on ecological receptors is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Habitat alteration during operation

- 5.55 Landscaping and maintenance activities can alter habitats, affecting food sources and shelter for wildlife.
- 5.56 The Proposed Scheme will deliver a landscaping and habitat scheme, that will be managed in accordance with a Landscape and Ecology Management plan. This will be secured via planning condition to guide the long-term care and maintenance such features.
- 5.57 Therefore, potential habitat alteration effect to future landscape/habitat receptors is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Barriers to movement from increased massing of the EIA Boundary during operation

- 5.58 Buildings and associated infrastructure can act as physical barriers, impeding the movement and migration of wildlife. The current setting of the EIA Boundary does not interact with any notable wildlife corridors.
- 5.59 The Proposed Scheme will not change the local/wider arrangement of buildings and the increase in massing will not change potential wildlife corridors.
- 5.60 Therefore, barriers to movement for ecological receptors is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Increased predation risks [birds]

- 5.61 Increased human activity can attract predators (e.g., domestic cats and dogs), posing a threat to local wildlife populations.
- 5.62 The Proposed Scheme is a student accommodation scheme, and no cats, dogs or other predatory animals will be allowed.
- 5.63 Therefore, predation risks to birds is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Waste and litter generated during operation [protected species]

- 5.64 Improper waste management can attract pests and scavengers, leading to altered food webs and potential harm to wildlife through ingestion of or entanglement in litter.
- 5.65 The increase in the number of students occupying the EIA Boundary and introduction of retail, health and community uses will operate under the strict management implemented by the Applicant in accordance with local waste policy and legislation. Waste and litter is therefore unlikely to change from that currently experienced.
- 5.66 Waste and litter effects on ecological receptors is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Limitations and Assumptions

- 5.67 To ensure transparency within the EIA process, the following limitations and assumptions have been identified:

- The assumption on ecological receptors is provided based on an initial site visit, and the second survey in December 2024, based on a Potential Ecological Assessment, UKHAB survey, use of high powered optics and lighting to inspect more elevated features for potential bat roost features. Should the final pre-submission assessment conclude that rather than negligible, but that low suitability features are in fact present, then a single emergence survey using night vision aids would be undertaken in May 2025 (in accordance with the latest guidance²⁰).

Water Environment

Technical Baseline

Existing Surface Water Sewers

- 5.68 A CCTV survey was carried out by Lanes Group on 30 September 2024 and existing, private building connections to the United Utilities network were identified. The building currently uses a combined surface water and foul system that connects to a UU 600 x 750mm pipe on Higher Chatham Street.

Existing Foul/ Combined Sewers

- 5.69 A large 1,950mm diameter and 12m deep brick Victorian sewer, owned by United Utilities, runs through the centre of the development (Cavendish Street).
- 5.70 A 600 x 750 foul sewer of unknown depth, owned by United Utilities, is located within Cavendish Street.
- 5.71 A United Utilities foul sewer (300 x 400mm) approximately 3.5m below ground level, passes beneath the building to the North of the EIA Boundary between Lower Chatham Street and the A5067.
- 5.72 Multiple United Utilities combined sewers are located in the roads surrounding the EIA Boundary, including Lower Chatham Street, the A5067 and Boundary Street West.

Watercourses

- 5.73 There are no main rivers or canals within the boundary of the EIA Boundary.
- 5.74 The following local water features are located near the Proposed Scheme:
- Cornbrook: A fully culverted main river and not visible on the ground that discharges to the Manchester Ship Canal. This river passes c.210m south from the EIA Boundary;
 - River Medlock: Located c.320m north of the EIA Boundary, this river discharges into the River Irwell in Manchester city centre. The River Medlock plays a significant role in the local drainage system and flood management. The section of the river closest to the EIA Boundary is culverted under Hulme Street; and
 - Rochdale Canal: Located c.560m north of the EIA Boundary, the Rochdale Canal primarily serves as a navigable waterway for boats. The canal connects to the Bridgewater Canal and the River Medlock.

²⁰ Bat Conservation Trust. 2023. Bat Surveys for Professional Ecologists.

Flood Risk

Surface water

- 5.75 The majority of the EIA Boundary is located within the Environment Agency's (EA) Flood Zone 1²¹ which is classified to be at "Low Risk" of fluvial flooding.
- 5.76 There is a section of Flood Zone 2²² located in the southwest of the EIA Boundary on Boundary Street West. From information provided in the Flood Risk Assessment report by Arup CAM-ARP-ZZ-ZZ-RP-C-0001, the south westerly corner of the EIA Boundary appears to be in Flood Zone 2²¹ due to the levels within the highway being at a lower level than the existing development. As the EIA Boundary is located at a higher elevation than the surrounding highways and the predicted flood levels (with the lowest site level at 37.38mAOD compared to the peak water level of 36.63mAOD in Flood Zone 2), it has been classified as Flood Zone 1.

Critical Drainage Area

- 5.77 The Strategic Flood Risk Assessment for Manchester, Salford and Trafford Councils' Level 2 Hybrid Strategic Flood Risk Assessment (SFRA)²³ undertaken in 2011 denotes the EIA Boundary as being within the "Conurbation Core" Critical Drainage Area (CDA). The Manchester Core Strategy states that the recommended allowable discharge rates for CDAs following development should aim to reduce proposed surface water runoff rates to 50% of the pre-developed flows.

Groundwater Flood Risk

- 5.78 The EIA Boundary is not identified as an area at risk of ground water flooding.

Reservoir Flood Risk

- 5.79 Based on the UK Government Long Term Flood Risk Portal²⁴, the EIA Boundary can be potentially affected by Audenshaw reservoir. Although flooding from the reservoir is extremely unlikely, this will be considered during design development of the ground and finished floor levels for the proposed superstructure by reviewing the distance from the nearest reservoirs which are located several kilometres away to the east of Manchester.

Canal Hazard Zone

- 5.80 There are no canals adjacent to the EIA Boundary. The SFRA Canal Hazard Zone assessment shows that there are no areas within the EIA Boundary that are in a canal overtop hazard or breach zone.

²¹ Flood Zone 1 (low probability) is defined as land assessed as having less than a 0.1% annual probability of flooding from a river or the sea.

²² Flood Zone 2 (medium probability) is defined as land assessed as having between a 1 in 100 and 1 in 1000 annual probability of river flooding (1% and 0.1%) or between a 1 in 200 and 1 in 1000 annual probability of sea flooding (0.5%-0.1%) in any year.

²³ Salford City Council, Online, Strategic Flood Risk Assessment (2011)
<https://www.salford.gov.uk/planning-building-and-regeneration/salfords-natural-environment/flood-risk/strategic-flood-risk-assessment/>

²⁴ Gov.uk, website, <https://check-long-term-flood-risk.service.gov.uk/risk#>

Effects Unlikely/Not Significant

- 5.81 The following effects are considered unlikely to be significant and therefore will not be considered further within the EIA or reported in the ES. A factual evidence base has been provided below to support this. Where mitigation has been used to inform this judgement, the identified mitigation has been captured within the Preliminary Environmental Management Plan (PEMP) provided in **Appendix 2.1**.

Increased risk of surface water flooding during construction and operation [construction workers and future users of the Proposed Scheme and offsite receptors]

- 5.82 Localised flooding can cause damage to the building of the Proposed Scheme and surrounding landscape. With the EIA Boundary located in Flood zone 1 (low probability) , 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. During operation, the drainage strategy will ensure the design of the Proposed Scheme does not subject future receptors or off-site receptors to flooding by implementing appropriate attenuation in line with MCC Critical Drainage Area requirements.
- 5.83 Therefore, surface water flooding is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Impacts to water quality during construction

- 5.84 The flow and quality of rivers and streams can be impacted by changes in land use, including new developments. Flooding events can also affect waterway dynamics. Given the significant distance (approx. 450m) to the nearest river (Medlock) this is deemed unlikely to be affected by the proposed works. A temporary drainage strategy will be put in place as part of the Contractors Site Management Plan, where the appropriate spill mitigation measures will be addressed as part of the responsibilities under CDM 2015.
- 5.85 Therefore, impact to water quality to the local watercourses is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Impacts to groundwater

- 5.86 Changes in groundwater levels or groundwater quality can directly affect aquatic habitats, such as those found in wetlands, rivers, and groundwater-fed ecosystems
- 5.87 The Proposed Scheme is unlikely to change local groundwater levels. Local areas of perched groundwater are likely to exist in the Made Ground, otherwise ground water levels are expected at the depth of 9-12m. During construction, potentially perched ground water within the Made Ground will be controlled by the Contractor using appropriate site measures as part of their Risk Assessments and Method Statements. Therefore, this has not been considered significant and will not be considered further in the EIA or reported in the ES.
- 5.88 Proposed foundation piles are expected to reach the rockhead depth of 6.8 to 9.9m so adequate measures will be taken if piling can pose a risk of contamination.

Changes in land stability

- 5.89 Flooding and changes in water flow patterns can influence soil stability and slope stability, potentially leading to erosion, landslides, or other geotechnical issues. Given the low likelihood of flooding and that groundwater levels (as described above) are not considered to

change as a result of the construction and operation of the Proposed Scheme, land stability caused by a change in water flow patterns is not considered a significant risk and will not be considered further in the EIA or reported in the ES.

Increased potable water demand

- 5.90 The EIA Boundary is currently operational as a PBSA development, and therefore there will be some potable water usage already, that the Proposed Scheme will present an uplift to.
- 5.91 The EIA Boundary is located in the Manchester City Centre where the potable water network is very likely to have a capacity for new development. This will be confirmed with United Utilities as the design progresses and estimated utility demands have been confirmed with the design team. Given the City Centre location, access to potable water is likely easily accessible. Once utility information has been obtained, further review of connection to local potable water network can be undertaken. Risk to contamination to the potable water supply is low as a standard water connection will be undertaken following the New Roads & Street Works Act 1991.
- 5.92 Therefore, the increased potable water demand is not considered to be significant and will not be considered further within the EIA and reported within the ES.

Increased foul water flows

- 5.93 The EIA Boundary is currently operational as a PBSA development, and therefore there will be some existing foul water flows that the Proposed Scheme will present an uplift to.
- 5.94 At this stage, it is expected that the Proposed Scheme will reuse existing foul drainage gravity connections to the public network. This approach will be confirmed through additional surveys and foul flow rate estimations during RIBA Work Stage 3, in coordination with the design team. Early engagement with United Utilities has also been initiated, as the Proposed Scheme will need to coordinate with existing United Utilities sewers on Cavendish Street and includes connections to combined sewer network.
- 5.95 At this stage, it has been assumed that the foul loadings will increase given the additional occupancy of the Proposed Scheme. However, with the reduction in the flow rate of surface water entering the combined sewer, this impact could be offset by the proposed surface water discharge restrictions. Hydraulic modelling will be conducted at the next design stage when further information is obtained on proposed flow rates. This will allow United Utilities to review the capacity of their network and inform of the impact the expected additional discharge into the combined sewer network will have in this location.
- 5.96 Damage to the existing sewers is unlikely due to offsets set out by United Utilities and Building Regulations (H4) being implemented by the design team to ensure the condition is reviewed and impacts minimised as part of the Proposed Scheme. This has been confined with engagement with UU to review the proposed structure against their easement requirements. Further investigations will be undertaken to confirm the location/ position, and condition of these deep sewers to help inform the next stage of design.
- 5.97 Therefore, the increased foul water flows are not considered to be significant and will not be considered further within the EIA and reported within the ES.

Limitations and Assumptions

5.98 To ensure transparency within the EIA process, the following limitations and assumptions have been identified:

- This evidence has been written with the information available at the time of writing;
- Locations, conditions and sizes of existing drainage is still unknown on Cavendish St until further site investigation is undertaken;
- Initial pre-planning discussions have been undertaken with the Lead Local Flood Authority (LLFA) and United Utilities (UU) to confirm the proposed discharge rates and drainage strategy prior to RIBA Stage 2 submission. Further engagement needed during planning to review Flood Risk Assessment with the relative authority to confirm these assumptions.
- There is potential to incorporate Sustainable Drainage into the development process and this is being considered as part of the design process.

Ground Conditions and Contamination

Technical Baseline

5.99 The following sources of information have been reviewed to establish the baseline conditions at the EIA Boundary:

- Arup (1994) Halls of Residence Phase 1 Geotechnical Report²⁵;
- Exploration Associates (1993) Halls of Residence – Phase One Factual Report on Ground Investigation²⁶;
- LTG Ground Engineering (1994) Halls of Residence Report on Site Investigation²⁷;
- Zetica online UXO risk maps²⁸;
- Coal Authority Interactive Map²⁹; and
- British Geological Survey 1:10,560 Map Sheet SJ89NW³⁰.

5.100 The topography has been interpreted from Ordnance Survey Terrain 50 DTM data³¹, it is relatively flat and ranges between 36mOD to 37mOD.

²⁵ Arup (1994) Halls of Residence Phase 1 Geotechnical Report

²⁶ Exploration Associates (1993) Halls of Residence Phase One Factual Report on Ground Investigation

²⁷ LTG Ground Engineering (1994) Halls of Residence on Site Investigation

²⁸ Zetica (2024). Zetica UXO risk maps. Available at: <https://zeticauxo.com/guidance/risk-maps/> [Accessed: 27 June 2024]

²⁹ The Coal Authority (2024). Interactive Map Viewer. Available at: <https://mapapps2.bgs.ac.uk/coalauthority/home.html> [Accessed: 27 June 2024].

³⁰ British Geological Survey (1976) Solid and Drift Geology 1: 10,560 Map Sheet SJ89NW

³¹ British Geological Society (2023) GeoIndex Onshore. Available at: <https://www.bgs.ac.uk/map-viewers/geoindex-onshore/> [Accessed: 02 July 2024]

History

- 5.101 Early historical Ordnance Survey mapping (circa 1840's) shows the northern half of the EIA Boundary occupied by terraced housing with the southern half occupied by a warehouse.
- 5.102 By 1956, some of the terraced houses had been demolished and by the early 1970's, the warehouse is no longer present.
- 5.103 Prior to the development of the EIA Boundary for student accommodation in the mid 1990's, the northern half of the EIA Boundary was level and used as an all-weather football pitch and grassed area while the southern half of the EIA Boundary contained an approximately level central area within a bund of about 1m in height.

Geology

- 5.104 British Geological Survey (BGS) 1:10,560 mapping sheet shows the EIA Boundary to be underlain by superficial deposits of glacial sand and gravel. This is described as gravel (thin and patchy), on boulder clay.
- 5.105 Bedrock at the EIA Boundary is sandstone of the Chester Pebble Beds Formation of the Sherwood Sandstone Group.
- 5.106 Historical ground investigation (see **Figure 5.1**) has recorded made ground at thicknesses ranging between 1.0m bgl to 4.7m bgl, however, this will have changed since the ground investigation was carried out in the 1990s as a result of the construction of the existing buildings. The made ground overlies glacial sand and gravels (1.8 – 2.3m thick) followed by glacial till (up to 6.15m thick). Bedrock was encountered as a highly to moderately weathered sandstone around 6.8m to 9.9mbgl. It is unlikely that the natural ground conditions have changed since the previous ground investigation and the data from the historical ground investigation is anticipated to be indicative of the present natural ground conditions. A supplementary ground investigation will be required to inform the foundation design of the Proposed Scheme.

Groundwater and surface water

- 5.107 Superficial deposits on-site are classed as a Secondary A aquifer by the Environment Agency and the Sherwood Sandstone Group is classed as a Principal Aquifer. Groundwater at the EIA Boundary is classified as medium to low groundwater vulnerability. The Sherwood Sandstone is an important source for groundwater drinking supply in the region and the EIA Boundary is within Source Protection Zone 3³².
- 5.108 Groundwater was not observed during the historical ground investigations; it was suggested in the report for the 1994 investigation that ground water level at the EIA Boundary is around 3 to 4m below rockhead.
- 5.109 There are no surface water bodies within 250m of the EIA Boundary.

Coal mining

- 5.110 The EIA Boundary does not lie within a Development High Risk Area defined by the Coal Authority. The EIA Boundary lies within a Coal Mining Reporting Area, but the Coal Authority Interactive Map shows no recorded shallow or deep workings, nor probable shallow

³² Natural England. MAGIC - Multi-Agency Geographic Information for the Countryside. Available at: <https://magic.defra.gov.uk/> [Accessed: 27 June 2024]

workings beneath the EIA Boundary. Productive coal measures strata are expected to lie at considerable depth beneath the EIA Boundary and will not affect the Proposed Scheme.

Contamination

- 5.111 Based on the EIA Boundary history, there are limited potential sources of contamination, consisting of local deposits of Made Ground associated with demolition rubble. The ground investigation conducted prior to the development of the existing halls of residence did not encounter any significant contamination and remediation was not required to enable the current development.
- 5.112 No potentially significant sources of hazardous ground gas have been identified.

Radon

- 5.113 Radon is a natural radioactive gas which enters buildings from the ground. The UK Health Security Agency (UKHSA) recommends that radon levels should be reduced in homes where the annual average concentration is at or above the Action Level of 200 becquerels per cubic metre. The UKHSA interactive map of radon³³ in the UK show that the EIA Boundary is in an area where less than 1% of homes are at or above the Action Level. Therefore, no radon protection measures will be required for the new buildings on the EIA Boundary.

Unexploded Ordnance

- 5.114 Zetica online unexploded ordnance (UXO) mapping shows the EIA Boundary to be at moderate risk from UXO. With the EIA Boundary having undergone redevelopment several times post WWII, it is considered unlikely that UXO would be encountered, and a detailed risk assessment is not considered essential.

Effects Unlikely/Not Significant

- 5.115 The following effects are considered unlikely to be significant and therefore will not be considered further within the EIA or reported in the ES. A factual evidence base has been provided below to support this. Where mitigation has been used to inform this judgement, the identified mitigation has been captured within the Preliminary Environmental Management Plan (PEMP) provided in **Appendix 2.1**.

Potential release of existing ground contamination and accidental release of new contamination during construction and operation [construction workers, future site users and surrounding human health receptors]

- 5.116 Deposits of made ground associated with historical site uses will be present and could contain contaminants. Although the available historical ground investigation indicated no significant contamination was present and the current residential use of the EIA Boundary is unlikely to have caused significant contamination of the ground, the nature of the made ground and concentrations of common contaminants will be assessed in a new ground investigation. The new ground investigation will be planned following the geotechnical desk study and this will be conducted during the early RIBA stages. The ground investigation data will inform a contamination risk assessment and remediation strategy that will, if required, be submitted as part of the planning process.

³³ UK Health Security Agency (2024). UK maps of radon. Available at: <https://www.ukradon.org/information/ukmaps> [Accessed: 27 June 2024]

- 5.117 There is a possibility that, if contaminated, the made ground may pose a short-term risk to human health for the construction workforce via potential exposure pathways including dermal contact, dust/fibre inhalation and ingestion pathways outdoors, and inhalation of gases. Risks to human health during construction are required to be managed under the Health and Safety at Work Act (1974) and are typically mitigated by applying good working practices set out in a Code of Construction Practice (CoCP)/Construction Environmental Management Plan (CEMP) and Health and Safety Plan.
- 5.118 If present, any contaminated made ground could pose a risk to the future site users if exposed at surface. The Proposed Scheme is primarily buildings or hardstanding, with any soft landscaping likely to be within raised planters. The requirement for clean cover soils over any contaminated ground will be assessed within the contamination risk assessment and implemented through a remediation strategy.
- 5.119 There is also the potential for accidental spillages during the construction stage. 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).
- 5.120 Therefore, assuming the implementation of the tertiary mitigation measures described above, the impact from contamination on human health during construction and operation is not considered to be significant in EIA terms and will not be considered further in the EIA or reported in the ES.

Potential release of existing contamination and accidental release of new contamination during construction and operation [Underlying Principal Aquifer, Secondary A Aquifer]

- 5.121 Disturbance of contaminated ground, such as during earthworks and foundation construction, could cause a temporary increase in the leaching and mobilisation of contamination. However, significant sources of contamination are not anticipated, and only low levels of contamination were encountered in historical ground investigation.
- 5.122 The creation of piled foundations, depending on pile type, may create new pathways by which contamination (if present) could reach the underlying Principal Aquifer. The most likely pile type (cast-in situ bored piles) is low risk in this regard. If significant ground or groundwater contamination is encountered during the ground investigation, a Foundation Works Risk Assessment (FWRA) will be prepared and implemented through the planning process.
- 5.123 Therefore, assuming the implementation of the tertiary mitigation measures described above the impact from contamination to controlled waters during construction and operation is not considered to be significant in EIA terms and will not be considered further in the EIA or reported in the ES.

Impact on geology and ecology during construction and operation [Nationally designated areas]

- 5.124 A search of nearby geological Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), National Parks, Special Protection Areas (SPA), Special Areas of Conservation

(SAC) indicates that there are none within the study area or within 250m of the EIA Boundary and impacts and potential effects from the disturbance to these receptors are very unlikely.

- 5.125 Therefore, impact on geology and ecology to nationally designated areas during construction and operation is not considered to be significant in EIA terms and will not be considered further in the EIA or reported in the ES.

Potential release of hazardous ground gases during construction and operation [Site end users, Site maintenance workers, surrounding human receptors]

- 5.126 Ground gas is not anticipated to be present on-site as the geology is not indicative of high organic matter content. The EIA Boundary history is also not indicative of significant sources of contamination and any coal-bearing strata are expected to be very deep underground. The supplementary ground investigation for the Proposed Scheme would evaluate the risk of the presence of ground gas on the EIA Boundary.
- 5.127 A search of the UKHSA dataset has determined that the EIA Boundary is in an area where less than 1% of homes have radon concentrations above the Action Level. Therefore, radon protection measures would not be required for new homes on the EIA Boundary.
- 5.128 The risk posed by hazardous ground gases during construction and operation is therefore not considered significant and will not be considered further in the EIA or reported in the ES.

Risk of unexploded ordnance (UXO) during construction and operation [construction workers, Site users, surrounding human receptors]

- 5.129 An online search has shown that the EIA Boundary may have a moderate risk of UXO, due to its location in Manchester City Centre which was affected by air raids during WWII. However, the EIA Boundary has undergone development several times post WWII hence it is considered unlikely that any UXO is present on the EIA Boundary. The geotechnical desk study will determine if a UXO risk assessment by specialists is required. In the event that a risk assessment by UXO specialists is required and conducted, the necessary tertiary mitigation measures will present within the risk assessment.
- 5.130 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.
- 5.131 Nevertheless, any risk mitigation required as part of any future developments will be assessed as part of the Construction Design and Management Regulations 2015 and will be incorporated into the Construction Phase Plan, Method Statements and Health and Safety Plans and the Construction Environmental Management Plan (CEMP).
- 5.132 UXO poses a risk during construction, when the ground has the potential to be disturbed, but is not a potential risk during operation of the Proposed Scheme.
- 5.133 The risk is therefore not considered significant during construction and operation and will not be considered further in the EIA or reported in the ES.

Encountering unstable ground conditions during construction and operation [construction workers, Site users]

- 5.134 The baseline information reviewed for this technical chapter has not indicated any form of unstable ground within the EIA Boundary.

- 5.135 It is assumed that ground stability during construction will be assessed and managed through the Principal Contractor. This will include all necessary groundworks being implemented in order to provide suitable construction platform(s) (i.e. removal of any compressible/unstable ground encountered) during enabling works and/or construction, in line with relevant standards and building regulations including CIRIA Report C572: Treated ground engineering properties and performance; British Research Establishment document FB75: Building on Fill – Geotechnical Aspects and BS 6031:2009: Code of Practice for Earthworks. These measures will be documented within the CEMP.
- 5.136 It is assumed that any unstable ground encountered during construction will be dealt with at the time of construction, and that no effects of unstable ground will be present during operation of the Proposed Scheme.
- 5.137 The risk associated with unstable ground during construction and operation is therefore not considered significant and will not be considered further in the EIA or reported in the ES.

Presence of asbestos during construction and operation [construction workers, Site users, surrounding human receptors]

- 5.138 The existing halls of residence buildings were constructed in the 1990s, when some forms of asbestos were still used in building materials. The UK Government advises that any buildings constructed before 2000 may contain asbestos.
- 5.139 No information relating to asbestos surveys, or asbestos registers for the existing Halls of Residence, have been reviewed as part of this technical chapter. Any asbestos registers for the existing buildings will be provided to the enabling works contractor to inform the demolition works.
- 5.140 If asbestos risk registers are not available, then an asbestos survey will be conducted prior to the demolition works and any recommended mitigation implemented. These measures will be documented within the CEMP.
- 5.141 Provided asbestos is removed prior to demolition of the existing structures, no risk should remain during operation of the Proposed Scheme.
- 5.142 The risk during construction and operation is therefore not considered significant and will not be considered further in the EIA or reported in the ES.

Limitations and Assumptions

- 5.143 To ensure transparency within the EIA process, the following limitations and assumptions have been identified:
- The assessment of likely significant effects presented in this technical chapter is based on historical ground investigation information that was carried out prior to the current development. It is assumed that supplementary intrusive ground investigation will be carried out to inform the design of the Proposed Scheme, which will allow the identification of contaminated land risks.

- Any contaminated land or ground instability risks identified as a result of supplementary ground investigation will be dealt with in accordance with the requirements for ground conditions and pollution set out in the National Planning Policy Framework (NPPF)³⁴.
- No technical consultation has been carried out as part of this scoping report. It is assumed that consultation with the Local Authority Contaminated Land Officer and the Environment Agency will take place during the planning process.
- Contamination may exist within existing buildings and site infrastructure in the form of asbestos. It is assumed that an assessment of asbestos-related risks will be carried out by a specialist prior to the demolition of existing buildings. This assessment will be separate to the EIA process.

Transport and Access

Technical Baseline

Existing site

5.144 The EIA Boundary includes an existing 770 bed student residential accommodation located in a sustainable location and benefiting from excellent location in proximity to sustainable transport options and good connectivity to the surrounding highway network. The EIA Boundary is surrounded by other education uses (operated by Manchester Metropolitan University) and other amenities which students can access via active travel modes.

Local Highway Network and Existing site Access

5.145 The EIA Boundary has good connectivity to the local highway network with vehicular/servicing access taken directly from Higher Chatham Street. The EIA Boundary is fronted by Lower Chatham Street, Higher Chatham Street, Boundary Street West, Higher Cambridge Street and a private road for access to existing building elevations for maintenance. All local roads fronting the EIA Boundary are subject to a 20mph speed limit.

5.146 Cavendish Street, a section that passes through the EIA Boundary is a private road but open to the public as a pedestrian and cycle thoroughfare (discussed further below). This also forms the vehicle entrance to the EIA Boundary with a maximum headroom clearance of 4m. Vehicular access to the EIA Boundary from Higher Cambridge Street is via Boundary Street West and Higher Chatham Street.

5.147 Lower Chatham Street and Higher Chatham Street has publicly accessible time limited marked parking bays, and a marked loading bay towards the southern end of Higher Chatham Street. The remainder of these roads are restricted by double yellow road markings. A raised island is provided where these two roads cross with the entrance to the EIA Boundary (also aligned with Cavendish Street).

5.148 The northern end of Lower Chatham Street serves a number of properties including the Faculty of Business and Law, St Augustine's Church and Cavendish Hall of Residence.

³⁴ Department for Levelling Up, Housing & Communities (2023) National Planning Policy Framework, December 2023

- 5.149 Boundary Street West fronts the southern boundary of the EIA Boundary. Vehicles stopping, waiting or loading regulations are implemented (as indicated by double yellow road markings along both sides of the carriageway).
- 5.150 The A5067 Higher Cambridge Street fronts the western frontage of the EIA Boundary. It is considered a key distributor road from the A57(M) motorway located approximately 180m to the north of the EIA Boundary. Double yellow road and kerb markings prohibit stopping, waiting and loading along the frontage of the EIA Boundary except between its junction with Cavendish Street and Boundary Street West where loading is permitted outside the periods of 7am – 10am and 4pm – 7pm Monday to Friday.
- 5.151 To provide some indication of flows on the local road network, the nearest available DfT counter (site 81152) is located on Cavendish Street, approximately 70m east of its junction with Higher Cambridge Street. The estimated annual average daily flow for all motor vehicles is 6,054 of which 63 are HGVs and 36 are buses.

Pedestrian and Cycle Access

- 5.152 Pedestrian and cycle access to the EIA Boundary is taken directly from the Higher Chatham Street/Cavendish Street junction (also serving as the vehicular site access) and non-vehicular entrance from the Cavendish Street/Higher Cambridge Street junction.
- 5.153 East of the EIA Boundary is the Oxford Road cycleway, which acts as a key corridor into the City Centre. Oxford Road can be reached from the site via existing traffic free routes comprising sections of cycleway segregated from pedestrians and some in shared space.
- 5.154 Footways are generally provided along local roads fronting the Site. The thoroughfare (along the Cavendish Street alignment) and then onwards to the east is a signed traffic-free cycle route. Toucan crossings are provided at the Cavendish Street/Higher Cambridge Street junction to facilitate crossing of the junction in all directions. A controlled pedestrian crossing is also provided across Higher Cambridge Road towards the southwestern corner of the EIA Boundary.
- 5.155 National Cycle Network Route 6 (NCN6) passes within 200m of the west of the EIA Boundary. Access to NCN6 is via the Higher Cambridge Street/Cavendish Street junction, and then along Cavendish Street on the carriageway (with on-road marked cycle lanes). NCN6 in the vicinity of the EIA Boundary (i.e. along Newcastle Street and Epping Street) are on-road signed routes where cyclists travel with traffic.

Public Transport

- 5.156 The nearest bus stops to the EIA Boundary are located along its frontage on Higher Cambridge Street. The southbound stop, located at the north-western corner of the EIA Boundary, serves several bus services destined for Manchester Airport on an hourly basis and Whythenshawe on a half-hourly basis during the day.
- 5.157 The northbound bus stop, located at the south-western corner of the EIA Boundary, serves a similar number of bus services calling at Piccadilly with a combined frequency of up to six services per hour during the day.
- 5.158 Additional bus stops are located on Cavendish Street and the A34 Oxford Road, within a 500m walking distance of the EIA Boundary, that combined provide access to a significant number of regular bus services.

- 5.159 Manchester Oxford Road mainline rail station is located 800m walking distance from the EIA Boundary. This station is served by several operators, such as Transpennine Express, Northern, Transport for Wales and East Midlands Railway, with services destined for Manchester Airport, Liverpool Lime Street, Blackpool North, Chester, Southport, Nottingham, Barrow in Furness, Norwich as well as towns and cities on route.
- 5.160 The nearest stop for the Manchester tram network is at Deansgate – Castlefield, located a 1.2km walking distance from the EIA Boundary. It is unlikely that this distance would be typically walked unless the journey starts/ends along the tram route.

Deliveries and Servicing

- 5.161 Vehicles delivering to EIA Boundary are restricted to entering the EIA Boundary via the Cavendish Street/Higher Chatham Street entrance, using the loading bay at the southern end of Higher Chatham Street or along the Site frontage where traffic regulation orders allow.

Parking Provision

- 5.162 Cycle parking is provided for students on-site that are accessed from within the central courtyard.
- 5.163 No on-site motorcycle parking is provided.
- 5.164 A limited provision of car parking is provided on-Site – comprising 4 disabled/accessible spaces and 4 electric vehicle charging bays. Students, staff and visitors are generally discouraged to drive to the EIA Boundary and are reliant on off-site and on-street parking (the nearest being the time limited parking provision on Lower Chatham Street and Higher Chatham Street).

Effects Unlikely/Not Significant

- 5.165 The following effects are considered unlikely to be significant and therefore will not be considered further within the EIA or reported in the ES. A factual evidence base has been provided below to support this. Where mitigation has been used to inform this judgement, the identified mitigation has been captured within the Preliminary Environmental Management Plan (PEMP) provided in **Appendix 2.1**.
- 5.166 The identification of potential impacts on receptors has been informed by IEMA guidance³⁵.

Severance as a result of construction and operational stage traffic on Road Users

- 5.167 Paragraph 3.16 of the IEMA guidance sets out the changes in traffic flow that correspond to the likely impact of severance. A 30% change in traffic flow is regarded as a 'slight' change in severance, 60% change is regarded as a 'moderate' change and a 90% change is regarded as a 'substantial' change.
- 5.168 Traffic flow increases during the operation stage of the Proposed Scheme is unlikely to result in a 30% increase of trips on the local road network. The Proposed Scheme will not provide any car parking for staff or students (save for a small number of accessible spaces as required to accord with the Local Authority's parking standards).

³⁵ IEMA (2023) Guidelines for the Environmental Assessment of Traffic and Movement. Available at: [IEMA - New IEMA Guidance: Environmental Assessment of Traffic and Movement - July 2023](#) [Accessed: 26 July 2024].

- 5.169 The traffic flow increases owing to construction are currently unknown. However, it is unlikely that construction traffic will result in a 30% increase in traffic along Higher Cambridge Street and Boundary Street West. A Construction Environmental Management Plan (CEMP) will be produced and agreed with the Local Highway Authority to agree routing, site access and programme.
- 5.170 Therefore, severance is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Delay as a result of construction and operational traffic on Road and Pedestrian Transport Users, Pedestrians and Cyclists

- 5.171 The IEMA 2023 guidance makes reference to potential delays to drivers and pedestrians. Users of other modes can also experience delays, such as cyclists and those travelling by bus.
- 5.172 The Proposed Scheme will not be providing general car parking to staff and students and therefore will not become a significant vehicular trip generator/attractor. Trips relating to student move-in/out days are likely to be occasional (anticipated to be at two points in the year). 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. Such a strategy is already in place for the student accommodation on Site and is effective in managing this activity.
- 5.173 Servicing and deliveries are likely to be linked trips and therefore in themselves are not considered to be a significant increase.
- 5.174 Vehicles relating to pick-up/drop-off movements, i.e. public transport and taxis, will utilise sustainable transport modes that already operate on the local transport network with traffic flows likely to remain within daily variations.
- 5.175 The traffic flow increases owing to construction are currently unknown. However, it is unlikely that increases in construction traffic will result in an increase that will create significant delay to road users. This is particularly likely considering the Site is located around 100m from the A57(M) motorway junction and construction access to the Site is likely to be taken off the A5067 Higher Cambridge Way (within this 100m section). A Construction Traffic Management plan will agreed with the highway Authority that will set out construction routing, access and working arrangements.
- 5.176 Therefore, delay is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Changes to non-motorised user amenity as a result of construction and operational traffic on Pedestrians and Cyclists

- 5.177 Pedestrian amenity is broadly defined as the relative pleasantness of a journey and is considered to be affected by traffic flow, traffic composition and pavement width/separation from traffic. The Proposed Scheme will not have a detrimental impact on pedestrian amenity, and furthermore, will seek to deliver an enhanced environment for Site users and those passing along its frontages.
- 5.178 The IEMA guidance suggests that “a tentative threshold for judging the significance of changes in pedestrian amenity would be where the traffic flow (or HGV component) is halved

or doubled” and that “*thresholds... should be used cautiously in any assessment. The assessment of amenity should pay full regard to specific local conditions.*”

- 5.179 The Proposed Scheme is unlikely to create additional traffic that would be considered to change the perception of amenity using the thresholds above during operation.
- 5.180 Traffic flow increases owing to the construction are currently unknown. However, considering that the Site is located within 100m of the A57(M) with the potential for construction access to be taken directly from the A5067, it is unlikely to change the perception of amenity along the Site frontages. Furthermore, construction access is to be taken via Higher Chatham Street and Boundary Street West. These routes already form part of University’s routes for general servicing and maintenance, as well as being used for access by other recent developments, and therefore non-motorised users are likely to be familiar with large vehicles and construction traffic using these roads.
- 5.181 Construction activity will satisfy the appropriate Local Authority processes during Construction which includes the production of a CEMP, application 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. These will consider non-motorised amenities as a matter of protocol.
- 5.182 As part of the construction management measures (to be secured by the CEMP), suitable signage will be provided (where appropriate) for pedestrian and cyclists, to minimise disruption. There are existing signalised crossings in close proximity to the Site to direct pedestrians to alternative routes to pass the Site, if necessary.
- 5.183 Therefore, non-motorised user amenity is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Fear and intimidation as a result of construction and operational traffic on Pedestrians and Cyclists

- 5.184 The IEMA guidance cites fear and intimidation created by moving objects (vehicles in this regard) that is dependent upon on factors such as the total volume of traffic, heavy vehicle composition, speeds, proximity and protection.
- 5.185 The Proposed Scheme will provide a safe and accessible environment for its users whilst considering those passing along its frontages. There is no significant increase in traffic movements during the operational stage and therefore no anticipated impact on the general public, including pedestrians and cyclists passing along the Site frontage.
- 5.186 Traffic flow increases owing to the construction are currently unknown. However, considering that the Site has the potential for construction access to be taken directly from the A5067 or via routes that already form part of University’s routes for general servicing and maintenance or have recently been used by other recent developments. Furthermore, construction activity will satisfy the appropriate Local Authority (as mentioned above) processes during construction that will consider fear and intimidation as a matter of protocol. Therefore, it is unlikely that fear and intimidation will be significant.
- 5.187 Therefore, fear and intimidation is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Changes to road safety as a result of construction and operational traffic on Road Users

- 5.188 The key issue in assessing accidents and safety is the potential for change. There can be some small changes in prevailing road safety conditions arising simply as a result of having a greater number of journeys being made on the network. Considering how travel and the design of the transport network interrelate to affect prevailing road safety is important.
- 5.189 Personal injury collision data for the most recent five year period will be assessed within the Transport Statement (to support a Planning application) to whether any additional traffic is likely to have a detrimental impact on road users on the highway network. The IEMA guidance references collision rates and collision clusters which is considered with “Rule 1” – where traffic flows are likely to increase by 30% or more.
- 5.190 During the operation of the Proposed Scheme, there is unlikely to be a significant increase vehicle traffic movements attracted by the Site – this is largely due to no parking provision being provided for general staff, student use, shoppers to the retail units and visitors to the community unit. Operational vehicle trips are expected to result from servicing and maintenance which is likely to form part of linked trips already on the network (i.e. waste collection and parcel delivery). The Proposed Scheme will provide appropriate provision for walking and cycle connectivity to the existing transport networks that will also encourage a mode change away from motorised vehicles. Any changes to the highway network will undergo the appropriate independent Road Safety Audit process as required by the Local Highway Authority to achieve safe and acceptable improvements to the highway network.
- 5.191 The appropriate Local Authority processes will be complied with during construction which includes production of a Construction Traffic Management Plan, application for temporary closure of roads and footways, hoarding licenses, etc. along with the satisfaction and discharge of Planning conditions appropriate to site working such as working hours. In addition, regulations under the Health and Safety at Work Act will apply to all activity during Construction³⁶.
- 5.192 Therefore, road safety is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Impacts of hazardous loads as a result of construction and operational traffic on Road Users

- 5.193 The Proposed Scheme is not expected to generate or attract hazardous or abnormal loads during either operation or construction. All apparatus and materials for transport to the Site during construction are expected to be transported within maximum legal vehicle dimensions for UK roads.
- 5.194 Therefore hazard loads is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Limitations and Assumptions

- 5.195 To ensure transparency within the EIA process, the following limitations and assumptions have been identified:

³⁶ UK Government (1974) Health and Safety at Work Act. Available at: [Health and Safety at Work etc. Act 1974 \(legislation.gov.uk\)](https://www.legislation.gov.uk/ukpga/1974/75/section-1) [Accessed: 26 July 2024].

- 5.196 This Chapter has been written with the information available at the time of writing.
- 5.197 Construction traffic movements are unknown, however have been considered using experience of other similar schemes. It is assumed that both operational and construction traffic will not exceed the 30% of the average daily movement along Higher Cambridge Street or Cavendish Street (DfT Site 81152).
- 5.198 No consultation or pre-application discussion have taken place to inform the work to date. The Applicant intends to engage with the relevant stakeholders as part of the scheme development and application process.
- 5.199 The Proposed Scheme is anticipated to be developed in two phases. There is potential to take construction access to the Site directly from Higher Cambridge Street, at a location immediately north of the southbound bus stop fronting the Site, subject to Local Authority approval. It is not anticipated that bus stops will be affected.
- 5.200 It is assumed that the wide footway fronting the Site on Higher Cambridge Street can be narrowed to accommodate a Hoarding line whilst still achieving a comfortable width for pedestrians and wheelers to pass.
- 5.201 A Transport Statement and Travel Plan will be produced to support a planning application under the Town and country Planning Act 1990 (subject to Local Authority confirmation), the scope of which will be discussed with the Local Highway Authority.

Lighting

Technical Baseline

- 5.202 There are some lighting installations on-site, associated with the existing Cambridge Halls building / use as a student accommodation. In the surrounding area, there is street lighting along the A5067 Higher Cambridge Street (to the west) and Lower Chatham Street (to the east), where there will also be lighting associated with vehicles using these roads. The surrounding developments (in particular, the nearby student accommodation and retail stores) will also produce some lighting from external lighting and interiors being lit.
- 5.203 Given the City Centre location of the EIA Boundary, it is likely the area surrounding the EIA Boundary would be classified as an E4 Environmental Zones (high ambient brightness) lighting environmental zone³⁷, which would result in some light spill onto the unlit Site.

Effects Unlikely/Not Significant

- 5.204 The following effects are considered unlikely to be significant and therefore will not be considered further within the EIA or reported in the ES. A factual evidence base has been provided below to support this. Where mitigation has been used to inform this judgement, the identified mitigation has been captured within the Preliminary Environmental Management Plan (PEMP) provided in **Appendix 2.1**.

³⁷ NLIPI (2007). What are lighting environmental zones? Available at: <https://www.lrc.rpi.edu/programs/NLPIP/lightingAnswers/lightPollution/environmentalZones.asp> [Accessed 24/07/2024].

Disturbance due to obtrusive light during construction [nearby residents]

- 5.205 Light pollution (or obtrusive light) comprises any adverse effects of artificial lighting including glare³⁸, light trespass³⁹/spill⁴⁰ and sky glow⁴¹, occurring as a result of temporary construction activities associated with the Proposed Scheme. The nature of the effect and its significance is relative to the existing baseline conditions (i.e. lighting environment experienced by existing receptor) and general proximity to potential light sources, where the greatest effect is felt by receptors adjacent to, or in close proximity to a light source (i.e. within 50m).
- 5.206 Lighting will be required during construction activities in order to provide a safe working environment, however this will be within the context of a high brightness City Centre area. Nonetheless, potential adverse effects arising from temporary construction 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 129'⁴² and BS EN 12464-2:2014⁴³, incorporated as part of a CEMP. 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 GN01⁴⁴;
 - Illuminance levels arising from temporary lighting to be designed in accordance with BS EN 12464-2: 2014 and CIE 129;
 - 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 GN01, 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).

³⁸ The uncomfortable brightness of the light source against a dark background which results in dazzling the observer, which may cause nuisance to a specific receptor.

³⁹ The spilling of light beyond the boundary of a property, which may cause nuisance to others.

⁴⁰ The unwanted spillage of light onto adjacent areas which may affect sensitive receptors (particularly residential properties and ecological sites).

⁴¹ The direct upward spill of light into the sky, which can cause a glowing effect and is often seen above cities when viewed from a dark area.

⁴² CIE - Technical Report Document 129 (1998) Guide for Lighting Exterior Work Areas.

⁴³ British Standards (2014) BS EN 12464-2 – Lighting of Work Places – Part 2: Outdoor Work Places.

⁴⁴ Institute of Lighting Professionals (ILP) (2021) Guidance Notes for the Reduction of Obtrusive Light (GN01).

- 5.207 These tertiary mitigation measures will be identified within the CEMP to be adopted and continually managed as part of the EMP. This is considered to be an integral part of the Proposed Scheme and will be submitted to MCC by the contractor, for approval prior to commencement of construction activities.
- 5.208 Given the above, disturbance to nearby residents due to obtrusive light during construction is considered unlikely to be significant and will not be considered further in the EIA or reported in the ES.

Disturbance to residential receptors due to obtrusive light during operation [nearby residents]

- 5.209 Operational lighting will be required for the Proposed Scheme to ensure a safe environment. However, obtrusive operational lighting can have adverse effects on sensitive receptors (principally in relation to nuisance to residents) located in close proximity to the EIA Boundary).
- 5.210 The nearest residential / student accommodation properties are located to the west of the EIA Boundary along the A5067 Higher Cambridge Street (the closest at circa 14m). In addition, there are also further residential receptors located along Cavendish Street to the west.
- 5.211 Obtrusive light can be avoided through appropriate lighting design in line with best practice, guidance and standards, including but not limited to: ILP's PLG04⁴⁵; ILP Guidance Note GN01⁴⁶; British Standard 5489-1:2020⁴⁷; BS EN 13201-2 – Road lighting⁴⁸, and BS EN 12464-2 – Lighting of Work Places⁴⁹. 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).
- 5.212 Overall, when considering the City Centre location and baseline lighting, disturbance to residents due to obtrusive light during operation are considered unlikely to be significant and will not be considered further in the EIA or reported in the ES.

Major Accidents and/or Disasters

Technical Baseline

- 5.213 The EIA Boundary does not fall within any consultation distances for which the Health and Safety Executive (HSE) needs to be consulted for.
- 5.214 There are seven Control of Major Accident Hazard (COMAH) sites⁵⁰ within 3 miles of EIA Boundary as follows:

⁴⁵ Institute of Lighting Professionals (ILP) PLG04 Guidance on Undertaking Environmental Lighting Impact Assessment (2013)

⁴⁶ ILP Guidance Note 01/21 The Reduction of Obtrusive Light (2021)

⁴⁷ British Standard (2020). 5489-1:2020 Design of road lighting. Lighting of roads and public amenity areas. Code of practice.

⁴⁸ BS EN 13201-2:2015 Road Lighting Performance Requirements (2016)

⁴⁹ BS EN 12464-2:2014 Light and Lighting – lighting of work places. Outdoor work Places (2014)

⁵⁰ Public information on establishments subject to COMAH 2015.

- Evonik Chemicals Limited, a lower tier COMAH site. Activities at this site include chemical manufacture/production and/or disposal (general);
- Tennants Distribution Limited, a lower tier COMAH site. Activities at this site include chemical installations (distribution);
- Valero Logistics UK Limited, an upper tier COMAH site. Activities include fuel storage or distribution;
- Calor Gas Limited, a lower tier COMAH site. Activities include fuel storage or distribution;
- Kinaxia Logistics and Fulfillment Limited, a lower tier COMAH site. Activities include wholesale and retail storage and distribution (excluding fuel);
- GXO Logistics UK Limited, an upper tier COMAH site. Activities at this site include chemical installations (storage / warehousing); and
- L'Oreal UK Limited, a lower tier COMAH site. Activities include wholesale and retail storage and distribution (excluding fuel).

5.215 None of the above listed COMAH sites are located within 1km of the EIA Boundary.

Effects Unlikely/Not Significant

- 5.216 The following effects are considered unlikely to be significant and therefore will not be considered further within the EIA or reported in the ES. A factual evidence base has been provided below to support this. Where mitigation has been used to inform this judgement, the identified mitigation has been captured within the Preliminary Environmental Management Plan (PEMP) provided in **Appendix 2.1**.
- 5.217 As detailed within Schedule 4, Paragraphs 5 and 8 of the EIA Regulations, there is the requirement to consider the risk of major accidents and/or disasters relevant to the Proposed Scheme.
- 5.218 Although there is the potential for a wide range of major accidents and disasters that could occur, the probability, likelihood and frequency is very low, often due to the management of a risk under established legislative requirements or during the design process.
- 5.219 The EIA Regulations do not specify the need for the consideration of natural disasters; however, for completeness these have been considered.
- 5.220 The probability, frequency and likelihood of natural disasters arising from climatic occurrences (i.e. hurricanes) are considered to be very low due to the natural climatic condition of the UK within the global climate system. Specific geological events (e.g. earthquakes, tsunamis, volcanic incidents) are also considered to be very low due to the general absence of required geological conditions (i.e. area of tectonic plate interaction) within or in close proximity to the UK. Although earthquakes have occurred within the UK, the magnitude of such events has generally been low.
- 5.221 Following a qualitative appraisal of major accidents and/or disasters that were relevant to the Proposed Scheme, the following have been considered further and are presented in

Table 5.1. Based on the evidence provided within **Table 5.1**, the likelihood of events with a significant consequence is considered to be low/unlikely and will not be considered further in the EIA or reported in the ES.

Table 5.1: Appraisal of major accidents and/or disasters

Major Accidents and/or Disasters	Appraisal
A major accident caused by ground subsidence and associated structural/building collapse	All earthworks and foundation design will be in accordance with relevant industry guidance, including but not limited to CIRIA Report C572: Treated ground engineering properties and performance ⁵¹ , British Research Establishment document FB75: Building on Fill - Geotechnical Aspects ⁵² and British Standard 6031:2009: Code of Practice for Earthworks ⁵³ , thereby negating the probability and likelihood of any significant effect.
Major flood event caused by an extreme weather event	As described under 'Flood Risk and Drainage', the EIA Boundary is largely located within Flood Zone 1 and overall, it was concluded that the risk of flooding is not considered to be significant (due to the surface water drainage strategy).
Major accidents on the local road network	The risk of accidents on the road network is considered under 'Traffic and Access' above. The management of the road network and the enforcement of stringent safety standards reduce the risk, both in terms of the frequency and likelihood to a low level.
Accidents arising from fire, arson, vandalism or terrorism	The risks associated with technological failures and accidents will be reduced through appropriate design of the Proposed Scheme, including the use of fire alarms. Targeted acts of vandalism, arson or terrorism cannot be fully mitigated, but the adoption of appropriate security measures at the construction and operational stages, such as security lighting and on-site security, will help to minimise the likelihood of such events occurring. 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 Safety, 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.

⁵¹ CIRIA (2002). Report C572: Treated ground engineering properties and performance.

⁵² British Research Establishment (2015). FB75: Building on Fill - Geotechnical Aspects. 3rd Edition.

⁵³ British Standard (2009). 6031:2009: Code of Practice for Earthworks.

Major Accidents and/or Disasters	Appraisal
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Given this, the potential risks will be very low.

Major accident as a result of UXOs	The risk of UXO is considered under 'Ground Conditions and Contamination', which concludes the risk is not significant.
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- 5.222 Based on the evidence provided within **Table 5.1**, effects related to the risk of major accidents and/or disasters are not considered to be significant and will not be assessed within the EIA or reported on in the ES, albeit greater detail on the control measures in place will be provided.

Waste

Technical Baseline

- 5.223 The EIA Boundary currently comprises the existing Cambridge Halls building and there is likely to be existing waste generating uses on-site associated with the student accommodation use.

Effects Unlikely/Not Significant

- 5.224 The following effects are considered unlikely to be significant and therefore will not be considered further within the EIA or reported in the ES. A factual evidence base has been provided below to support this. Where mitigation has been used to inform this judgement, the identified mitigation has been captured within the Preliminary Environmental Management Plan (PEMP) provided in **Appendix 2.1**.

Waste generation during demolition and construction [waste facilities]

- 5.225 Sources of waste during the construction stage are assumed to relate to demolition materials from the demolition of the existing buildings on-Site; excavation for the small basement; and construction materials (including packaging). If required, the remedial solution may require removal of hazardous substances⁵⁴ 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.
- 5.226 Any waste considered to be hazardous, arising from demolition or remedial activities, will be handled, processed and removed from the site by suitability qualified contractors, all being undertaken in line with The Hazardous Waste (England and Wales) Regulations 2005.
- 5.227 It is anticipated that generic waste produced during demolition and construction would be controlled through the implementation of a CEMP, secured by planning condition. The CEMP will be informed by the waste provisions of the Environmental Protection Act 1990⁵⁵ and the Environmental Protection (Duty of Care) Regulations 1991⁵⁶ and will set out the principles

⁵⁴ The Hazardous Waste (England and Wales) Regulations 2005, No. 894.

⁵⁵ Environmental Protection Act 1990 No. 43 Available at:

<https://www.legislation.gov.uk/ukpga/1990/43/contents>

⁵⁶ 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>

and legal requirements relating to waste, including any hazardous waste that is encountered and required to be exported off-site for disposal.

- 5.228 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.
- 5.229 Therefore, waste generated during demolition and construction is considered unlikely to be significant and will not be considered further in the ES.

Waste generated during operation [waste facilities]

- 5.230 Waste generated during the operational stage is anticipated to include generic waste streams arising from the residents.
- 5.231 British Standard (BS) 5906:2005 Waste Management in Building – Code of Practice suggests that the weekly waste arisings from an ‘domestic’ use is equal to the number of dwellings x [(70 litres x average number of bedrooms) + 30]. On this basis, the Proposed Scheme would be considered to generate approximately 260,000 litres (l) (circa 260m³) a week, approximately 13,520,000 l (circa 13,520m³) per annum (assuming 52 weeks per year). It should be noted that this does not take account of any waste arising reused, recycled or diverted from landfill by another means. British Standard (BS) 5906:2005 Waste Management in Building – Code of Practice suggests that the weekly waste arisings from a ‘shopping centre’ (used to represent the commercial / amenity aspect of the Proposed Scheme) is equal to volume per m² of floor area [10L] x floor area, which gives a prospective weekly waste of 4,500 l (4.5m³) or 234,000 l per annum (234m³). Overall, this gives the Proposed Scheme a weekly waste arising of 264,500 l (264.5m³), and an annual waste arising of 13,754,000 l (13,754m³).
- 5.232 Nevertheless, the Proposed Scheme will be 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. In addition, it is assumed that all waste storage/handling facilities will be designed in accordance with British Standard (BS) 5906:2005 Waste Management in Building – Code of Practice. The Application will include a Waste Management Strategy which will set out the principles, strategy and targets for the management and storage of waste and maximise recycling, in accordance with MCC established policy.
- 5.233 Therefore, effects related to operational waste are considered unlikely to be significant and will not be considered further in the ES.

6. Townscape and Visual

Technical Baseline

- 6.1 The EIA Boundary is not located within an area covered by a townscape designation, nor does it lie within or near to any conservation areas. The nearest conservation area is the Whitworth Conservation Area which lies approximately 490m to the northeast of the EIA Boundary beyond the Mancunian Way. A number of listed buildings are located in relatively close proximity to the EIA Boundary, including Former Manchester Ear Hospital, Roman Catholic Church of St Augustine, Ormond Building, Righton Building, Grosvenor Building and Former Town Hall Façade to Mabel Tylecote Building. These listed buildings are generally focused to the east of the EIA Boundary and set around the edge of All Saints Park, a key area of public open space within the university campus. The full extent of designations, relevant to townscape value in the local area are illustrated on the Designations Plan provided at **Figure 6.1**.
- 6.2 The EIA Boundary and its study area are identified by Natural England as lying within National Character Area (NCA) 55 – The Manchester Conurbation.
- 6.3 The NCA covers a vast expanse of urban areas and includes a number of settlements which have grown and come together to form the Manchester conurbation including Manchester City Centre, Salford, Stockport, Sale, Ashton-under Lyne, Swinton, Altrincham, Stretford, Prestwich, Cheadle Hulme, Denton and Droylsden.
- 6.4 The EIA Boundary lies within an urban townscape setting and reflects the identity of the urban characteristics described above. The EIA Boundary and its immediate setting are urban, and PBSA uses are typical of this character area.
- 6.5 As part of the evidence base to the Local Development Framework, MCC prepared an urban characterisation study⁵⁷ to identify the varied character across the city. The study sets out the historical evolution of the city, identifies broad character areas before describing the underlying natural form, urban form as well as use, activity and movement for each area.
- 6.6 An Extract from the Strategic Level City-Wide Urban Characterisation for Core Strategy (November 2010) is included in **Figure 6.2**, the location of the EIA Boundary is indicated as a red dot.
- 6.7 The EIA Boundary is situated within the 'Central Area for Change' Strategic Character Area and within the northwestern portion of the "Higher Education Precinct (HEP)".
- 6.8 The EIA Boundary sits within an area that is predominantly characterised by the university buildings and associated ancillary uses. The townscape of the northern and eastern portion of the surrounding townscape comprises of a large regular grid arrangement traversed by the Mancunian Way and permeated with pedestrianised routes, public realm and urban squares including All Saints Park. The buildings throughout this area comprise of grand institutional buildings, and more domestically scaled civic and commercial buildings. To the

⁵⁷ John Whyard (November 2010) Local Development Framework: Strategic Level City -Wide Urban Characterisation for Core Strategy .

west is the residential area of Hulme, characterised by a generally finer urban grain with rectilinear blocks defined by narrow residential streets arranged in a grid pattern; this portion of the townscape is predominately residential terraces in small scale plots. This area is traversed by Princess Street, a key commuter road into the city which lies in cutting.

- 6.9 In order to define townscape character receptors at a scale appropriate to the EIA Boundary and surrounding context, a townscape character assessment has been undertaken as part of the baseline townscape assessment. This identified local townscape character areas (TCAs) in the area surrounding the EIA Boundary.
- 6.10 The TCAs are local areas of townscape which share common qualities and characteristics and provide a finer grained analysis to that set out in the Strategic Level City-Wide Urban Characterisation for Core Strategy (November 2010) and the National Landscape Character Assessment. In this process, local level changes in characteristics that relate to physical elements or features and historic development, alongside how a place is experienced, have been considered. The TCAs are largely characterised by the mix of land uses and scale of existing development.
- 6.11 The Townscape Study Area (**Figure 6.3**) for assessment of potential impacts of the Proposed Scheme on townscape character has been defined as the area within 500m radius from the centre of the EIA Boundary. This is the area within which the Proposed Scheme has the potential to have a significant direct or indirect effect on townscape character. Although the Proposed Scheme would be visible from some townscape areas beyond 500m from the EIA Boundary, it would be a background feature and at this distance would not significantly alter the key characteristics or character of the townscape itself.
- 6.12 Within the Townscape Study Area, two TCAs which share common features and characteristics have been identified. These TCAs are illustrated at **Figure 6.3** and listed below:
- TCA1 – Universities Area; and
 - TCA2 – Hulme Residential Area.
- 6.13 Views and visual amenity within the setting of the EIA Boundary are urban in character and generally contained by surrounding built form of varying heights and style.
- 6.14 The visibility of the EIA Boundary and potential extent of visibility of the Proposed Scheme has been informed by initial Zone of Theoretical Visibility Mapping (ZTV) (**Figure 6.4**). The building heights used for the ZTV view-testing were based on preliminary heights of the proposed towers provided by the architects in November 2024 which included two distinct plots and building heights ranging from 8 to 30 storeys. The deviation between the heights and max parameters in **Chapter 4** are small and therefore the ZTV is still considered a suitable representation of the possible visibility of the Proposed Scheme.
- 6.15 The ZTV demonstrates that the greatest change to views would be experienced from those streets located close to the EIA Boundary and some key public spaces/ pedestrian routes within and around this part of the City.
- 6.16 The ZTV also demonstrates that the Proposed Scheme would be visible in long distance views towards the City Centre from roads and public spaces at distances of 2km or more. However,

in distances greater than 1km from the EIA Boundary, the Proposed Scheme would form a small or very small element in the background of the view and would form part of a wider panorama of the City Centre which is already characterised by modern tall buildings. As such, at distances of over 1km from the EIA Boundary the changes to views and visual amenity resulting from the Proposed Scheme would result in only a small or very small change to the character and appearance of the view and therefore not likely to result in significant visual effects. An area 1km radius from the EIA Boundary (**Figure 6.3**) was therefore identified as a suitable study area for the visual impact assessment (the Visual Study Area).

- 6.17 The following townscape and visual receptors within the townscape and visual study areas have been identified as having potential to be affected by the Proposed Scheme:

Townscape receptors (500m Study Area)

- TCA1 – Universities Area
- TCA2 – Hulme Residential Area

Visual receptors (1km Study Area)

- Open Space Users in All Saints Park
- Open Space Users on the Pedestrianised area of Chatham Street
- Users of the Pedestrian Bridge over the Mancunian Way
- Users of the Pedestrian and Cycle Routes at the Medlock Street roundabout
- Users of the Pedestrian Bridge over the Princess Road
- Users of the routes travelling towards the EIA Boundary from the east (Oxford Road and Grosvenor Street)
- Users of the routes travelling towards the EIA Boundary from the South (Princess Road)
- Users of the routes travelling towards the EIA Boundary from the west (Stretford Road, Bonsall Street, Loxford Street, and Boundary Lane)
- Users of Cambridge Street
- Residents of the Student Accommodation located adjacent the western site boundary
- Users of the Mancunian Way.

- 6.18 In order to illustrate the effects on views experienced by the identified visual receptors, a series of Representative Viewpoints (RVs) have been identified and the locations are set out in **Figure 6.5**. The RV locations have also been overlaid onto the ZTV on **Figure 6.6**. The location of RVs has been reviewed in correspondence with Heritage Consultants from Turley Heritage and officers at MCC. **Table 6.1** provides a list of the RVs, identifies the type of visualisation that will be prepared to inform the assessment and provides commentary on why the views have been chosen and the visual receptor they represent.

Table 6.1: Representative Viewpoint Locations

Number	Location	Visualisation Type	Commentary
RV1	All Saints Park	Type 4: Rendered photomontage	Representative of open space users in All Saints Park and TCA 1
RV2	Pedestrianised area of Chatham Street	Type 4: Rendered photomontage	Representative of users of Open Space Users on the Pedestrianised area of Chatham Street and TCA 1
RV3	Pedestrian Bridge over the Mancunian Way	Type 4: Photowire	Representative of Users of the Pedestrian Bridge over the Mancunian Way This RV will also be used to demonstrate the views experienced by the road users of the Mancunian Way
RV4	Pedestrian and Cycle Routes at the Medlock Street roundabout	Type 4: Photowire	Representative of Users of the Pedestrian and Cycle Routes at the Medlock Street roundabout and TCA 1 This RV will also be used to demonstrate the views experienced by the road users of the Mancunian Way
RV5	Pedestrian Bridge over the Princess Road	Type 4: Photowire	Representative of Users of the Pedestrian Bridge over the Princess Road and TCA 2
RV6.1	Oxford Road	Type 4: Rendered photomontage	Representative of Users of the routes travelling towards the EIA Boundary from the from the east and TCA 1
RV6.2	Grosvenor Street	Type 4: Rendered photomontage	Representative of Users of the routes travelling towards the EIA Boundary from the from the east and TCA 1
RV7	Princess Road	Type 4: Photowire	Representative of Users of the routes travelling towards the EIA Boundary from the from the South (Princess Road)
RV8	Stretford Road	Type 4: Rendered photomontage	Representative of Users of the routes travelling towards the EIA Boundary from the from the west (Stretford Road, Bonsall Street, Loxford Street, and Boundary Lane) and TCA 2
RV9.1	Cambridge Street	Type 4: Rendered photomontage	Representative of Users of Cambridge Street

Numb er	Location	Visualisation Type	Commentary
RV9.2	Cambridge Street	Type 4: Rendered photomontage	Representative of Users of Cambridge Street

Proposed Scope of Assessment

- 6.19 The below sets out the proposed scope of assessment based on an understanding of the characteristics of the EIA Boundary and surrounding area (within the respective Townscape Study Area and Visual Study Area), the Proposed Scheme (**Chapter 4**) and analysis of the ZTV plan **Figure 6.5** and **6.6**. Where environmental effects are considered unlikely to be 'significant', an appropriate evidence base has been provided to justify the 'scoping out' of these effects ensuring the EIA and ES only assess those effects considered 'likely' to be significant, at this stage.

Effects Unlikely/Not Significant

- 6.20 The following effects are considered unlikely to be significant and therefore will not be considered further within the EIA or reported in the ES. A factual evidence base has been provided below to support this. Where mitigation has been used to inform this judgement, the identified mitigation has been captured within the Preliminary Environmental Management Plan (PEMP) provided in **Appendix 2.1**.
- 6.21 Whilst effects considered unlikely to be significant will not be reported in the ES, a standalone Townscape and Visual Impact Assessment (TVIA) report will be prepared as an appendix to the ES to document the effects for all the townscape and visual receptors (i.e including all likely effects – both significant and insignificant).

Changes to townscape and visual environment during demolition and construction [all townscape and visual receptors]

- 6.22 During the construction stage of the Proposed Scheme, gradual and temporary changes to the townscape and visual environment will occur due to further enclosure of the EIA Boundary with hoardings/fencing; presence of material stockpiles; movement of plant and other construction vehicles; the presence and use of tower cranes; and the progressive construction of elements present within the EIA Boundary. Many development sites are under construction in the City Centre of Manchester and construction sites are a common characteristic of the urban environment. The general townscape and visual effects associated with the demolition and construction stage would be characteristic of the EIA Boundary's City Centre location in an area experiencing widespread renewal with associated large-scale demolition and construction activities.
- 6.23 In general terms, and based on professional experience and judgement, the demolition and construction effects of the Proposed Scheme would be no greater in size or scale or geographical extent than that expected at the operational stage but would be of temporary duration. The effects on townscape and visual receptors during the construction stage are likely to be generally perceived as adverse in contrast to the effects following completion which are likely to be beneficial or neutral. This is due to the incomplete nature of buildings during the construction stage, the presence and operation of construction activities and

temporary structures and the increased noise, traffic and dust associated with the construction works. These effects would be managed and mitigated through measures set out in the CEMP (further detailed elsewhere in this EIA Scoping Report) including the use of site hoardings installed on the perimeter of the EIA Boundary prior to construction, management of construction traffic and control of working hours. Due to these confirmed mitigation measures, the temporary nature of construction works and the current baseline of the EIA Boundary, which is influenced by ongoing construction works, the perceived changes to townscape character and visual amenity are not likely to be significant.

Changes to townscape character of: TCA1 – University Buildings, Living and Ancillary Uses; and TCA2 – Hulme Residential Area during operation

- 6.24 The EIA Boundary lies within TCA1 and there would be direct effects on TCA1 as a result of the Proposed Scheme. However, TCA1 is not considered to be an area of high townscape sensitivity. The Proposed Scheme for university student accommodation would be consistent with the existing land use and prevailing character of the area and concentration of university facilities. The EIA Boundary would also form a small portion of the overall townscape, and whilst the Proposed Scheme would introduce further height, due to the built-up nature of the City Centre and the elevated Mancunian Way there is limited intervisibility between the Proposed Scheme and the remaining townscape to the north and east.
- 6.1 There would be no direct effect on the townscape character or townscape features of TCA2, and indirect effects on townscape character arising from visibility of the Proposed Scheme would not be sufficient to change the key characteristics or prevailing townscape character of these areas. This is due to the enclosure of this character area by the existing built form, the distance of the EIA Boundary from this area and by the existing presence of taller buildings in the background context of this area.
- 6.2 Therefore, changes to townscape character (TCA1 and TCA2) due to the introduction of the Proposed Scheme are not considered to be significant.

Changes to visual environment for visual receptors beyond 1km from the EIA Boundary

- 6.3 The Proposed Scheme would be visible from some viewpoints beyond 1km, as demonstrated by the ZTV plan provided at **Figure 6.4**. However, within such views it would appear as a small element in the background of the view, seen alongside other built form in the City Centre of a similar scale and character. The ZTV also shows there are extensive areas beyond 1km where no visibility is expected. Where visibility is indicated it is generally from roads or areas of open space where the Proposed Scheme would be read as part of the wider city skyline to the background of views. The Proposed Scheme would not significantly alter the character, quality or amenity of these long-distance views and the effect would therefore not be considered as significant.

Changes to visual environment for some visual receptors within 1km of the EIA Boundary during operation [listed below]

- 6.4 Effects are not considered significant on the visual receptors listed below as the receptors are not of high sensitivity and the Proposed Scheme would: be partially obscured; occupy a small extent of the views; and/or, would be read in context with surrounding features of a similar character and/or appearance and would not significantly change the character or quality of the view. The identification of these receptors has been supported by the ZTV set out in **Figure 6.4** which shows restricted or limited visibility indicated in these areas due to

built form of the intervening townscape (this was further verified by site survey work). The changes as a result of the Proposed Scheme would not result in a significant change to the quality or appearance of the views experienced by the following visual receptors:

- Open Space Users on the Pedestrianised area of Chatham Street;
- Users of the Pedestrian Bridge over the Mancunian Way;
- Users of the Pedestrian and Cycle Routes at the Medlock Street roundabout;
- Users of the Pedestrian Bridge over the Princess Road;
- Users of the routes travelling towards the EIA Boundary from the east (Oxford Road and Grosvenor Street);
- Users of the routes travelling towards the EIA Boundary from the South (Princess Road);
- Users of the routes travelling towards the EIA Boundary from the west (Stretford Road, Bonsall Street, Loxford Street, and Boundary Lane);
- Users of Cambridge Street; and
- Users of the Mancunian Way.

6.5 Therefore, the effect on visual amenity of the above visual receptors is not considered to be significant.

Changes to private visual amenity due to the introduction of the Proposed Scheme during operation [private residential places]

6.6 In most townscape and visual assessments, unless specifically requested by the LPA (and in accordance with guidelines contained within GLVIA3⁵⁸), assessment of visual impacts is restricted to potential impacts on the visual amenity of publicly accessible places. Assessment of effects on views from private residential properties is not undertaken unless there is potential for the residential visual amenity of the property to be affected. For residential properties beyond 25m from the EIA Boundary, residential amenity is unlikely to be affected given the urban context of the EIA Boundary where views of large scale-built form are part of the existing visual experience and separation distances of over 50m from the EIA Boundary would prevent development being considered overly dominant or overbearing.

6.7 To the west of the EIA Boundary (at a distance of approximately 18 - 20m) there are several blocks of student accommodation with occupied rooms overlooking the EIA Boundary. Residents of this accommodation would experience a change from the existing view as a result of the Proposed Scheme. However, the massing of the Proposed Scheme on the western boundary for the EIA Boundary would reach a maximum of 5 storeys, which aligns with the existing built form of the existing Cambridge Halls. The taller elements of the Proposed Scheme are focused to the eastern boundary of the EIA Boundary, circa 45 - 50m

⁵⁸ Landscape Institute and the Institute of Environmental Management and Assessment (2013) Guidelines for Landscape and Visual Impact Assessment (GLVIA), 3rd Edition

from the adjacent student accommodation. This is a sufficient distance to prevent the buildings having an overbearing effect or harming the residential visual amenity of residents.

- 6.8 Therefore, changes to private visual amenity of surrounding residential visual receptors are unlikely to be significant and will not be considered further within the EIA or reported in the ES.

Effects Likely/Significant

- 6.9 **Table 6.2** outlines the effects (and associated receptor[s]) that are considered to be likely and significant and therefore will be assessed within the EIA and reported in the ES. Representative view associated with each of the receptors are also identified in the table and the effect of the proposals on these will also be considered within the assessment.

Table 6.2: Potential Likely Significant Effects and Sensitive Receptors

Effect	Receptor(s)	Applicable Stage(s)
Changes to visual amenity	Open Space Users in All Saints Park (Representative view 1)	Operation

Assessment Methodology of Effects Likely/Significant

- 6.10 The following background surveys/studies have been/will be completed.

Table 6.3: Background Surveys/Studies

Survey/Study/Analysis/ Evaluation	Overview	Date of Completion
Completed		
Zone of Theoretical Visibility (ZTV)	Modelling of ZTV based on maximum anticipated height of Proposed Scheme (see note at Paragraph 6.14).	June 2024
Initial desktop Baseline Townscape and Visual Appraisal (findings as set out above)	Initial desktop appraisal of the site and study area to identify baseline situation of townscape and visual receptors	June 2024
Site visit	The site visit recorded the EIA Boundary and surrounding context's townscape features and verified the key visual receptors identified in the desk study. It involved travelling through the study area and producing a working photographic record of the area.	June 2024
Pending		

Survey/Study/Analysis/ Evaluation	Overview	Date of Completion
Preparation of verified views	Capturing of surveyed photography and preparation of survey verified photomontage (rendered) and wireline visualisations.	February 2025
Townscape and Visual Impact Assessment	Standalone report documenting the baseline townscape and visual conditions and an assessment of effects on all townscape and visual receptors as a result of the Proposed Scheme. This will be appended to the ES.	February-March 2025

6.11 The following methodology for the assessment of townscape and visual effects is proposed:

- The assessment methodology is drawn from the Guidelines for Landscape and Visual Impact Assessment (GLVIA), 3rd Edition⁵⁹. The detailed of the methodology is set out in **Appendix 6.1** and is to be agreed with the Design/Conservation Officers at MCC;
- The assessment of effects will be based on the deviation from the current baseline conditions of the existing townscape character and visual receptors of the EIA Boundary and the surrounding area established through the baseline Townscape and Visual Appraisal;
- A standalone TVIA report will be prepared as an appendix to the ES to inform the assessment process, determine which effects on receptors will be significant and document the assessment of both significant and non-significant effects. The visual assessment will be supported by an assessment of representative views, to assist with the interpretation of the effects on visual receptors;
- Visualisations of the Proposed Scheme will be prepared for all of the above representative viewpoints. These will be used to inform the assessment of effects on the identified townscape and visual receptors within the standalone TVIA which will form an appendix to the ES chapter on townscape and visual effects. Some of the representative views will also be used to support the assessment of effects for the receptors with significant effects considered in the ES chapter on Townscape and Visual effects;
- Representative viewpoint photography with visualisations of the Proposed Scheme will be prepared to support the ES and TVIA appendix. These will be prepared in accordance with the Landscape Institutes Technical Guidance Note 06/19⁶⁰. Both GLVIA3 and the Technical Information Note 06/19 recommend a proportionate approach to the assessment of views and type of supporting visualisation required, in

⁵⁹ Landscape Institute and the Institute of Environmental Management and Assessment's Guidelines for Landscape and Visual Impact Assessment (GLVIA), 3rd Edition

⁶⁰ Landscape Institute (2019) Technical Guidance Note 06/19 on the Visual Representation of Development Proposals

relation to the scale of development proposed and the sensitivity of the visual receptors.

- The Proposed Scheme will be considered, along with an assessment of the 'sensitivity' of the identified townscape character receptor or visual receptor. This will be determined by establishing the 'value' of the townscape or view and 'susceptibility to change' of the receptor in relation to the Proposed Scheme. Following this, the potential magnitude of 'change' from the baseline conditions as a result of the Proposed Scheme is predicted and assessed. The methodology and approach in undertaking this impact assessment is based upon informed and reasoned professional judgement, taking into account a combination of quantitative and qualitative factors; and
- The assessment of likely significant effects to sensitive receptors will consider the sensitivity of the receptor (on a scale of high, medium, low and negligible) and the magnitude of change (on a scale of large, medium, small and negligible) to determine the level of effect on a scale of major, moderate, minor and negligible. Significant effects will be determined following this through professional judgment.

Limitations and Assumptions

6.12 To ensure transparency within the EIA process, the following limitations and assumptions have been identified:

- In considering the effects of the Proposed Scheme upon the townscape character areas and visual receptors, the assessment will be based on the detailed layout plans submitted for approval, the visualisations of the Proposed Scheme and the information on the Proposed Scheme contained within the development specification in the ES. This approach will allow for a balanced assessment that considers all the relevant material and allows for judgements to be made on design quality and associated mitigation measures;
- In regard to the visual assessment, the assessment will not attempt to predict the visual effects of seasonal changes throughout the year, or the difference between day and nighttime effects, but describes the 'worst case' position in terms of the view when the Proposed Scheme would be most visible i.e. daytime views in the winter (when trees would have lost their leaves); and
- Whilst a selection of RVs will be provided and further evaluation of the kinetic experience of visual receptors will be undertaken, not every available view within the study area will be illustrated and professional judgement will be used to assess the effects of the Proposed Scheme and when defining effects which are and are not significant.

7. Built Heritage

Technical Baseline

Summary of Historic Context

- 7.1 The EIA Boundary is located in Chorlton on Medlock, an urban area to the south of Manchester City Centre. The area has medieval origins and principally comprised open farmland around the River Medlock until the late 18th century. From this time and into the 19th century, the area became a focus for intense residential development in the form of terraced rows arranged on a grid plan. The centrepiece of the newly developed area was Grosvenor Square (located to the east of the EIA Boundary) and, within it, All Saints Church.
- 7.2 The EIA Boundary was occupied by rows of terraced housing in the 19th century, during which time Cavendish Street, which bisects the centre of the EIA Boundary, became a key arterial route. The terraces in the southern half of the EIA Boundary were demolished and replaced by Paulden's Department Store in 1879. Other larger public buildings were also built in the vicinity of the EIA Boundary in the late 19th century, replacing earlier terraced housing, including the Ormond and Grosvenor Buildings.
- 7.3 The area suffered extensive bomb damage during the Second World War resulting in the loss of several buildings on Grosvenor Square and many further buildings were demolished during the Postwar period as part of a central programme of slum clearance. The Mancunian Way, part of the Manchester and Salford Inner Ring Road system, was constructed to the north of the EIA Boundary in 1965, disrupting the prevailing street pattern and marking the beginning of widespread redevelopment of this part of the city. The area since became a focus for development in connection with the Manchester Metropolitan University, with existing buildings being converted alongside the construction of new faculty and accommodation buildings. The EIA Boundary itself was cleared to make way for the construction of the extant Cambridge Halls student accommodation building in the 1990s.
- 7.4 The character of the area surrounding the EIA Boundary has been substantially altered, though remnants of the historic townscape survive in a fragmentary form. The historic gridded street pattern has been disrupted by modern development and remains only partially legible. The importance of Cavendish Street has also diminished following the construction of the Mancunian Way and there is no longer vehicular access through the EIA Boundary on this line.

Summary of Heritage Assets

- 7.5 The technical baseline is informed by a 500m study area taken from the boundary of the EIA Boundary. This represents a proportionate study area in relation to the scale and nature of the Proposed Scheme and the potential for effects on built heritage receptors. Within the study area, there are 28 designated heritage assets and 3 non-designated heritage assets, as shown in the Heritage Asset Plan (**Figure 7.1**).
- 7.6 As set out in detail in **Appendix 7.1**, the identified heritage assets include former industrial buildings and structures; offices and other commercial buildings; ecclesiastical buildings; educational buildings; public buildings; public houses; statues; railway stations and associated infrastructure; and historic areas. Most of the assets have a varied, urban setting, are distanced from the EIA Boundary and separated by intervening built form such that the

EIA Boundary makes no contribution to their significance as part of setting. Those assets for which the EIA Boundary makes no contribution to significance and there is no potential for significance to be affected (a total of 22 assets) do not form part of the technical baseline.

7.7 The 9 remaining heritage assets forming part of the technical baseline are:

- Former Manchester Ear Hospital (grade II listed building, HAP no. 8);
- Roman Catholic Church of St Augustine (grade II listed building, HAP no. 26);
- Ormond Building, Manchester Metropolitan University (formerly Municipal Offices) (grade II listed building, HAP no. 15);
- Righton Building (grade II listed building, HAP no. 6);
- Grosvenor Building, Manchester Metropolitan University Faculty of Art and Design (grade II listed building, HAP no. 24);
- Former Town Hall Façade to Mable Tylecote Building, Manchester Metropolitan University (grade II listed building, HAP no. 21);
- Former Grosvenor Picture Palace (grade II listed building, HAP no. 13);
- Adult Deaf and Dumb Institute (former) (grade II listed building, HAP no. 9); and
- The Salutation Public House (non-designated heritage asset, HAP no. 29).

7.8 These heritage assets generally draw significance from the surrounding historic townscape and relationships with neighbouring historic buildings and spaces. In the case of heritage assets to the east of the EIA Boundary on Grosvenor Square, the assets draw significance from their relationship with All Saints Park which formed an integral part of the early development of the area. In all cases, the EIA Boundary is concluded to make a neutral contribution to the significance of the identified heritage assets as part of their setting.

Proposed Scope of Assessment

7.9 The below sets out the proposed scope of assessment based on an understanding of the characteristics of the EIA Boundary, surrounding area and the Proposed Scheme (**Chapter 4**). Where environmental effects are considered unlikely to be 'significant', an appropriate evidence base has been provided to justify the 'scoping out' of these effects ensuring the EIA and ES only assess those effects considered 'likely' to be significant, at this stage.

7.10 Only the nine heritage assets listed above under 'Technical Baseline' have been considered below. This is because the other assets (see **Appendix 7.1**) within the study area have a varied, urban setting, are distanced from the EIA Boundary and separated by intervening built form such that the EIA Boundary makes no contribution to their significance as part of setting. Therefore, the EIA Boundary makes no contribution to significance of these assets and there will be no change in setting as a result of the Proposed Scheme.

Effects Unlikely/Not Significant

- 7.11 The following effects are considered unlikely to be significant and therefore will not be considered further within the EIA or reported in the ES. A factual evidence base has been provided below to support this. Where mitigation has been used to inform this judgement, the identified mitigation has been captured within the Preliminary Environmental Management Plan (PEMP) provided in **Appendix 2.1**.

Change within the setting of designated heritage assets during construction and operation [Former Grosvenor Picture Palace, and Adult Deaf and Dumb Institute (Former)]

- 7.12 The Proposed Scheme will constitute change within the setting of the grade II listed Former Grosvenor Picture Palace and the adjacent grade II listed Adult Deaf and Dumb Institute (Former) in a manner which may affect the heritage significance of these designated heritage assets. It is concluded that the effect is unlikely to be significant for the reasons set out below.
- 7.13 Effects during the demolition and construction stage are likely to cause a temporary reduction in the quality of the setting of the heritage assets as a result of the visual and audial intrusion associated with the proposed demolition works; groundwork excavations; movement of heavy plant, materials and tools; erection of construction infrastructure, e.g. scaffolds, fixed tower cranes, mobile cranes, hoarding, lighting and temporary site accommodation; and the construction of the proposed buildings. The effects of the operational stage are likely to include the permanent change in the character of the setting of the heritage assets from the presence of new built form, operational plant and associated activities.
- 7.14 Such effects are limited by the location of the heritage assets to the east of Oxford Road, their resulting distance from the EIA Boundary and the limited visual or other relationship that these assets have with the EIA Boundary. The heritage assets are also experienced primarily in a series of views that are orientated away from the EIA Boundary, namely views south and east along Cavendish Street and views east from Oxford Road and from within All Saints Park. While the character of views of the assets facing west along Cavendish Street will be affected by the Proposed Scheme, due to the intervening distance and townscape, the change would not be of sufficient nature or scale to diminish the heritage significance of the buildings to an extent that would be considered significant.
- 7.15 Therefore, the change within the setting of the grade II listed Former Grosvenor Picture Palace and grade II listed Adult Deaf and Dumb Institute is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Effects Likely/Significant

- 7.16 **Table 7.1** outlines the effects (and associated receptor[s]) that are considered to be likely and significant and therefore will be assessed within the EIA and reported in the ES.

Table 7.1: Potential Likely Significant Effects and Sensitive Receptors

Effect	Receptor(s)	Applicable Stage(s)
Change within the setting of a designated heritage asset	Former Manchester Ear Hospital; Roman Catholic Church of St Augustine; Ormond Building; Righton Building; Grosvenor Building; and Former Town Hall Façade to Mabel Tylecote Building (all grade II listed buildings)	Construction/Operation
Change within the setting of a non-designated heritage asset	Salutation Public House	Construction/Operation

Assessment Methodology of Effects Likely/Significant

7.17 The following background surveys/studies have been/will be completed.

Table 7.2: Background Surveys/Studies

Survey/Study/Analysis/Evaluation	Overview	Date of Completion
Completed		
Heritage Assessment (partial)	Baseline assessment of the heritage significance of designated and non-designated heritage assets within a 500m study area with the potential to be affected by the Proposed Scheme.	June 2024
Zone of Theoretical Visibility (ZTV) (Figure 6.4)	ZTV mapping prepared within a 1km radius taken from the EIA Boundary to provide an understanding of the potential visibility of the Proposed Scheme.	November 2024
Pending		
Heritage Assessment (full)	Detailed assessment of the heritage significance of designated and non-designated heritage assets within a 500m study area with the potential to be affected by the Proposed Scheme and assessment of the potential impacts of the Proposed Scheme on their significance. This will form a technical appendix to the ES.	February 2025

7.18 In the absence of specific prescribed criteria for assessment of impacts on built heritage for an ES, the methodology informing judgements on the relative value of heritage assets, the magnitude of change and the significance of effect is drawn from the Design Manual for Roads and Bridges (DMRB).⁶¹ The following documents also provide relevant guidance:

- Principles of Cultural Heritage Impact Assessment in the UK⁶²;
- Historic England Advice Note 12 – Statements of Heritage Significance⁶³;
- Historic Environment GPA 2 – Managing Significance in Decision Taking in the Historic Environment⁶⁴;
- Historic England GPA 3 – The Setting of Heritage Assets⁶⁵; and
- Historic England Advice Note 4 – Tall Buildings⁶⁶.

7.19 A 500m Study Area has been used as a guide and basis for identifying heritage assets which may be affected by the Proposed Scheme, taking into account:

- The nature and scope of the Proposed Scheme;
- The proximity of heritage assets to the EIA Boundary;
- The degree of intervisibility between the heritage assets and the EIA Boundary, taking into consideration, for instance, changes in topography as well as interposing townscape and landscape features and seasonal changes; and
- The significance (in heritage terms) of the relevant heritage assets and the contribution made by their setting, including historic or functional relationships.

7.20 The assessment of likely significant effects to sensitive receptors will consider the sensitivity of the receptor (on a scale of high, medium, low and negligible) and the magnitude of change (on a scale of large, medium, small and negligible) to determine the level of effect on a scale of major, moderate, minor and negligible. Significant effects will be determined following this through professional judgment.

7.21 The heritage significance (value or importance) of the heritage assets (receptors) will be defined on the basis of **Table 7.3** which has been informed by the DMRB and a clear understanding and appreciation of heritage significance to be set out in the Heritage

⁶¹ Highways England (2020) The 'Design Manual for Roads and Bridges' ((LA 104 Environmental Assessment and Monitoring) and (LA 106 Cultural Heritage Assessment))

⁶² IEMA, IHBC and ClfA (2021) Principles of Cultural Heritage Impact Assessment in the UK

⁶³ Historic England (2019) Advice Note 12, Statements of Heritage Significance: Analysing Significance in Heritage Assets

⁶⁴ Historic England (2015) Historic Environment Good Practice in Planning Note 2: Managing Significance in Decision Taking in the Historic Environment

⁶⁵ Historic England (2017) Historic Environment Good Practice in Planning Note 3: The Setting of Heritage Assets

⁶⁶ Historic England (2017) Historic England Advice Note 4: Tall Buildings

Assessment which will provide a detailed heritage baseline. This will be undertaken in accordance with Historic England guidance and informed by a site visit, research and professional judgement. As there are no assets within the 'very high' category (e.g. World Heritage Sites), this category has been omitted from the methodology.

Table 7.3: Criteria for Determining the Sensitivity of the Receptor

Sensitivity	DMRB Definition	Asset Type
High	High importance and rarity, national scale and limited potential for substitution	Scheduled monuments with standing remains Registered battlefields Grade I and II* listed buildings Other listed buildings that can be shown to have exceptional qualities in their fabric or historical association not adequately reflected in the listing grade Grade I and II* registered parks and gardens Conservation areas containing very important buildings
Medium	Medium or high importance and rarity, regional scale, limited potential for substitution	Grade II listed buildings Historic (unlisted) buildings that can be shown to have exceptional qualities in their fabric or historical association Grade II registered parks and gardens Conservation areas containing important buildings Historic townscape or built-up areas with historic integrity in their buildings, or built settings (e.g. including street furniture and other structures)
Low	Low or medium importance and rarity, local scale	'Locally listed' buildings and landscapes Historic (unlisted) buildings of modest quality in their fabric or historical association Historic townscape or built-up areas of limited historic integrity in their buildings, or built settings (e.g. including street furniture and other structures)

Negligible	Very low importance and rarity, local scale	Assets of no architectural or historic note; buildings of an intrusive character
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7.22 The magnitude of change (or impact) to heritage assets will be assessed using the criteria outlined in **Table 7.4** below which draws upon Table 3.4N of the DMRB.

Table 7.4: Criteria for Determining the Magnitude of Change to Heritage Assets

Magnitude of Change (ES/DMRB terminology)		DMRB Definition	Application to the Built Environment
Large/Major	Adverse	Loss of resource and/or quality and integrity of resource; severe damage to key characteristics, features or elements.	Change to key elements of the heritage asset, such that the asset is totally altered and much of its heritage significance is lost or enhanced.
	Beneficial	Large scale or major improvement of resource quality; extensive restoration; major improvement of attribute quality.	Substantial change within the setting of a heritage asset leading to considerable loss or enhancement of heritage significance of the asset.
Medium/Moderate	Adverse	Loss of resource, but not adversely affecting the integrity; partial loss of/damage to key characteristics, features or elements.	Change to many key elements of the heritage asset, such that the asset is clearly modified and there is some loss or enhancement of heritage significance.
	Beneficial	Benefit to, or addition of, key characteristics, features or elements, improvement of attribute quality.	Change within the setting of a heritage asset leading to some loss or enhancement of heritage significance of the asset.
Small/ Minor	Adverse	Some measurable change in attributes, quality or vulnerability; minor loss of, or alteration to, one (maybe more) key characteristics, features or elements.	Changes to key elements of the heritage asset, such that the asset is slightly altered and there is some loss or enhancement of heritage significance.
	Beneficial	Minor benefit to, or addition of, one (maybe more) key characteristics, features or elements; some beneficial impact on attribute or a	Change within the setting of a heritage asset leading to a slight loss or enhancement of heritage significance of the heritage asset.

Negligible		reduced risk of negative impact occurring.	
	Adverse	Very minor loss or detrimental alteration to one or more characteristics, features or elements.	Slight changes to elements of a heritage asset or within its setting that hardly affect the heritage significance of the asset.
	Beneficial	Very minor benefit or positive addition to one or more characteristics, features or elements.	

7.23 The level of effect will be assessed based on the sensitivity of the affected receptor and the magnitude of changes due to the Proposed Scheme, as set out in **Table 7.5**. The level of effect to heritage assets is quantified based upon the particular heritage significance of the asset, the contribution made by its setting, and the nature and level of the effect of the Proposed Scheme on that significance. A detailed discussion will be set out within the accompanying Heritage Assessment to determine the level of effect, using **Table 7.5** as a tool to assist with this process.

7.24 **Table 7.5** is informed by the Significance Matrix at Table 3.8.1 in the DMRB. The DMRB terminology is provided in brackets after the ES terminology.

Table 7.5: Criteria for Determining the Significance of Effect on Heritage Asset Receptors

Magnitude of change (or impact)	Sensitivity (or value, importance, etc.)			
	High	Medium	Low	Negligible
Large (Major)	Major (Large or very large)	Moderate to major (Moderate or large)	Minor to moderate (Slight to moderate)	Negligible (Slight)
Medium (Moderate)	Moderate to major (Moderate or large)	Moderate (Moderate)	Minor (Slight)	Negligible (Neutral or slight)
Small (Minor)	Minor to moderate (Slight or moderate)	Minor (Slight)	Negligible to minor (Neutral or slight)	Negligible (Neutral or slight)
Negligible	Negligible (Slight)	Negligible (Neutral or slight)	Negligible (Neutral or slight)	Negligible (Neutral)

7.25 The level of effect will be confirmed as a single level and not a range, informed by professional judgement. For each effect, it will be concluded whether the effect is 'beneficial' or 'adverse'. A statement will be made as to whether the level of effect is 'significant' or 'not

significant', having regard to the DMRB (which advises that the effect on the cultural heritage resource is not significant when the impact does not substantially diminish the heritage interest of the cultural heritage resource⁶⁷) and applying professional judgement, informed by an understanding of the heritage significance of these assets.

- 7.26 The standardised significance criteria are not an exact equivalence with the DMRB five-point significance categories. However, professional judgement would be used in determining the category of significance for the effect on each asset, informed by **Table 7.6** below. Only the ES terminology will be used in the ES Chapter.

Table 7.6: Significance Categories and Definitions

Level of Effect (ES Terminology/DMRB)	DMRB Definition	ES Definition
Major/Very Large	Effects at this level are material in the decision-making process	Where the Proposed Scheme is likely to cause a considerable change from the baseline conditions and the receptor has limited adaptability, tolerance or recoverability or is of the highest sensitivity
Major/Large	Effects at this level are likely to be material in the decision-making	
Moderate/ Moderate	Effects at this level can be considered to be material decision-making factors	Where the Proposed Scheme is likely to cause either a considerable change from the baseline conditions at a receptor which has a degree of adaptability, tolerance or recoverability or a less than considerable change at a receptor that has limited adaptability, tolerance or recoverability. This effect is considered more likely to be ' <i>Significant</i> ' but will be subject to professional judgement
Minor/Slight	Effects at this level are not material in the decision-making process.	Where the Proposed Scheme is likely to cause a small, but noticeable change from the baseline conditions on a receptor which has limited adaptability, tolerance or recoverability or is of the highest sensitivity; or where

⁶⁷ Highways England (2020) The 'Design Manual for Roads and Bridges' ((LA 104 Environmental Assessment and Monitoring) and (LA 106 Cultural Heritage Assessment))

Level of Effect (ES Terminology/DMRB)	DMRB Definition	ES Definition
Negligible/Neutral		the Proposed Scheme is likely to cause a considerable change from the baseline conditions at a receptor which can adapt, is tolerant of the change or/and can recover from the change.
	No effects or those that are beneath levels of perception, within normal bounds of variation or within the margin of forecasting error.	Where the Proposed Scheme is unlikely to cause a noticeable change at a receptor, despite its level of sensitivity or there is a considerable change at a receptor which is not considered sensitive to a change.

Limitations and Assumptions

7.27 To ensure transparency within the EIA process, the following limitations and assumptions have been identified:

- The assessment of effects will be undertaken on the basis of information supplied on the construction period, design of the Proposed Scheme and estimated completion date;
- The baseline assessment relies on the accuracy of the data provided by secondary and archival sources. It is assumed that information on the HER database was accurate and complete, as of June 2024;
- The ZTV (**Figure 6.4**) used to inform the study area and the identification of unlikely/not significant and likely/significant effects is based on the emerging height and massing of the Proposed Scheme, as of November 2024; and

7.28 There has been no access to the interiors of the relevant listed buildings with an external inspection sufficient for the purposes of assessing the impacts of the Proposed Scheme on their heritage significance through change in part of the buildings' setting.

8. Wind

Technical Baseline

- 8.1 The baseline wind microclimate has initially been established through a qualitative desk study based on publicly available information of the surroundings (i.e. via Google) and professional judgement. A more detailed assessment of the baseline conditions will be carried out using Computational Fluid Dynamics (CFD) modelling (see 'Assessment Methodology of Effects Likely/Significant') and presented in the ES.
- 8.2 The baseline results consider long-term meteorological climate data for the Manchester area to understand the baseline conditions specific to the EIA Boundary.
- 8.3 Strength and directionality of the winds are fundamental aspects of the environmental wind assessment. Historical wind data (wind speed and direction) recorded at Manchester Airport during the years 2001 to 2015 were analysed and are shown in **Figure 8.1** and **Figure 8.2**.
- 8.4 The directionality of winds in the region of Manchester is affected by the Welsh Mountains to the south-west. While in the rest of the UK the most frequent and strongest winds are from the south-west, the most frequent winds in Manchester are slightly shifted in the direction to the south and the strongest winds are from the west. The annual wind roses shown in **Figure 8.1** and **Figure 8.2** illustrate the directionality and strength of the prevailing winds at Manchester Airport for all times of the day and seasons.
- 8.5 Other characteristics of the wind climate in Manchester are summarised below.
- The south and west winds are the most frequent and strongest in Manchester at all times of the year. These winds are relatively warm and wet. Most cases of serious annoyance due to strong winds around buildings are caused by these winds;
 - Northeast winds are almost as common as the west winds during spring but are weaker. They are often associated with cold, dry conditions. These winds can be more unpleasant than their strength suggests due to the lower-than-average air temperature;
 - Northwest winds are less frequent than the south and west winds. They are relatively cold;
 - Southeast winds are generally warm and light and are rarely associated with problematic ground level winds.
- 8.6 Conditions around the existing site are expected to be windy for the area, with the highest accelerations occurring along the Cavendish Street public route through the middle of the EIA Boundary (see **Figure 8.3** and **Figure 8.4**).

Proposed Scope of Assessment

- 8.7 The below sets out the proposed scope of assessment based on an understanding of the characteristics of the EIA Boundary, surrounding area and the Proposed Scheme (**Chapter 4**).

Effects Likely/Significant

8.8 **Table 8.1** outlines the effects (and associated receptors) that are considered to be likely and significant and therefore will be assessed within the EIA and reported in the ES.

Table 8.1: Potential Likely Significant Effects and Sensitive Receptors

Effect	Receptor(s)	Applicable Stage(s)
Altered wind <u>safety</u> conditions	Pedestrians and cyclists in external public areas on-site and in the immediate surroundings	Construction / Operation
Altered wind <u>comfort</u> conditions	Pedestrians and cyclists in external public areas on-site and in the immediate surroundings.	Construction / Operation

8.9 The construction stage effects will not be modelled as a separate scenario within the ES as the operational stage is considered to be a worst cast proxy (i.e. when the massing is at it's maximum form). Therefore, the construction stage effects are considered to be less than or on parity with the operational stage effects.

Assessment Methodology of Effects Likely/Significant

8.10 The following background surveys/studies have been completed.

Table 8.2: Background Surveys/Studies

Survey/Study/Analysis/Evaluation	Overview	Date of Completion
Completed		
Site Visit	External walk around the existing site to understand existing wind climate	20 th June 2024
Review of local wind climate	Collection, review and processing of latest historic wind data from Manchester Airport	Summer / Autumn 2024

Legislative Framework, Policy and Guidance

8.11 The following legislation and policy has informed the assessment of effects within this Chapter:

- The National Planning Policy Framework (NPPF), 2023.

8.12 The NPPF sets out the Government's planning policies for England. These policies outline the Government's vision of sustainable development which should be interpreted and applied locally to meet local and community aspirations. There are no national planning policies

within the NPPF directly relating to wind microclimate issues. However, the benefits of a high-quality built environment are emphasised within the framework. Paragraph 135 states that: *“planning policies and decisions should ensure that developments...create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users...”*.

8.13 The following guidance has informed the assessment of effects for wind microclimate:

- National Design Guide (2021)⁶⁸ and National Model Design Code (2021)⁶⁹;
- Manchester Local Plan⁷⁰;
- Guide to Development in Manchester Supplementary Planning Document and Planning Guidance⁷¹; and
- London Docklands Development Corporation ‘The evaluation of the windiness of a building complex before construction’, (T.V. Lawson, 1990) (the ‘Lawson LDDC criteria’)⁷².

Configurations

8.14 A numerical study using steady-state Computational Fluid Dynamics (CFD) will be undertaken for the following scenarios:

- Baseline;
- Baseline + Proposed Scheme; and
- Baseline + Proposed Scheme + Cumulative Projects (Cumulative Projects within a 300m radius). The Cumulative projects listed in **Table 14.1** which are at a greater distance than 300m have been reviewed using professional judgement and will not have significant cumulative effect. The assessment of cumulative effects will be reported in a separate chapter in the ES.

⁶⁸ DLUHC and MHCLG, Online, National Design Guide (2021) <https://www.gov.uk/government/publications/national-design-guide>.

⁶⁹ DLUHC and MHCLG, Online, National Model Design Code (2021) <https://www.gov.uk/government/publications/national-model-design-code>.

⁷⁰ Manchester City Council, Places for Everyone Joint Development Plan 2022 to 2039 (2024) <https://www.greatermanchester-ca.gov.uk/media/9578/places-for-everyone-joint-development-plan-document.pdf>

⁷¹ Manchester City Council, The Guide to Development in Manchester (2007) https://www.manchester.gov.uk/info/200074/planning/1528/the_guide_to_development_in_manchester

⁷² London Docklands Development Corporation (1990) The evaluation of the windiness of a building complex before construction.

Computational Fluid Dynamics

- 8.15 The assessment of wind conditions will be supported by a CFD study to confirm and quantify pedestrian level wind conditions. The CFD analysis will be carried out for 16 equally spaced wind directions (in 22.5° intervals).
- 8.16 A detailed 3D representation of the assessment scenarios will be produced. Building surroundings within a distance of at least 500m from the centre of the EIA Boundary will be modelled for each assessment scenario. This distance may be extended to account for wind effects from significant tall buildings (e.g. Deansgate Square) based on professional judgement.
- 8.17 Small building details of less than 0.5m will not be modelled, as they would not be expected to impact the localised wind conditions.
- 8.18 Conservatively, landscaping, such as trees and other planting, will not be modelled on- or off-site for the initial assessments. Landscaping is likely to provide a beneficial impact on the wind environment by dissipating local windiness and therefore its exclusion means that a 'worst-case' has been modelled.
- 8.19 Details of the mesh including cell count, prism layers, and refinement zones will be included in the final report.
- 8.20 A steady-state Reynolds-Averaged Navier Stokes (RANS) based modelling approach will be used for each of the 16 wind directions and for each assessment scenario. Simulations will run to convergence and determined through monitoring of probes located within the EIA Boundary.
- 8.21 Results will be presented as Lawson contour plots, representing comfort and safety wind speeds at pedestrian-chest level (1.5m above ground) for the 'worst' (winter) season and summer season. The Lawson comfort and safety contour plots will be obtained by combining the directional wind speed-up ratios with the Weibull statistics as obtained from the wind climate study.
- 8.22 Streamlines can also be produced for key areas. Results will initially be presented to the Client and design team to develop and agree mitigation options, if necessary.

Lawson Comfort and Distress Criteria

- 8.23 The criteria used to describe windiness in this assessment are the Lawson criteria developed for the London Docklands Development Corporation (Lawson LDDC). The Lawson LDDC criteria are used widely throughout the UK. These criteria are useful to describe windiness in terms of acceptability for particular activities.
- 8.24 Acceptable comfort conditions for various activities in order of increasing windiness are described in **Table 8.3**.
- 8.25 The conditions described below are the limiting tolerable criteria for comfort. For ideal conditions, the windiness in an area with a known activity will be a category better (i.e. tolerable conditions at an entrance will be in the 'Standing' range but ideal conditions will be in the 'Occasional Sitting' range). For more sensitive activities, such as regular use for external sitting and eating, conditions should be well within the 'Frequent Sitting' category.

Table 8.3: Table of City Lawson Comfort Criteria

Criteria	5% Seasonal Exceedance Upper Threshold Speed	Description	Plot Colour
'Sitting'	4m/s	Acceptable for occasional outdoor seating, e.g. general public outdoor spaces, etc.	Blue
'Standing'	6m/s	Acceptable for entrances, bus stops, covered walkways or passageways beneath buildings, and terraces intended for occasional use.	Green
'Strolling'	8m/s	Acceptable for external pavements, walkways.	Yellow
'Business Walking'	>8m/s	Not comfortable for regular pedestrian access	Orange

8.26 In the assessment, the words 'Frequent Sitting', 'Occasional Sitting', 'Standing', 'Strolling', and 'Business Walking' are used to describe comfort levels of windiness as described in **Table 8.3**.

8.27 As shown in **Table 8.4**, there are also distress criteria. The distress criterion for 'Pedestrian Safety Limit' is equivalent to a mean speed of over 15 m/s and a gust speed of 28 m/s (62 mph), to be exceeded less than once a year. This is intended to identify wind conditions which individuals or cyclists may find physically difficult, especially if they are less able-bodied.

Table 8.4: Table of Lawson City Distress criteria

Criteria	Annual Hourly-Average Exceedance Speed (once a year)	Description	Plot Colour
'General Public Access'	N/A	Members of the general public and cyclists are expected to be able to access the area safely in normal windy weather	No markings
'Pedestrian Safety Limit'	>15m/s	Presents a safety risk for pedestrians, especially to more vulnerable members of the public.	Orange
'Able-Bodied Safety Limit'	>22m/s	Presents a safety risk for all pedestrians.	Red

Reporting of the Environmental Effect and Significance Criteria

- 8.28 The assessment of likely significant effects to sensitive receptors will consider the sensitivity of the receptor (on a scale of high, medium, low and negligible) and the magnitude of impact (on a scale of large, medium, small and negligible) to determine the level of effect on a scale of major, moderate, minor and negligible. Significant effects will be determined following this through professional judgment.

Receptors and Receptor Sensitivity

- 8.29 Receptors in the wind microclimate assessment are defined as regular users of the accessible external spaces on-site and in the immediate surroundings. The extent of off-site receptors is determined using professional judgement of how far the Proposed Scheme's impact will be perceived.
- 8.30 Users include pedestrians and cyclists. Accessible external spaces include thoroughfares, cycle routes, cross walks, areas of outdoor amenity, entrances, bus stops, external seating areas, etc.
- 8.31 The sensitivity of receptors is related to the intended use at each location; there are no defined definitions for sensitivity, as the key consideration is whether the wind conditions experienced at a particular receptor location are suitable for the intended use (in terms of pedestrian comfort and distress thresholds) at that particular location.
- 8.32 The environmental wind assessment will be based on the 'worst season' (typically the winter season) for areas that will be accessible all year round, and summer season for areas typically only used in summer (i.e. flexible amenity/terrace spaces). Conditions may be considered negligible when the baseline condition is above a threshold for an activity and those conditions persist in the presence of the Proposed Scheme (i.e. conditions located in a public thoroughfare are above the safety limit for general public in the baseline and with the Proposed Scheme).
- 8.33 Conditions may also be considered beneficial when the baseline condition is above a threshold for an activity and those conditions improve to within acceptable ranges in the presence of the Proposed Scheme (i.e. conditions at an area with a high sensitivity use are above the limit for 'Standing' in the baseline and change to 'Standing' or better with the Proposed Scheme.)
- 8.34 Note, a condition that is improved from the baseline, but still does not satisfy the criteria for the chosen activity will still be considered an adverse impact.

Limitations and Assumptions

- 8.35 To ensure transparency within the EIA process, the following limitations and assumptions have been identified:
- The CFD simulations provide an average expected wind speed in regard to pedestrian comfort, and typical forms of CFD do not have the ability to fully predict the gusty nature of wind. Areas which would have uncomfortable wind conditions would be likely to have instances of strong winds. As such, professional judgement incorporating Arup's experience of a large number of similar projects both within the UK and

internationally has been applied, informed by the CFD results to identify areas of the Proposed Scheme likely to have instances of strong winds.

- The judgement on whether the wind conditions for a particular public area (e.g., amenity space) are acceptable for the intended use is based on the existing surroundings and professional judgement.
- Effects of hard and soft landscaping and detailed mitigation development are not accounted for within the initial assessment.

9. Daylight, Sunlight and Overshadowing

Technical Baseline

- 9.1 The EIA Boundary currently contains a residential student building comprising of two, four storey blocks separated by Cavendish Street. Both blocks contain an internal courtyard. The properties to the west of the EIA Boundary are a mixture of commercial, student accommodation and traditional residential buildings. The properties directly to the south appear to be educational with the exception of the public house. There is a large student residential building to the west across Higher Chatham Street. The properties to the south and west vary in height from around 2 to 7 storeys. The properties to the east generally vary from 2 to 5 storeys, although 84 Cambridge Street is a newer 9 storeys. There is limited external amenity neighbouring the EIA Boundary with the main areas being Loxford Gardens to the west and All Saints Park to the east.
- 9.2 The relatively low-rise existing massing means that the current daylight and sunlight levels to the neighbouring residential properties adjacent to the EIA Boundary is likely to be good.
- 9.3 **Figure 9.1** shows the neighbouring properties adjacent to the EIA Boundary that are sensitive to changes in daylight, sunlight and overshadowing. The EIA Boundary is shown in red, the neighbouring residential receptor for daylight and sunlight in blue and the external amenity space which will be considered for overshadowing is shown in orange. The addresses of the sensitive receptors are listed below.
1. Cavendish Hall of Residence (part Ormond Building)
 2. Victoria Hall
 3. Needham Court
 4. Needham Court
 5. Manchester House
 6. 44 Cavendish Street
 7. 84 Higher Cambridge Street
 8. Cambridge House
 9. 2-12 Elmdale Walk
 10. 2-12 Broomwood Walk
 11. 2-12 Maltham Walk
 12. 2-24 Knowles Place
 13. 60-70 Loxford Street
 14. Loxford Gardens (Amenity)

15. Manchester Metropolitan University (Amenity)

16. Cavendish Hall of Residence (Amenity)

Proposed Scope of Assessment

- 9.4 The below sets out the proposed scope of assessment based on an understanding of the characteristics of the EIA Boundary, surrounding area and the Proposed Scheme (**Chapter 4**). Where environmental effects are considered unlikely to be 'significant', an appropriate evidence base has been provided to justify the 'scoping out' of these effects ensuring the EIA and ES only assess those effects considered 'likely' to be significant, at this stage.

Effects Unlikely/Not Significant

- 9.5 The following effects are considered unlikely to be significant and therefore will not be considered further within the EIA or reported in the ES. A factual evidence base has been provided below to support this. Where mitigation has been used to inform this judgement, the identified mitigation has been captured within the Preliminary Environmental Management Plan (PEMP) provided in **Appendix 2.1**.

Increased solar glare [Cambridge Street Junction slip roads from Mancunian Way]

- 9.6 It is considered that a solar glare assessment will not be required. There is not a railway line close to the EIA Boundary, and the major road junctions are located to the north (the closest being the Cambridge Street Junction slip roads from Mancunian Way) meaning that any potential glare instances are highly unlikely. The Proposed Scheme will not contain large areas of glass as would be common for a large commercial building. As a result, the façade is broken into small, recessed glass elements, with any solar dazzle being short, temporary and isolated to secondary junctions. Therefore, it is considered that the Proposed Scheme will not cause any problematic glare instances.
- 9.7 Therefore, increased solar glare is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Availability of internal daylight and sunlight levels [Proposed residents]

- 9.8 The internal daylight and sunlight levels to the proposed student accommodation and proposed amenity is not a comparison assessment and not required to be included as part of the EIA. A separate standalone report will be submitted separately as part of the planning application.
- 9.9 Therefore, the availability of internal daylight and sunlight levels will not be considered further in the EIA or reported in the ES.

Effects Likely/Significant

- 9.10 **Table 9.1** outlines the effects (and associated receptor[s]) that are considered to be likely and significant and therefore will be assessed within the EIA and reported in the ES. The location of the sensitive receptors in relation to the EIA Boundary is shown highlighted in blue on **Figure 9.1** below.

Table 9.1: Potential Likely Significant Effects and Sensitive Receptors

Effect	Receptor(s)	Applicable Stage(s)
Reduced daylight and sunlight amenity	Cavendish Hall of Residence (part Ormand Building)	Construction / Operation
	Victoria Hall	
	Needham Court	
	Manchester House	
	44 Cavendish Street	
	2-28 Dalesman Walk	
	84 Cambridge Street	
	Cambridge House	
	2-12 Elmdale Walk	
	2-12 Broomwood Walk	
	2-12 Maltham Walk	
	2-24 Knowles Place	
	60-70 Loxford Street	
Increased overshadowing	Loxford Gardens	Construction / Operation
	Manchester Metropolitan University	
	Cavendish Hall of Residence	

- 9.11 The construction stage effects will not be modelled as a separate scenario within the ES as the operational stage is considered to be a worst cast proxy (i.e. when the massing is at it's maximum form). Therefore, the construction stage effects are considered to be less than or on parity with the operational stage effects.

Assessment Methodology of Effects Likely/Significant

- 9.12 The following background surveys/studies have been completed.

Table 9.2: Background Surveys/Studies

Survey/Study/Analysis/ Evaluation	Overview	Date of Completion
Completed		
Point Cloud Survey	Laser survey of neighbouring sensitive receptors to be used for the detailed model.	19 July 2024

Daylight, sunlight and overshadowing

9.13 A daylight and sunlight assessment of the impacts of the Proposed Scheme on identified receptors will be undertaken. This will consider the effects on light levels to the neighbouring residential properties shown on **Figure 9.1**. The following scenarios will be assessed:

1. Current Baseline Condition (i.e. with all neighbouring properties in their existing condition);
2. Current Baseline Condition + Proposed Scheme; and
3. Current Baseline Condition + Proposed Scheme + Cumulative Projects (i.e. assuming that any relevant neighbouring planning consents are built) – the Cumulative Projects will be reviewed, and this scenario will only be assessed if there are relevant Cumulative Projects within 150m of the EIA Boundary.

9.14 The leading publication providing national guidance on the provision of daylight and sunlight to new development, and the impacts of development on daylight and sunlight to neighbouring buildings and open spaces, is BRE Report 209, 'Site Layout Planning for Daylight and Sunlight: A guide to good practice' (third edition, 2022)⁷³.

9.15 The BRE guide states that:

(Its) main aim is ... to help to ensure good conditions in the local environment considered broadly, with enough sunlight and daylight on or between the buildings for good interior and exterior conditions.

This guide is intended for building designers and their clients, consultants and planning officials. The advice given is not mandatory and the guide should not be seen as an instrument of planning policy; its aim is to help rather than constrain the designer. Although it gives numerical guidelines, these should be interpreted flexibly since natural lighting is only one of the many factors in site layout design. In special circumstances the developer or planning authority may wish to use different target values. For example, in a historic city centre, or in an area with modern high-rise buildings, a higher degree of obstruction may be unavoidable if new developments are to match the height and proportions of existing buildings... The calculation methods ... are entirely flexible in this respect...

9.16 The Vertical Sky Component (VSC) and No Sky Line (NSL) will be used to test the daylight impacts to the relevant neighbouring sensitive receptors.

9.17 VSC is a measure of the total skylight available on the external face of a window. The BRE guidelines state that if the VSC at the centre of a window is less than 20%, and it is less than 0.8 times its former value (i.e. the proportional reduction is greater than 20%), then the reduction in skylight will be noticeable.

9.18 The NSL test is undertaken on the working plane inside a room, where room layouts are known, which measures the area that can receive direct skylight and assesses the distribution of daylight around the room. The area of the working plane in a room that is enclosed by the no-sky line (NSL) and can receive direct skylight will be reduced to less than

⁷³ BRE Report 209 'Site Layout Planning for Daylight and Sunlight: A guide to good practice' (third edition, 2022)

0.80 times its former value. For the purposes of this assessment, we will test all neighbouring rooms for NSL.

- 9.19 The daylight, sunlight and overshadowing calculations will be undertaken using a three-dimensional computer model of the EIA Boundary and surroundings. Light levels to each potentially impacted window and room within the neighbouring residential properties (i.e. the potentially sensitive receptors) will be calculated both before and after the implementation of the Proposed Scheme, and any reduction will be considered with reference to BRE guidance. The analysis model will be constructed from a 3D Point Cloud Laser Scan Survey of the test properties and a wider 3D context model.
- 9.20 The amount of sunlight reaching a room is measured by calculating the percentage of annual probable sunlight hours (APSH) at the centre of its windows. Sunlight will be adversely affected if the centre of the window will receive less than 25% APSH or less than 5% APSH during the winter months (21 September to 21 March); and less than 0.80 times its former sunlight hours during either period; and the reduction in sunlight over the whole year will be greater than 4% APSH.
- 9.21 Sunlight should be assessed on the equinox (21 March) to main back gardens of houses, allotments, parks and playing fields, children's playgrounds, outdoor swimming pools, sitting-out areas such as in public squares, and focal points for views, such as a group of monuments or fountains.
- 9.22 The assessment measures the percentage of each area that can receive at least two hours of sunlight on 21 March – the two-hours sun-on-ground (SOG) test.
- 9.23 If, following development, the area of the garden or other amenity space that can receive two hours of direct sunlight on 21 March is reduced to both less than 50% of its total area and less than 0.80 times its former value, the loss of sunlight is likely to be noticeable and the space will tend to look more heavily overshadowed.
- 9.24 Where a large building is proposed which may affect a number of gardens or open spaces, it can be illustrative to plot shadow plans showing the location of shadows at different times of day and year. The equinox (21 March) is the best assessment date as it shows the average level of shadowing. Mid-summer (21 June) is an optional addition date when there would be greater sunlight availability and reduced overshadowing.
- 9.25 The assessment of likely significant effects to sensitive receptors will consider the sensitivity of the receptor (on a scale of high, medium, low and negligible) and the magnitude of change (on a scale of large, medium, small and negligible) to determine the level of effect on a scale of major, moderate, minor and negligible. Significant effects will be determined following this through professional judgment. This will be undertaken with reference to Appendix H of the BRE guide.
- 9.26 Summary tables will be produced which count the number of receptors in each category of magnitude of change and level of effect for each surrounding property as listed below. The level of effect used for the assessment is listed below. Daylight distribution (NSL) plots will also be produced showing the floor plans used for the daylight assessment.
- Negligible: less than 20% reduction when compared to baseline condition

- Minor: 21% to 30% reduction
- Moderate: 31% to 40% reduction
- Major: Greater than 40% reduction

Limitations and Assumptions

9.27 To ensure transparency within the EIA process, the following limitations and assumptions have been identified:

- Access into the surrounding properties is unlikely to be obtained.
- Where floor plan information and precise window locations could not be identified for the sensitive receptors, assumptions will be made based on information available and external observation e.g. site visit and online resources e.g. Google Maps, Apple Maps, Bing Maps etc. Where floor plans have been found will be clearly listed in the ES Chapter.
- The building uses of neighbouring properties have been established from external observation and Valuation Office Agency council tax band searches.
- Surrounding trees and foliage will not be considered as part of the assessments as their size, shape, and density are impossible to accurately predict. However, the BRE recognise that trees can be obstructive in allowing light penetration, particularly dense belts of evergreens. There is limited trees and foliage adjacent to the EIA Boundary and without the inclusion of this vegetation, the assessment results presented within this report therefore represent a 'worst case'.

10. Climate Change

- 10.1 The UK Climate Change Projections (UKCP18)⁷⁴ set out that climate change is projected to lead to increasing annual temperatures, decreasing summer rainfall and increasing winter rainfall as a result of increasing global Greenhouse Gas (GHG) emissions. This applies to the UK, including the EIA Boundary.
- 10.2 In this context the EIA regulations require the consideration of Climate Change, including how resilient the Proposed Scheme is to the effects of climate change, and how the Proposed Scheme mitigates its impact on climate change through GHG emissions.
- 10.3 IEMA has prepared guidance for EIA practitioners for both Climate Change Adaptation⁷⁵ and Mitigation (IEMA's GHG Assessment Guidance)⁷⁶ which will be used in the Climate Change assessment for the Proposed Scheme.

Technical Baseline

Greenhouse Gas Emissions

- 10.4 Current baseline conditions regarding greenhouse gas (GHG) emissions have been established at the local authority (Manchester City Council (MCC)) and the regional level (North West) from the latest (2022) UK Government local authority and regional carbon dioxide emissions national statistics: 2005 to 2022⁷⁷ as presented in **Table 10.1**.
- 10.5 The existing Cambridge Halls student accommodation is currently on the EIA Boundary. The EIA Boundary's current GHG emissions are unknown in quantitative terms and for the purposes of the GHG emissions assessment, baseline GHG emissions from the EIA Boundary are assumed to be zero, an approach that helps ensure a reasonable 'worst-case' scenario regarding the GHG effect of the Proposed Scheme.

Table 10.1: Baseline Local & Regional GHG Emissions

Geographical Area	2022 GHG Emissions (tonnes CO ₂ e)
MCC	2, 141,357
North West	40,592,978
EIA Boundary	0

- 10.6 The future baseline conditions regarding GHG emissions have been established in the form of carbon budgets proposed for Manchester via the Tyndall Centre⁷⁸ and the UK⁷⁹ as presented

⁷⁴ <https://www.metoffice.gov.uk/research/approach/collaboration/ukcp/index>

⁷⁵ IEMA (2020). Environmental Impact Assessment Guide to Climate Change Resilience and Adaptation

⁷⁶ IEMA (2022). EIA Guide to: Assessing Greenhouse Gas Emissions and Evaluating their Significance

⁷⁷ <https://www.gov.uk/government/collections/uk-local-authority-and-regional-greenhouse-gas-emissions-national-statistics>

⁷⁸ <https://carbonbudget.manchester.ac.uk/reports/E08000003/>

⁷⁹ Carbon Budgets - GOV.UK (www.gov.uk)

in **Table 10.2**. These will be used to contextualise GHG emissions from the Proposed Scheme in order to establish the magnitude of its net GHG effect.

Table 10.2: UK & Manchester Carbon Budgets (tCO₂e)

Period	UK	MCC
2018 – 2022	2,544,000,000	8,600,000
2023 – 2027	1,950,000,000	4,600,000
2028 – 2032	1,725,000,000	2,400,000
2033 – 2037	965,000,000	1,200,000
2038 – 2042	Not yet set	600,000
2043 – 2047	Not yet set	300,000
2048 - 2100	Not yet set	300,000

Climate Conditions

- 10.7 Current baseline climate conditions for the EIA Boundary have been established from the Met Office's closest automatic weather station to the EIA Boundary, located at Rochdale, Greater Manchester⁸⁰. The data provides average monthly conditions for the 1981-2010 period summarised below to show summer maximum temperature and average summer and winter rainfall.

Table 10.3: Current climate baseline

Description	Temperature / Rainfall
Summer maximum temperature (°C)	19.7
Summer rainfall (mm per month)	83.1
Winter rainfall (mm per month)	105.8

- 10.8 Future baseline climate conditions for the EIA Boundary area have been established from the Met Office's latest climate projections UKCP18⁸¹ for the 25km OS grid square within which the EIA Boundary is located (387500, 387500).
- 10.9 The projections comprise forecast changes relative to 1981 to 2010 baseline conditions for annual and seasonal temperatures and rainfall. In accordance with IEMA guidance, projections are taken from the "high" emissions scenario (known as "RCP8.5"), 50th percentile (i.e. median) scenario for the 2050s and 2080s.
- 10.10 Projected changes to seasonal and annual temperature and rainfall relative to 1981-2010 conditions, which could result in severe weather effects such as droughts, floods and heat waves, are provided in **Table 10.4**.

⁸⁰ <https://www.metoffice.gov.uk/research/climate/maps-and-data/uk-climate-averages/gcw2ymd6s>

⁸¹ <https://www.metoffice.gov.uk/research/approach/collaboration/ukcp/about/what-is-ukcp>

Table 10.4: Future climate baseline

Description	Temperature / Rainfall baseline	Change to baseline	2050s	2080s	Future baseline Temperature / rainfall
			Future baseline Temperature / rainfall	Change to baseline	
Summer maximum temperature (°C)	19.7	2.3	22.0	4.9	24.6
Summer rainfall (mm per month)	83.1	-16%	69.7	-31%	57.1
Winter rainfall (mm per month)	105.8	6%	112.5	13%	120.0

Proposed Scope of Assessment

10.11 The UK Climate Projections provide guidance on the anticipated effects of climate change. Using these projections, the UK Climate Change Risk Assessment (UKCCRA)⁸², updated in 2021, identifies potential risks and impacts of climate change across a number of areas including Infrastructure, Health, Communities and the Built Environment. Key risks from the UKCCRA which related to the Proposed Scheme are summarised below.

- N1 – Risks to species and habitats from climate change;
- I2 – Risks for infrastructure from flooding;
- I7 – Risks to infrastructure from subsidence;
- H1 – Risks to health and wellbeing from high temperatures;
- H3 – Risks to people, communities and buildings from flooding;
- H5 – Risks to building fabric;
- H10 – Risks to water quality and household water supplies;
- B1 – Risks to businesses from flooding;
- B3 – Risks to business from water scarcity; and
- B5 – Risks to business operations due to high temperatures.

⁸² <https://www.theccc.org.uk/publication/independent-assessment-of-uk-climate-risk/>

10.12 Based on the Climate Projections and risks from the UKCCRA key likely receptors to be impacted by climate change include:

- The **Global Climatic System** from additional GHG emissions;
- **Construction Employees** and **Future Occupants** may be impacted due to overheating from increasing temperatures;
- **Site Infrastructure** may be impacted due to changing ground conditions and as a result of increased rainfall and flood risk;
- **Construction Operations** may be impacted by changing weather patterns leading to risks of flooding, pollution and impacts on **Air Quality**;
- **Site Habitats and Species** may be impacted by changing climate space; and
- **Site Operations, Infrastructure** and **Future Occupants** may be impacted by decreasing summer rainfall and water availability, as well as increased risks of flooding due to increasing winter rainfall.

10.13 The below sets out the proposed scope of assessment based on an understanding of the characteristics of the EIA Boundary, surrounding area and the Proposed Scheme (**Chapter 4**). Where environmental effects are considered unlikely to be 'significant', an appropriate evidence base has been provided to justify the 'scoping out' of these effects ensuring the EIA and ES only assess those effects considered 'likely' to be significant, at this stage.

Effects Unlikely/Not Significant

10.14 The following effects are considered unlikely to be significant and therefore will not be considered further within the EIA or reported in the ES. A factual evidence base has been provided below to support this. Where mitigation has been used to inform this judgement, the identified mitigation has been captured within the Preliminary Environmental Management Plan (PEMP) provided in **Appendix 2.1**.

Increasing summer mean and daily maximum temperatures and influence on human health during construction [construction employees]

10.15 Increasing summer temperatures may lead to health and safety risks for construction employees.

10.16 A Construction Environmental Management Plan (CEMP) will be prepared to support the demolition and construction of the Proposed Scheme and will set out climate change adaptation and measures to reduce risks to human health from overheating such as provision of shaded refuges and potable water supplies during construction.

10.17 Therefore, the effect of an increasing summer mean and daily maximum temperatures on construction employees and their human health is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Changing annual temperatures / rainfall patterns and changes to air quality during construction and water supply, flood risk during construction and operation [site operations, infrastructure, construction employees and future occupants]

- 10.18 Changing annual temperatures and rainfall patterns may lead to a reduction of water supply, an increased risk of flooding (and damage), and an impact on air quality.
- 10.19 The CEMP will include measures to protect receptors from potential climate change effects through demolition and construction, including the provision of appropriate drainage and pollution prevention systems. The CEMP will also include measures to monitor and reduce potable water use.
- 10.20 It is anticipated that dust and particulate matter emissions produced during demolition and construction activities would be controlled through the implementation of a CEMP. This CEMP will be informed by the Institute of Air Quality Management (IAQM) guidance 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. This would include any enhanced dust suppression measures to reduce the risk of dust from increased summer temperatures.
- 10.21 All of these tertiary mitigation measures would be considered an integral part of the Proposed Scheme and considered as part of the CEMP. Therefore, changing annual temperatures / rainfall patterns and changes to water supply, flood risk and air quality is not considered to be significant during construction and will not be considered further in the EIA or reported in the ES.
- 10.22 The Proposed Scheme will lead to an increased demand on potable water supplies from future site users. The operational development will include water saving measures built into the design of the Proposed Scheme, such as water saving fixtures and fittings, to reduce water consumption and will target 7 BREEAM credits under the Water section, 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).
- 10.23 According to the Environment Agency Flood Zone Map⁸³, the majority of the EIA Boundary is located in Flood Zone 1, which means the EIA Boundary as is at very low risk of flooding. A very small section in the Southwest corner of the EIA Boundary is located in Flood Zone 2, therefore a reduction in existing runoff will be provided.
- 10.24 Flood risk mitigation incorporated into the Proposed Scheme will include the following:
- Implementation of sustainable drainage features such as raingardens, blue/ green roofs, tree pits etc;

⁸³ <https://flood-map-for-planning.service.gov.uk/location>

- Ensuring adequate elevation of critical infrastructure on or below ground floor level;
- Ensure proposed external falls don't fall towards the building entrances/ exits;
- Drainage strategy will account for climate change impacts (30-45% rainfall intensity increase depending on storm event); and
- Provision of surface water storage to meet local authority requirements, which will be agreed with Local Flood Authority at detailed design.

10.25 Therefore, changing annual temperatures / rainfall patterns and changes to water supply, flood risk and water resources is not considered to be significant during operation and will not be considered further in the EIA or reported in the ES.

Changes to future climate including temperature and rainfall and risk to building infrastructure and future occupants during operation [building infrastructure and future occupants]

10.26 Changes to future climate including temperature and rainfall may cause ground conditions to change which may lead to impacts on building foundations and structures and the future occupants.

10.27 The Building Regulations⁸⁴ require new developments to consider the impact of ground movement in foundation design. 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.

10.28 Therefore, the effect of changes to future climate including temperature and rainfall upon site infrastructure and future occupants is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Changes to future climate and resilience of site habitats and species during operation [habitats and species]

10.29 Changes to future climate including temperature and rainfall, could impact upon site habitats and species.

10.30 The EIA Boundary generally comprises built development and hardstanding. There are no designated ecological sites, which the Proposed Scheme may have likely significant effects on.

10.31 The Proposed Scheme includes for planting of trees, green infrastructure and landscaping which will enhance the biodiversity of the EIA Boundary, mitigating the anticipated impacts of climate change in accordance with the England Biodiversity Strategy⁸⁵ and Natural England Climate Change Adaptation Manual⁸⁶.

⁸⁴

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/540328/BR_PDF_AD_L2A_2013_with_2016_amendments.pdf

⁸⁵

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69446/pb13583-biodiversity-strategy-2020-111111.pdf

⁸⁶ <http://publications.naturalengland.org.uk/publication/5679197848862720>

10.32 Therefore, changes to future climate and resilience upon site habitats and species is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Higher average summer temperatures and risk of building overheating during operation [future occupants]

10.33 Higher average summer mean and daily maximum temperatures may lead to building overheating, adversely affecting the health and well-being of occupants.

10.34 As part of the detailed design, a sample of units in buildings will undergo overheating assessment in line with the requirements of Part O of the Buildings Regulations⁸⁷ in order to assess and reduce the risk of summer overheating by taking into account future 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.

10.35 Therefore, higher average summer temperatures and risk of building overheating to occupants is not considered to be significant, and will not be considered further in the EIA or reported in the ES

Effects Likely/Significant

10.36 **Table 10.5** outlines the effects (and associated receptor[s]) that are considered to be likely and significant and therefore will be assessed within the EIA and reported in the ES.

Table 10.5: Potential Likely Significant Effects and Sensitive Receptors

Effect	Receptor(s)	Applicable Stage(s)
GHG Emissions	Global Climatic System	Construction and Operation

Assessment Methodology of Effects Likely/Significant

10.37 The following background surveys/studies have been/will be completed.

⁸⁷ <https://www.gov.uk/government/publications/overheating-approved-document-o>

Table 10.6: Background Surveys/Studies

Survey/Study/Analysis/ Evaluation	Overview	Date of Completion
Completed		
Climate Change Assessment	A review of UKCP18 climate change projections and potential climate change risks (as set out under Technical Baseline above).	June 2024
Pending		
High level review of potential GHG emissions	Estimate of the Proposed Scheme's GHG emission and contextualisation against local and national emissions and carbon budgets.	March 2025

- 10.38 The assessment of greenhouse gas emissions will be undertaken in accordance with IEMA's GHG Assessment Guidance.
- 10.39 The EIA Boundary will form the principal study area for the assessment; however the assessment will include off-site GHG emissions / savings such as those associated with the manufacture and transportation of construction materials, and those associated with the off-site generation (e.g. at a power station) of grid electricity consumed by the operational Proposed Scheme.
- 10.40 The existing Cambridge Halls student accommodation is currently on the EIA Boundary, which will be demolished. The EIA Boundary's current GHG emissions are unknown in quantitative terms and for the purposes of the GHG emissions assessment, baseline GHG emissions from the EIA Boundary are assumed to be zero, an approach that helps ensure a reasonable 'worst-case' scenario regarding the GHG effect of the Proposed Scheme. The demolition of the existing student accommodation will result in GHG emissions; however such emissions are considered to be negligible and therefore will be excluded from the assessment. In addition, a demolition waste management strategy will be prepared as part of the CEMP to ensure that demolition waste is diverted from landfill by appropriate segregation and re-using on site/ recycling where feasible.
- 10.41 The GHG assessment of the Proposed Scheme will consider both the construction and operational stages.
- 10.42 A Whole Life Carbon assessment (WLCA) will be prepared for the Proposed Scheme to estimate the embodied carbon of the key building elements. In addition, an Energy Assessment will be prepared to estimate the operational energy demand of the Proposed Scheme.
- 10.43 GHG emissions from the construction and operation of the proposed buildings will be estimated either using modelled building data or recognised industry benchmarks/targets, for example RIBA 2030 Climate Challenge which sets out targets on embodied carbon and operational energy demand.

- 10.44 In line with IEMA's guidance, GHG emissions resulting from the construction and operation stages of the Proposed Scheme will be evaluated in the context of baseline GHG emissions from the EIA Boundary, local authority's administrative area and UK region, as well as the future carbon budgets proposed for MCC and the UK.
- 10.45 Furthermore, and in accordance with IEMA's guidance, consideration will also be given to the contribution of the Proposed Scheme to a science-based net zero trajectory in line with the 2015 Paris Agreement's 1.5°C pathway.
- 10.46 The assessment of likely significant effects to sensitive receptors will consider the sensitivity of the receptor (on a scale of high, medium, low and negligible), the magnitude of change (on a scale of large, medium, small and negligible), the level of effect on a scale of major, moderate, minor and negligible. The global climate system is the receptor for GHG emissions and is considered highly sensitive in accordance with IEMA guidance.
- 10.47 The significance of the Proposed Scheme's net GHG effect will then be determined by considering the magnitude of its net GHG emissions effect in conjunction with consideration of whether it makes an appropriate contribution to the UK's net zero trajectory, and also using professional judgment.

Limitations and Assumptions

- 10.48 To ensure transparency within the EIA process, the following limitations and assumptions have been identified:
- Activity Data – In estimating construction and operational stage GHG emissions, third party emissions factors and benchmarks may be applied to estimated parameters, including energy demand. These factors and benchmarks may potentially not fully reflect the actual construction and operational performance of the Proposed Scheme, however, the proposed approach is nevertheless considered to represent the best available option at this stage.
 - Emissions Factors – Department for Energy Security and Net Zero (DESNZ) publishes annual projections of the future carbon intensity of electricity supplied by the national grid. These projections can be used to estimate future operational GHG emissions. The DESNZ projections are based on various assumptions including the continued uptake of renewable energy technologies and the closure of fossil fuel power stations which may not fully reflect actual future conditions.

11. Socio-Economics and Human Health

Technical Baseline

- 11.1 As of 2023, Manchester accommodated a total of 457,000 workforce jobs, which is approximately 31% of the 1.48 million jobs recorded in the Greater Manchester (GM) area⁸⁸ as a whole⁸⁹. Some 9,000 people were employed in the construction sector in Manchester; this equates to 2% of total employment, which is lower than the sector's proportionate contribution to the total workforce in GM (5%). Key employment sectors in Manchester include professional, scientific & technical services (accommodating 66,000 jobs, 14% of employment); health (53,000, 12%); business administration & support services (50,000, 11%); and education (42,000, 9%).
- 11.2 Over the year July 2023 – June 2024, the average economic activity rate amongst the working-age (aged 16-64) resident population of Manchester (at 71%) was slightly lower than estimated in GM (at 75%); the rates in both areas were, however, lower than England as a whole (79%)⁹⁰. Working-age employment rates were also lower locally (66%) than the GM (71%) and national (76%) rates. However, it is noted that Manchester also accommodates a larger proportionate population of full-time students aged 16 and older (c. 78,800, accounting for 18% of this age-group locally) than the wider GM area (9%) and England (8%)⁹¹.
- 11.3 As of November 2024, there were circa 26,600 people claiming out-of-work benefits in Manchester principally for the reason of being unemployed⁹², accounting for 6.9% of working-age residents, a higher proportion than in GM as a whole (5.5%) and nationally (4.3%). Analysis of ONS data regarding Jobseeker's Allowance (JSA) claimants⁹³ – a subset of the overall claimant count – indicates that 255 people were specifically seeking employment in construction-related trades in Manchester in November 2024, rising to c. 1,115 at the scale of GM.
- 11.4 The NHS 'Find a GP' online search tool⁹⁴ identifies numerous GP surgeries which are accessible from the EIA Boundary, the closest being Cornbrook Medical Practice (Boundary Surgery). A further 7 GP surgeries are identified within a one-mile radius of the EIA Boundary.
- 11.5 The Office for Health Improvement & Disparities' (OHID) Public Health Outcomes Framework⁹⁵ (PHOF) provides an overview of health outcomes and determinants of physical and mental health in Manchester and GM in comparison to nationally. Key indicators are summarised as follows:
- Average male (75.7 years) and female (79.9 years) life expectancies in Manchester are lower than across GM as a whole (respectively 77.1 and 81.2 years). However, the GM

⁸⁸ 'Greater Manchester' is consistent with the ten local authority districts comprising the Greater Manchester Combined Authority (GMCA).

⁸⁹ ONS via Nomis (2024) Business Register and Employment Survey: 2023.

⁹⁰ ONS via Nomis (2024) Annual Population Survey: July 2023 – June 2024

⁹¹ ONS via Nomis (2023) Census 2021: TS066 - Economic activity status

⁹² ONS via Nomis (2024). Claimant Count: November 2024

⁹³ ONS via Nomis (2024). Jobseeker's allowance: November 2024

⁹⁴ NHS (2024). 'Find a GP' [Online]. Available at: <https://www.nhs.uk/service-search/find-a-gp>

⁹⁵ Office for Health Improvement & Disparities (2024) Public Health Outcomes Framework: Manchester / GM

figure for both men and women is lower than recorded nationally (respectively 79.3 and 83.2 years).

- The adult obesity rate in Manchester (63%) is lower than the rate both in GM (66%) and nationally (64%). Childhood obesity (Year 6) is, however, notably higher in Manchester (44%) than in GM (39%) and nationally (37%).
- Adult physical activity⁹⁶ rates in Manchester (65%) are slightly higher than in GM (64%), but slightly lower than recorded nationally (67%).
- Hospital admissions for alcohol-related conditions are higher in Manchester than in GM and nationally.
- A slightly higher proportion of deaths are attributable to particulate air pollution in Manchester (6.1%) than in GM (5.9%) and England (5.8%).
- The proportion of children (aged under 16) in relative low-income families is higher in Manchester (39%) than in GM (30%) and England (20%).
- The proportion of adults who report feeling lonely 'often or some of the time' in Manchester (31%) is higher than in GM (24%) and nationally (22%).

Proposed Scope of Assessment

- 11.6 The below sets out the proposed scope of assessment based on an understanding of the characteristics of the EIA Boundary, surrounding area and the Proposed Scheme (**Chapter 4**). Where environmental effects are considered unlikely to be 'significant', an appropriate evidence base has been provided to justify the 'scoping out' of these effects ensuring the EIA and ES only assess those effects considered 'likely' to be significant, at this stage.

Effects Unlikely/Not Significant

- 11.7 The following effects are considered unlikely to be significant and therefore will not be considered further within the EIA or reported in the ES. A factual evidence base has been provided below to support this. Where mitigation has been used to inform this judgement, the identified mitigation has been captured within the Preliminary Environmental Management Plan (PEMP) provided in **Appendix 2.1**.

Access to primary healthcare facilities [Proposed Scheme residents and patients at existing local healthcare facilities]

- 11.8 Strong, vibrant, sustainable and cohesive communities require good quality, accessible public services and infrastructure. Access to primary healthcare facilities (e.g. GP services) has a direct beneficial effect on human health and is vital towards ensuring that health outcomes and priorities are achieved.
- 11.9 It is anticipated that the uplift of circa 1,600 new PBSA apartments resulting from the Proposed Scheme (which will deliver a total of up to 2,600 bedspaces, replacing the existing c. 800 bedspaces) will accommodate a net uplift of 1,600 residents (and up to 2,600 in total).

⁹⁶ A physically active person is defined as one who undertakes a minimum of 150 minutes of moderate physical activity per week (e.g. brisk walking; cycling for travel or leisure; playing individual or team sports; gym exercises; gardening).

As outlined within HUDU guidance⁹⁷, the Royal College of GPs recommend a ratio of 1,800 registered patients per (assumed full-time equivalent, FTE) GP is suitable for the planning and commissioning of primary healthcare services. This therefore suggests that the Proposed Scheme could generate an uplift in demand for just under one GP in the locality.

- 11.10 As set out in **Chapter 4**, the Proposed Scheme retains the flexibility to deliver primary mitigation in the form of an NHS healthcare facility that could be accommodated on-site once operational. It is therefore anticipated that the Proposed Scheme would have the capacity meet the uplift in demand that it generates for primary healthcare (GP) services on-site in full if required in the context of existing local healthcare capacity. Under such circumstances, the Proposed Scheme would also be likely to provide a beneficial addition to provision of healthcare infrastructure for other existing and future residents of the surrounding area over the long term, supplementing existing local provision of primary healthcare facilities (as identified in the technical baseline section in relation to the topic of socio-economics and human health).
- 11.11 Whilst likely to generate a beneficial effect through provision of new infrastructure for local communities, the scale of effect is not anticipated to be significant.
- 11.12 Therefore, access to primary healthcare facilities for Proposed Scheme residents and patients at existing local healthcare facilities will not be considered further in the EIA or reported in the ES.

Social cohesion and inclusive design [Proposed Scheme residents, visitors and workers and existing local communities]

- 11.13 Developments should connect with existing communities (e.g. through layouts and access points which avoid physical barriers and severance) and land-uses and spaces should encourage social interaction, taking into account principles of inclusive and age-friendly design.
- 11.14 The EIA Boundary is currently occupied by students within existing PBSA bedspaces. The nature of this type of housing means that residents naturally live in PBSA on short-term contracts, and construction will therefore commence at a point in the academic year to result in minimal impact on and displacement of existing residents; rather construction will be conducted once all existing residents have vacated the building. All construction activities will be in accordance with the Considerate Constructors Scheme.
- 11.15 The EIA Boundary's location immediately to the south of Manchester City Centre adjacent to the Oxford Road corridor (which already accommodates a high density of higher/further education-related facilities and housing and other services for students) will enable coherent integration with existing residential and commercial areas and transport links. The local provision of commercial, leisure and other amenity spaces will therefore be accessible for future site users (i.e. residents, workers and visitors).
- 11.16 Landscaping / open space will be provided on the ground floor through the provision of three distinct courtyards, and open space will also be provided on the sixth floor with areas of biodiverse planting, allotments and a greenhouse. Furthermore, the Proposed Scheme will

⁹⁷ NHS Healthy Urban Development Unit (2009) HUDU Planning Contribution Model: Guidance Notes

include sport provision and student amenity on the rooftops. Overall, these features will contribute to the amenity of residents by delivering spaces to socialise.

- 11.17 Therefore, social cohesion and inclusive design for Proposed Scheme residents, visitors and workers and existing local communities is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Crime reduction and community safety [Proposed Scheme residents, visitors and workers and existing local communities]

- 11.18 Sites should be kept secure during demolition and construction to ensure that potential for crime and anti-social behaviour is minimised. Once operational, developments should incorporate design elements and site management measures to help ‘design out’ crime, to help people feel secure, again minimising the potential for crime and anti-social behaviour.
- 11.19 Site security arrangements during the construction stage will be in line with the requirements set out in the Construction (Design and Management) Regulations 2015⁹⁸ and appropriate levels of security (personnel / CCTV) will be provided.
- 11.20 The design of the Proposed Scheme will be informed by ‘Secure by Design’ principles and appropriate design. Once operational, 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.
- 11.21 Therefore, crime reduction and community safety for Proposed Scheme residents, visitors and workers and existing local communities is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Access to healthy food [Residents of the Proposed Scheme]

- 11.22 Access to healthy and nutritious food can improve diet and prevent chronic diseases related to obesity. Healthy food options should be available and easily accessible to those using and working at new developments to enable and promote healthy lifestyles.
- 11.23 Numerous existing healthy food options will also be accessible from the EIA Boundary; a wide range of options in terms of supermarkets and foodstores are located along the Oxford Road corridor and in Manchester City Centre and surrounds. Local provision includes Oxford Road Co-op (accessible in under 5 minutes’ walk from the EIA Boundary), and a large Asda supermarket is also located within a 20-minute walk (under one mile travel distance) to the south-west from the EIA Boundary at Hulme Retail Park. It is also noted that 450 sqm retail floorspace to be delivered as part of the Proposed Scheme could make an additional contribution towards meeting local needs for access to healthy food, albeit any uses accommodated within this floorspace would be subject to eventual occupiers.
- 11.24 Therefore, access to healthy food for Proposed Scheme residents is not considered to be significant and will not be considered further in the EIA or reported in the ES.

⁹⁸ Secretary of State (2015). Construction (Design and Management) Regulations 2015.

Access to active and sustainable travel options [Proposed Scheme residents, visitors and workers and existing local communities]

- 11.25 Active travel and sustainable travel options should be accessible to those living and working at and otherwise using new developments to enable and promote healthy and sustainable lifestyles, through facilitating physical activity and zero / low emissions transport, such as walking, cycling and public transport options.
- 11.26 The Proposed Scheme is located within a very short walking distance to Oxford Road, a main corridor for Manchester's bus network; it is therefore possible to access direct and connecting services to the rest of the city, GM and beyond. Manchester Piccadilly Station is also located within a 15-20-minute walk (under one mile travel distance) to the east of the EIA Boundary, enabling travel to a wide range of local and national destinations. The train station also has a Metrolink tram stop, which provides links across GM and numerous local bus routes are also accessible from the station.
- 11.27 The Oxford Road corridor is also well-served by active travel infrastructure and accommodates one of city's primary north-south cycle routes. The Proposed Scheme will encourage travel by foot and bike by enhancing public realm within the EIA Boundary and coherent connections to adjacent blocks. There will be no vehicle parking delivered on Site, further encouraging uptake of active travel. Provision for disabled parking will, however, be provided on Higher Chatham Street, and Lower Chatham Street and Cavendish Street, providing access through the EIA Boundary from Higher Cambridge Street.
- 11.28 The Proposed Scheme's location will therefore result in good access to active travel and sustainable travel options for the residential population and will also be accessible to all others working and visiting the EIA Boundary.
- 11.29 Whilst likely to generate a beneficial effect through enhancing the number of residents, workers and visitors for whom active and sustainable travel options are available and through contributing towards an improved environment for existing local communities, the scale of effect is not anticipated to be significant.
- 11.30 Therefore, access to active and sustainable travel options for Proposed Scheme residents, visitors and workers and existing local communities will not be considered further in the EIA or reported in the ES in the context of the topic of socio-economics and human health.
- 11.31 It should be noted that a technical assessment of effects relating to active and sustainable travel options has also been conducted through the consideration of the topic of Transport and Access (see **Chapter 5**).

Access to open space and sports and recreation facilities [Proposed Scheme residents]

- 11.32 Providing secure, convenient and attractive open / green space, public amenity space and facilities for sports and leisure activities can lead to increased levels of physical activity and reduce levels of heart disease, strokes and other ill-health problems that are associated with both sedentary occupations and stressful lifestyles. There is also a growing body of evidence that access to open spaces and facilities for exercise is important in helping to maintain and/or improve mental health⁹⁹.

⁹⁹ NHS Healthy Urban Development Unit (2019) Rapid Health Impact Assessment Tool (4th Edition)

11.33 There are no existing open spaces which will be lost due to the Proposed Scheme. As set out above, the Proposed Scheme will deliver new high quality public realm and open space and recreation facilities. This will include:

- Landscaping / open space provided on the ground floor and first floor within phase 2 through the provision of three distinct courtyards;
- Open space provided on the seventh floor, with areas of biodiverse planting, allotments and a greenhouse; and
- Sport provision and student amenity on the rooftops.

11.34 A range of existing sports and recreation facilities and open spaces are located within the immediate locality of the EIA Boundary – including gyms, indoor and outdoor sports courts and pitches (e.g. Trinity Sports Centre, Sugden Sports Centre and Ardwick PowerLeague) and public green and open space (e.g. Whitworth Park) – which will be available to future Site residents for fitness, leisure and relaxation purposes.

11.35 Therefore, access to open space and sports and recreation facilities for Proposed Scheme residents is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Access to training opportunities [Labour force]

11.36 Employment and income are key determinants of personal and societal socio-economic and physical and mental health and wellbeing, whilst unemployment is known to be a significant contributor to poverty, illness and a reduction in personal and social esteem. New development can improve people's access to training opportunities; for example, through delivering apprenticeships and other employment and training programmes during the construction stage and on-site once operational.

11.37 The Proposed Scheme could deliver opportunities for people to access training (such as apprenticeships and/or placements during construction and at on-site employment uses, which will be dependent on construction contractors and the Proposed Scheme's future occupiers).

11.38 It is, however, considered that these are likely to comprise only a limited proportion of the total jobs supported during the construction and operational stages. As such, whilst a beneficial effect which could help meet local needs for apprenticeship opportunities, their delivery is anticipated to be of a scale which would be unlikely to be significant.

11.39 Therefore, access to training opportunities for the labour force will not be considered further in the EIA or reported in the ES.

Employment generated during the operational stage [Labour force]

11.40 Sustained employment, such as that provided by the operation of businesses and other services, is a key determinant of societal socio-economic health, and provides wider physical and mental health benefits for the worker. Unemployment is known to be a significant contributor to poverty, illness and a reduction in personal and social esteem, and therefore the reduction in unemployment is often held as a key economic objective. New development can improve people's access to employment opportunities, for example, through the opening of new work opportunities at on-site occupiers once operational.

- 11.41 The operations of the Proposed Scheme will deliver new employment opportunities, for example, associated with building management (e.g. concierge, maintenance, cleaning and security) as well as the operations of the NHS healthcare facility and other commercial units (which will be dependent on the Proposed Scheme's future occupiers).
- 11.42 It is, however, understood that the number of jobs created will be small in scale relative to recent employment trends locally. As such, whilst a beneficial effect which could contribute towards creating employment opportunities, their delivery is anticipated to be of a scale which is unlikely to be significant.
- 11.43 Therefore, employment generated during the operational stage for the labour force is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Effects Likely/Significant

- 11.44 **Table 11.1** outlines the effects (and associated receptor[s]) that are considered to be likely and significant and therefore will be assessed within the EIA and reported in the ES.

Table 11.1: Potential Likely Significant Effects and Sensitive Receptors

Effect	Receptor(s)	Applicable Stage(s)
Employment generated	Labour force	Construction
Provision of PBSA	Students requiring accommodation	Operation

Assessment Methodology of Effects Likely/Significant

- 11.45 The following background surveys/studies have been/will be completed.

Table 11.2: Background Surveys/Studies

Survey/Study/Analysis/ Evaluation	Overview	Date of Completion
Completed		
Desk-based study of publicly accessible socio-economic and human health data	Data obtained to understand prevailing socio-economic and human health conditions	January 2025
Pending		
Further desk-based study of publicly accessible socio-economic and human health data related to effects scoped into the assessment	Data obtained to understand prevailing socio-economic and human health conditions	January-February 2025
Economic impact modelling	Exercise to determine net additional economic impact, thereby informing the magnitude of relevant effects	January-February 2025

- 11.46 In the absence of formal guidance, appropriate study areas will be defined, which will be based on an understanding of relevant local and wider economic geographies and a consideration of the extent to which socio-economic and human health effects are likely to be contained therein. A local impact area will be defined to cover the administrative area of Manchester, with a wider impact area then defined to draw in the surrounding GM area. These are established geographical areas that also reflect existing patterns of labour force containment¹⁰⁰.
- 11.47 Best practice and methodological guidance will be drawn upon as appropriate to inform key elements of the assessment, including the Homes and Communities Agency's (HCA, now known as Homes England) Additionality Guide¹⁰¹ and IEMA guidance for the effective scoping of human health¹⁰². Net additional economic impacts of employment will be presented, accounting for a range of economic additionality factors such as leakage¹⁰³, displacement¹⁰⁴ and multiplier effects¹⁰⁵. Provision of PBSA will be considered in the context of current supply and demand for bedspaces in Manchester.
- 11.48 The sensitivity of receptors will be determined by way of observed change in receptors locally compared to local, regional and national trends. Through observation of a receptor's capacity for change relative to wider comparator areas and/or national standards, the sensitivity of receptors locally will be observed. Consideration will also be given to the priority attributed to specific receptors in strategy and policy terms, particularly in the case of qualitative receptors and those where quantitative evidence is not available. The assignment of sensitivity will be based on professional judgement.
- 11.49 Once the sensitivity of the receptor has been identified, the change attributable to the Proposed Scheme will be benchmarked against the observed rate of change in the corresponding social, economic or health-related baseline. This will allow a relative assessment of the magnitude of change that is attributable to the Proposed Scheme to be conducted.
- 11.50 The assessment of likely significant effects to sensitive receptors will consider the sensitivity of the receptor (on a scale of high, medium, low and negligible) and the magnitude of change (on a scale of large, medium, small and negligible) to determine the level of effect on a scale of major, moderate, minor and negligible. Significant effects will be determined following this through professional judgment.

¹⁰⁰ ONS via Nomis (2022) Census 2021

¹⁰¹ Homes & Communities Agency (2014) Additionality Guide (4th Edition)

¹⁰² IEMA (2022) Effective Scoping of Human Health in Environmental Impact Assessment

¹⁰³ The measure of the extent to which impacts (such as employment) will occur outside of the defined local and wider impact areas.

¹⁰⁴ The measure of the extent to which the Proposed Scheme will lead to existing businesses or employees within the defined local and wider impact areas relocating activities to the Proposed Scheme, as opposed to the attraction of new investment and employment arising from the Proposed Scheme.

¹⁰⁵ The measure of further economic activity (such as employment, expenditure or income) associated with supply chain expenditure, additional local income (from employment) and longer-term expenditure effects.

Limitations and Assumptions

11.51 To ensure transparency within the EIA process, the following limitations and assumptions have been identified:

- The assessment is desk-based and therefore reliant on data and information obtained from a variety of official published sources (such as the ONS's 2011 and 2021 Censuses and Business Register and Employment Survey¹⁰⁶). No further verification of these sources will be undertaken (unless otherwise stated in the ES). Each data source has methodological limitations related to data collection and surveys only represent the socio-economic context at a specific point in time.
- The future baseline will draw upon employment forecasts produced by Experian¹⁰⁷. There are known uncertainties to using such trend-based forecasts (especially in the current context of economic uncertainty caused by factors such as inflationary pressures, the cost-of-living crisis and global conflict. However, the use of such forecasts is considered appropriate for drawing conclusions about how the economy and labour market might change in the future.
- Where necessary, professional and realistic assumptions will be made and applied, such as those relating to the economic additionality factors of leakage, displacement and multiplier effects.

¹⁰⁶ ONS via Nomis (2024) Business Register and Employment Survey: 2023

¹⁰⁷ Experian (2025). Local Market Forecasts Quarterly: December 2024

12. Air Quality

Technical Baseline

- 12.1 The EIA Boundary is located in the Manchester Air Quality Management Area (AQMA). The Manchester AQMA is declared due to exceedances of the annual and hourly mean standards of Nitrogen Dioxide (NO₂) and Particulate Matter (PM₁₀) annual and 24 hour mean standards.
- 12.2 The AQMA covers Manchester City Centre, the area around Manchester Airport and the main arterial traffic routes in the city which contribute to local air quality.
- 12.3 **Appendix 12.1** provides the air quality monitoring data for the past five years from 2018 to 2022 operated by MCC, including automatic monitoring stations, a network of passive diffusion tubes and Manchester Clean Air Plan (CAP) diffusion tube monitoring¹⁰⁸¹⁰⁹. The monitoring sites closest to the EIA Boundary include Oxford Road automatic monitoring station and co-located diffusion tube sites, located approximately 300m north east of the EIA Boundary, passive roadside diffusion tube site 112 located approximately 300m south west of the EIA Boundary and CAP roadside diffusion tube sites 120 to 122 on Oxford Road, approximately 200m to the east of the EIA Boundary. At the Oxford Road automatic monitoring site, the NO₂ annual mean concentration recorded in 2022 was 43µg/m³, exceeding the annual mean objective of 40µg/m³. At diffusion tube site 112, the annual mean NO₂ concentration was 22.7µg/m³ which is below the annual mean objective. At the diffusion tube CAP sites 120 to 122, the annual mean concentration ranged from 36µg/m³ to 39.4 µg/m³, below the annual mean objective. The roadside diffusion tube monitoring sites (site 112 and CAP sites 120 to 122) are considered most representative of the EIA Boundary. At these sites, the annual mean NO₂ concentrations are meeting the annual mean objective of 40µg/m³.
- 12.4 A review of the available data from the UK Air Information Resource website¹¹⁰ show that within the EIA Boundary itself there are no exceedances of the NO₂, PM₁₀ or PM_{2.5} annual mean objectives in 2022 and the initial opening year, 2028. The PM_{2.5} concentrations are below the PM_{2.5} interim target of 12 µg/m³ to be achieved by 2028 and the objective of 10 µg/m³ to be achieved by 2040.
- 12.5 Below is a summary of relevant nearby receptors:
- The existing residential receptors at Cavendish Hall of Residence, immediately east of the EIA Boundary;
 - Existing student accommodation receptors to the west of the EIA Boundary along A5067 Higher Cambridge Street, including Cambridge House, Element Manchester, Manchester House and Opal Hall;

¹⁰⁸ Greater Manchester Air Quality Annual Status Reports. Available at: <https://cleanairgm.com/monitoring-reports/> [Accessed: June 2024]

¹⁰⁹ Clean Air Greater Manchester. Available online at: <https://cleanairgm.com/> [Accessed: June 2024]

¹¹⁰ Defra, <http://uk-air.defra.gov.uk> [Accessed June 2024]

- University buildings including Faculty of Business and Law and the Union and School of Digital Arts immediately surrounding the Proposed Scheme to the north and south;
- Pedestrians and cyclists using the EIA Boundary and surrounding area;
- Residential properties, community receptors and open spaces along the proposed construction and operational traffic routes to be defined in the transport assessment; and
- There are no ecological sites within 2km of the EIA Boundary.

Proposed Scope of Assessment

12.6 The below sets out the proposed scope of assessment based on an understanding of the characteristics of the EIA Boundary, surrounding area and the Proposed Scheme (**Chapter 4**). Where environmental effects are considered unlikely to be ‘significant’, an appropriate evidence base has been provided to justify the ‘scoping out’ of these effects ensuring the EIA and ES only assess those effects considered ‘likely’ to be significant, at this stage.

Effects Unlikely/Not Significant

12.7 The following effects are considered unlikely to be significant and therefore will not be considered further within the EIA or reported in the ES. A factual evidence base has been provided below to support this. Where mitigation has been used to inform this judgement, the identified mitigation has been captured within the Preliminary Environmental Management Plan (PEMP) provided in **Appendix 2.1**.

Nuisance and disturbance as a result of dust from demolition and construction activities and Non-Road Mobile Machinery emissions [High and Medium sensitivity receptors within 250m of the EIA Boundary¹¹¹¹¹²]

- 12.8 There is the potential for dust generation from demolition and construction activities, together with exhaust emissions from Non-Road Mobile Machinery (NRMM) associated with the construction of the Proposed Scheme.
- 12.9 The generation of dust and exhaust emissions from NRMM have the potential to result in nuisance and or adverse health effects as a result of the soiling of surfaces; visible dust plumes and elevated PM₁₀ concentrations.
- 12.10 It is anticipated that 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 Construction Environmental Management Plan (CEMP). This CEMP will be informed by the Institute of Air Quality Management (IAQM) guidance¹¹² and would include prevention measures and set out

¹¹¹ For the construction dust assessment, relevant high sensitivity receptors include residential dwellings and educational facilities and relevant medium sensitivity receptors include offices and shops. Receptors are assessed based upon the distance bands set out in the IAQM dust guidance.

¹¹² IAQM (2024) Guidance on the Assessment of Dust from Demolition and Construction <https://iaqm.co.uk/wp-content/uploads/2013/02/Construction-Dust-Guidance-Jan-2024.pdf> [Accessed: June 2024]

requirements for ongoing monitoring and liaison with the local community, and MCC. These tertiary mitigation measures would be considered an integral part of the Proposed Scheme.

- 12.11 In accordance with the IAQM guidance¹¹² notes, it is anticipated that with the implementation of effective site-specific mitigation measures, the environmental effect will not be significant in most cases. Therefore, following the implementation of appropriate mitigation measures, construction dust and emissions from NRMM is not considered to be significant.
- 12.12 An assessment of the risk of potential construction dust impacts, will, however, be undertaken with reference to relevant guidance and reported in an appendix to the ES to set out the appropriate mitigation measures.

Health effects from building emissions during operation [Locations with relevant public exposure¹¹³¹¹⁴]

- 12.13 Emissions to air from combustion plant associated with the operation of the Proposed Scheme may have an adverse effect on local air quality. The energy strategy of the Proposed Scheme will include the use of Air Source Heat Pumps and photovoltaic panels for renewable energy generation. No combustion sources are expected, and therefore the Proposed Scheme is expected not to give rise to on-site emissions to air.
- 12.14 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. The total operational hours are expected to be less than 18 hours per year. It is therefore unlikely to exceed the hourly mean NO₂ objective (200µg/m³ not to be exceeded more than 18 times a year), and further assessment is not required, assuming that the location emergency generator flues will be situated away from air inlets/windows of the Proposed Scheme.
- 12.15 Therefore, emissions from operational plant and the emergency generators are not considered to be significant.

Exposure of residents or users of the Proposed Scheme to poor ambient air quality and local area's emissions [Locations with relevant public exposure¹¹³¹¹⁴]

- 12.16 There is potential for future sensitive receptors as part of the Proposed Scheme to be exposed to poor ambient air quality. The available current and future baseline air quality data indicates that the annual mean NO₂, PM₁₀ and PM_{2.5} concentrations will be below the relevant air quality objectives at the EIA Boundary.
- 12.17 Therefore, future sensitive receptors of the Proposed Scheme are not expected to be exposed to poor air ambient air quality and this effect is not considered to be significant.

¹¹³ Locations where members of the public are likely to be present and exposure over the averaging period of the objective based on the IAQM planning guidance.

¹¹⁴ Institute of Air Quality Management (IAQM) (January 2017) Land-Use Planning & Development Control: Planning For Air Quality <https://iaqm.co.uk/text/guidance/air-quality-planning-guidance.pdf> [Accessed: June 2024]

Effects Likely/Significant

12.18 **Table 12.1** outlines the effects (and associated receptor[s]) that are considered to be likely and significant and therefore will be assessed within the EIA and reported in the ES.

Table 12.1: Potential Likely Significant Effects and Sensitive Receptors

Effect	Receptor(s)	Applicable Stage(s)
Changes to pollutant concentrations resulting from traffic generated by the Proposed Scheme	Existing and proposed sensitive receptors close to roads affected by changes in traffic flows ¹¹⁵	Construction Operation

Assessment Methodology of Effects Likely/Significant

12.19 No baseline air quality monitoring surveys would be required, and baseline data will be gathered from existing sources.

12.20 The following data sources for baseline data will be used in the air quality assessment:

- Manchester City Council's Air Quality Annual Status Report(s)¹⁰⁸;
- Clean Air Greater Manchester¹⁰⁹;
- The UK Air Information Resource website¹¹⁰
- Department for Environment, Food & Rural Affairs (Defra)'s Local Air Quality Management website¹¹⁶; and
- Environment Agency (EA) website¹¹⁷.

12.21 The air quality chapter will consider the impact of the Proposed Scheme during the demolition, construction and operational stages, in terms of the impact on sensitive existing human receptors. Air quality at new sensitive receptors as part of the Proposed Scheme will also be assessed to determine the risk of introducing receptors to poor air quality. Consideration will be given to those locations with relevant exposure to the annual mean objectives (i.e. the student accommodation areas) and the 1-hour mean NO₂ objective (i.e. public realm spaces).

12.22 The assessment will follow guidance contained in the following documents:

- Environment Act 2021¹¹⁸;

¹¹⁵ Residential properties, schools, hospitals, care homes. Specific receptors to be determined once traffic data is available.

¹¹⁶ Defra Local Air Quality Management. Available online at: <https://laqm.defra.gov.uk/> [Accessed: June 2024]

¹¹⁷ Environment Agency – Environmental Permitting Regulations – Installations. Available at: <https://environment.data.gov.uk/public-register/view/search-industrial-installations> [Accessed: June 2024]

¹¹⁸ Environment Act (2021)

- Air Quality (Amendment of Domestic Regulation) (EU Exit) Regulations 2019¹¹⁹;
 - National Planning Policy Framework (NPPF) 2024¹²⁰;
 - Defra's LAQM.PG(22)¹²¹ and TG(22)¹²²;
- 12.23 EPUK/IAQM's Land Use Planning and Development Control: Planning for Air Quality^{Error! Bookmark not defined.}. Construction and/or operational traffic volumes generated by the Proposed Scheme will be provided by the Transport consultants and assessed against the screening criteria detailed in the EPUK/IAOM guidance^{Error! Bookmark not defined.}.
- 12.24 Should the construction and/or operational traffic volumes generated by the Proposed Scheme exceed EPUK/IAOM guidance^{Error! Bookmark not defined.}, a full detailed dispersion modelling assessment would be carried out using the ADMS-Roads atmospheric dispersion model to predict the change in air pollutant concentrations resulting from the construction and/or operation of the Proposed Scheme.
- 12.25 The extent of the operational and/or construction traffic study area would be defined by considering the operational traffic volume data provided against the screening criteria detailed in the EPUK/IAOM guidance^{Error! Bookmark not defined.}.
- 12.26 Considering that there will be no provision for parking on Site, operational traffic movements are expected to be limited.
- 12.27 The assessment of likely significant effects to sensitive receptors will consider the sensitivity of the receptor (on a scale of high, medium, low and negligible) and the magnitude of change (on a scale of large, medium, small and negligible) to determine the level of effect on a scale of major, moderate, minor and negligible.
- 12.28 The assessment of significant effects will be determined using the EPUK/IAQM guidance^{Error! Bookmark not defined.}. Impact descriptors Substantial, Moderate, Slight and Negligible will correspond with Major, Moderate, Minor and Negligible effects, respectively.

Limitations and Assumptions

- 12.29 To ensure transparency within the EIA process, the following limitations and assumptions have been identified:
- Should detailed modelling be required, there are limitations associated with the uncertainty in predicted concentrations. To reduce uncertainty, verification of any air quality dispersion modelling that may occur, will be carried out using existing local air

¹¹⁹ The Air Quality (Miscellaneous Amendment and Revocation of Retained Direct EU Legislation) (EU Exit) Regulations 2018 (SI 2018/1407).The Air Quality (Amendment of Domestic Regulations) (EU Exit) Regulations 2019 (SI 2019/74)

¹²⁰ Department of Levelling Up, Housing and Communities (2024) National Planning Policy Framework

¹²¹ Department for Environment Food and Rural Affairs (Defra) (2022) Local Air Quality Management Technical Guidance (TG22)

¹²² Department for Environment Food and Rural Affairs (Defra) (2022) Local Air Quality Management Policy Guidance (PG22)

quality monitoring. The methodology is designed to provide a robust assessment and reduce uncertainties.

- There are also limitations associated with future emissions predictions. Should detailed modelling be required, a conservative approach following best practice will be undertaken for the appropriate future year to predict realistic worst-case concentrations and the methodology described in detail in the ES Chapter.

13. Noise and Vibration

Technical Baseline

- 13.1 The EIA Boundary is located in an urban setting and is surrounded by a mix of land uses including residential properties, commercial, entertainment and educational. Mancunian Way (Ring Road) or the A5103 and A57(M) are situated approximately 100m to the north of the EIA Boundary. To the west are other PBSA blocks and Barracks. Manchester Metropolitan University educational buildings are located to the east. Entertainment venues in the form of The Salutation Pub and the Manchester Metropolitan University Union are located to the south of the EIA Boundary.
- 13.2 The predominant sources of existing noise and vibration at the EIA Boundary are anticipated to arise from the following:
- Road traffic noise from the local network, including Cambridge Street (which forms the western boundary of the EIA Boundary), Chatham Street (which forms the eastern boundary), Boundary Street West (forming the southern boundary), and to a lesser extent Mancunian Way Ring Road to the north of the EIA Boundary.
- 13.3 Potential sensitive receptors include PBSA residences along Cambridge Street (A5067), as well as nearby Manchester Metropolitan University educational buildings.

Proposed Scope of Assessment

- 13.4 The below sets out the proposed scope of assessment based on an understanding of the characteristics of the EIA Boundary, surrounding area and the Proposed Scheme (**Chapter 4**). Where environmental effects are considered unlikely to be 'significant', an appropriate evidence base has been provided to justify the 'scoping out' of these effects ensuring the EIA and ES only assess those effects considered 'likely' to be significant, at this stage.

Effects Unlikely/Not Significant

- 13.5 The following effects are considered unlikely to be significant and therefore will not be considered further within the EIA or reported in the ES. A factual evidence base has been provided below to support this. Where mitigation has been used to inform this judgement, the identified mitigation has been captured within the Preliminary Environmental Management Plan (PEMP) provided in **Appendix 2.1**.

Disturbance from existing vibration sources [future users of the Proposed Scheme]

- 13.6 Effects of existing vibration on the Proposed Scheme will not be considered, as there are no over- and under-ground trains, trams or any other vibration-creating sources within the vicinity of the EIA Boundary that could have any significant effect on the Proposed Scheme. Therefore, disturbance from existing vibration will not be considered further in the EIA or reported in the ES.

Effects Likely/Significant

- 13.7 **Table 13.1** outlines the effects (and associated receptor[s]) that are considered to be likely and significant and therefore will be assessed within the EIA and reported in the ES.

Table 13.1: Potential Likely Significant Effects and Sensitive Receptors

Effect	Receptor(s)	Applicable Stage(s)
Noise disturbance from demolition and construction activities	Existing Purpose-Built Student Accommodation (PBSA) residences along Cambridge Street (A5067) and Manchester Metropolitan University educational buildings	Construction
Vibration disturbance from demolition and construction activities	Existing Purpose-Built Student Accommodation (PBSA) residences along Cambridge Street (A5067) and Manchester Metropolitan University educational buildings	Construction
Noise disturbance from increased road traffic	Existing PBSA residences along Cambridge Street (A5067) and Manchester Metropolitan University educational buildings	Construction / Operation
Noise disturbance from proposed servicing areas and building services plant	Existing PBSA residences along Cambridge Street (A5067) and Manchester Metropolitan University educational buildings	Operation
Noise disturbance from other proposed uses (e.g., retail, NHS unit, community uses, sports provision, amenity space)	Existing PBSA residences along Cambridge Street (A5067), Manchester Metropolitan University educational buildings, and Future users of the Proposed Scheme	Operation
Disturbance from existing environmental noise	Future users of the Proposed Scheme	Operation

Approach and Methodology

13.8 The following background surveys/studies have been/will be completed.

Table 13.2: Background Surveys/Studies

Survey/Study/Analysis/Evaluation	Overview	Date of Completion
Pending		
Baseline noise survey	A baseline noise surveying of the existing site is due to take place imminently. All future assessments	August & November 2024

Survey/Study/Analysis/ Evaluation	Overview	Date of Completion
	will be based upon these measured data. It is anticipated the external, road-facing frontages of the Proposed Scheme will experience higher noise levels, whereas the internal courtyard facing façades will be screened from the traffic noise sources. From these data, analyses will be undertaken to establish the required acoustic specifications for elements of the façades, i.e. glazed windows, ventilation, external wall, roof, etc. The matter of noise risk associated with overheating and the ability to rely on an openable window will also be assessed, but it is assumed at this stage that the main road-facing frontages will need other forms of ventilation. In addition, suitable plant noise emissions criteria will be developed to ensure compliance with MCC standard planning condition wording, understood to be ‘-5dB below background’.	
13.9	Blackbird Acoustics and Heyda Acoustics are appointed to construct an environmental noise model of the EIA Boundary, which will be used to assess both the impact of construction noise and increases in traffic flow in the area (based on information provided to us by others in relation to construction activities and predicted changes in traffic flow). It will also be used to predict the noise levels incident on the façades of the proposed new residential premises to ensure that the building envelope is specified such that appropriate internal noise levels can be achieved.	
13.10	Blackbird Acoustics is also appointed to undertake assessments of noise emissions to surrounding noise sensitive premises from building services plant, once plant selections for the Proposed Scheme have been made.	
13.11	An assessment of break out from any noise activities will be undertaken where appropriate, with limits set for any tenant areas where the precise activities are as yet unknown.	
13.12	The noise and vibration assessment forming the ES Chapter for the full EIA would be undertaken by Heyda Acoustics (and Blackbird Acoustics) and would include the following: • Identification of existing and future potentially sensitive noise and vibration receptors within, and surrounding the EIA Boundary;	

- Consultation with MCC's EHO to seek agreement on the survey protocol, key sensitive receptors, assessment methodologies and criteria;
- Baseline daytime and night-time noise monitoring at appropriate locations within and around the EIA Boundary. The monitoring protocol and locations will be agreed in advance with the EHO at MCC, and the survey will be carried out in line with the guidance provided in BS 7445:2003 'Description and Measurement of Environmental Noise'¹²³;
- Assessment of temporary noise and vibration effects during the demolition and construction works, in line with BS 5228-1:2009+A1:2014 'Noise and Vibration Control on Construction and Open Sites Part 1 - Noise'¹²⁴ and BS 5228-2:2009+A1:2014 'Part 2 - Vibration'¹²⁵;
- Assessment of the likely significant effects of changes in road traffic noise levels resulting from traffic generated by the completed and operational Development upon existing sensitive receptors surrounding the EIA Boundary. This will be based upon detailed noise predictions carried out in accordance with the Calculation of Road Traffic Noise (CRTN)¹²⁶ memorandum. Regard will also be given to the advice in the Design Manual for Roads and Bridges (DMRB)¹²⁷ for road traffic noise assessment. Advice within DMRB will be used to establish a category of noise effect, which is considered to represent the best available criteria for assessing overall changes in noise levels;
- Specification of appropriate noise limits which future on-site plant installations or specific retail/NHS/community/sports operations should not exceed. These limits will be based on surveyed ambient (L_{Aeq}) and background (L_{A90}) noise levels at local noise sensitive receptors, the guidance contained in BS 4142:2019¹²⁸ and the requirements of MCC. Noise emissions from building plant will be controlled through planning condition and considered during detailed design in order to ensure that operational noise does not exceed a Negligible impact/effect level at sensitive receptors;
- Where likely significant adverse effects from any of the aforementioned sources are identified, consideration will be given to appropriate mitigation measures in safeguarding amenity and ensuring compatibility with adjoining land uses; and

¹²³ British Standards Institute "BS 7445 - Description and Measurement of Environmental Noise. Part 2: Guide to the Acquisition of Data Pertinent to Land Use", BSi, London, 2003

¹²⁴ British Standards Institute, "BS 5228-1:2009+A1:2014 – Code of practice for noise and vibration control on construction and open sites. Part 1: Noise", BSi, London, 2014

¹²⁵ British Standards Institute, "BS 5228-2:2009+A1:2014 – Code of practice for Noise and Vibration control on construction and open sites. Vibration, BSi, London", BSi, London, 2014

¹²⁶ Department of Transport/Welsh Office, "Calculation of Road Traffic Noise", BSi, London, 1998

¹²⁷ Highways England, "Design Manual for Road and Bridges Sustainability & Environment Appraisal LA 111 Noise and Vibration", BSi, London, 2020

¹²⁸ British Standards Institute, "BS 4142 - Methods for rating and assessing industrial and commercial sound", BSi, London, 2019

- Although not strictly part of an EIA, assessment of the suitability of the EIA Boundary for the residential amenity against relevant and credited guidance (NPPF¹²⁹ ProPG¹³⁰, BS 8233:2014¹³¹, WHO 1999¹³² and ADO¹³³ for noise and BS 6472:2008¹³⁴ for vibration). Due regard will also be given to proposed external amenity areas.

13.13 The assessment of likely significant effects to sensitive receptors will consider the sensitivity of the receptor (on a scale of high, medium, low and negligible) and the magnitude of change (on a scale of large, medium, small and negligible) to determine the level of effect on a scale of major, moderate, minor and negligible. Significant effects will be determined following this through professional judgment.

Limitations and Assumptions

13.14 To ensure transparency within the EIA process, the following limitations and assumptions have been identified:

- Prediction and modelling of sound levels will always have an associated degree of uncertainty. Whilst best endeavours have been made to minimise that uncertainty in this work, it is unavoidable that some remains.
- In addition, any measurement of existing ambient or background baseline sound levels will be subject to a degree of uncertainty. Environmental sound levels vary between days, weeks, and throughout the year due to variations in source levels and conditions, meteorological effects on sound propagation and other factors. Hence, any measurement survey can only provide a sample of the ambient levels. Every effort is made to ensure that measurements are undertaken in such a way as to provide a representative sample of conditions, such as avoiding periods of adverse weather conditions. However, a small degree of uncertainty will always remain in the values taken from such a measurement survey.
- The measured $L_{A90,T}$ background noise level is used to define design criteria for fixed plant associated with operation of the proposed development. Background noise levels may change in the period between the survey and the opening year; however, as the $L_{A90,T}$ background noise level is a statistical value based on a range of measured noise data, it is not possible to predict future background noise levels with any degree of accuracy. It is considered that background noise levels are unlikely to reduce in the intervening period between the baseline survey and the projected opening year. Consequently, it is considered that the derived plant noise criteria provide suitable noise thresholds for future scenarios.

¹²⁹ British Standards Institute, "BS 4142 - Methods for rating and assessing industrial and commercial sound", BSi, London, 2019

¹³⁰ Association of Noise Consultants/ Institute of Acoustic/ Chartered Institute of Environmental Health, "Professional Practice Guidance: Planning and Noise", 2017

¹³¹ British Standards Institute, "BS 8233 – Guidance on sound insulation and noise reduction for buildings", BSi, London, 2014

¹³² World Health Organisation, "Guidelines for Community Noise", WHO, 1999

¹³³ HM Government, "Approved Document O – Overheating", His Majesty's Stationery Office, 2021

¹³⁴ British Standards Institute, "BS 6472 - Guide to evaluation of human exposure to vibration in buildings (1 Hz to 80 Hz)", BSi London, 2008

14. Approach to the Assessment of Cumulative Effects

Overview

- 14.1 This chapter establishes the methodology for the assessment of cumulative effects arising from the Proposed Scheme.
- 14.2 The EIA Regulations, through Schedule 4, Paragraph 5e and Regulation 4, Paragraph 2, requires the consideration of the culmination of effects with other “*existing and/or approved projects*”, as well as the interaction between effects identified at the project level.
- 14.3 To accord with the EIA Regulations and best practice guidance, the following types of cumulative effects will be considered within the EIA:
- **Effect interactions** (to accord with Regulation 4, Paragraph 2): the interactions and combination of environmental effects of the Proposed Scheme affecting the same receptor, either within the EIA Boundary or in the local area; and
 - **In-combination effects** (to accord with Schedule 4, Paragraph 5(e)): the interaction and combination of environmental effects of the Proposed Scheme with other existing or approved project (s) affecting the same receptor (hereinafter referred to as ‘Cumulative Projects’).

Assessment Methodology

- 14.4 There is no widely accepted current methodology or best practice for the assessment of cumulative effects for projects under The Town and Country Planning (EIA) Regulations 2017 (as amended). However, it is acknowledged that guidance on the approach to the assessment of in-combination cumulative effects for projects that fall under the Nationally Significant Infrastructure Project (NSIP) regime has been issued by the Planning Inspectorate¹³⁵. However, as this is focused on NSIPs, it is not necessarily applicable to all projects / sectors.
- 14.5 Given this, the proposed assessment methodology set out below is based on the principles of the Planning Inspectorate guidance, an understanding of the receptors to be assessed through the ES, the nature of the Proposed Scheme, and professional judgement drawing on previous experience and knowledge at Turley.
- 14.6 The assessment of cumulative effects, for both effect interactions and in-combination effects, will be largely qualitative in nature. For some technical topics, quantitative data may be available (e.g. where modelling work is undertaken), facilitating a quantitative

¹³⁵ Planning Inspectorate (2019) Advice Note Seventeen: Cumulative Effects assessment relevant to nationally significant infrastructure projects (Version 2). Available online - <https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/advice-note-17/>

analysis of cumulative effects. Where quantitative analysis is possible, it will be fully detailed within the assessment in the ES.

- 14.7 In cases where information is not available, assumptions will be made based on professional judgement and clearly stated alongside any uncertainty as part of the assessment.

Effect Interactions

- 14.8 The assessment of effect interactions will follow a two-stage process, as follows.

Step 1 – Identification of potential effect interactions

- 14.9 The assessment of effect interactions will consider the changes from baseline condition at common sensitive receptors, because of the Proposed Scheme.

- 14.10 Common sensitive receptors will be those that are assessed within two or more technical effects assessments provided within the ES. The assessment will be focused on residual effects only (i.e. following the implementation of scheme specific mitigation).

- 14.11 In order to identify where a potential common receptor is present, the receptors assessed through the ES will be categorised into the 'factors' outlined in Regulation 4, Paragraph 2 (and expanded on in Schedule 4, Paragraph 4) of the EIA Regulations. These are as follows:

- Population and human health.
- Biodiversity (for example fauna and flora).
- Land (for example land take).
- Soil (for example organic matter, erosion, compaction, sealing).
- Water (for example hydromorphological changes, quantity and quality).
- Air.
- Climate (for example greenhouse gas emissions, impacts relevant to adaptation).
- Material assets.
- Cultural heritage, including architectural and archaeological aspects.
- Landscape

- 14.12 A matrix of residual effect interactions will be formulated in the ES corresponding to the construction and operational stages of the Proposed Scheme.

- 14.13 The threshold for inclusion within the matrices will be set at a 'minor' level of effect as this is considered to address the potential for a number of residual effects that are not necessarily considered to be 'Significant' in isolation to become 'Significant' when they are considered collectively on a common sensitive receptor.

14.14 Where, through the application of the matrices, potential effect interactions are not identified, in that no specific common receptor(s) is identified, then it will be concluded that there are no effect interactions identified.

14.15 Where potential effect interactions are identified, a qualitative assessment will then be undertaken for the relevant receptor categories through Step 2 below.

Step 2 – Qualitative appraisal

14.16 The qualitative assessment will include the following:

- Clear identification of specific receptor(s) considered for each effect ‘contributing’ to a potential effect interaction to understand the common receptor (and their attributes, such as location etc.).
- An appraisal where there are specific common receptors, considering.
- Magnitude of change (or impact) of each residual effect;
- Sensitivity (or value, importance, etc.) of the receptor / receiving environment to change;
- Duration (of the effects individually and collectively utilising the short / medium / long-term criteria set out in **Chapter 2**) and reversibility of the effect;
- If the effects are temporary and / or permanent;
- If the effects are experienced / occur concurrently or sequentially; and / or
- The geographical / spatial extent of the individual effects.

14.17 An overall qualitative assessment of the cumulative effects on the identified receptor categories will; then be made using the information contained within this ES and supporting appendices in **Volume 2** (where appropriate), and professional judgement.

14.18 Where possible, a conclusion on effect interactions will be provided discussing the likelihood of the effect interactions being ‘Significant’ or ‘Not Significant’.

In-Combination effects

14.19 The assessment of potential in-combination effects will be undertaken using the methodology outlined below.

Step 1: Identification of Projects for Consideration

14.20 In order to identify relevant projects (referred to as ‘Cumulative Projects’) that could give rise to in-combination effects within the Proposed Scheme, a review of the following sources has been undertaken:

- MCC’s online register of projects¹³⁶;

¹³⁶ This search has also been informed by using LandStack.

- Planning Inspectorate online register of projects¹³⁷;
- Transport and Works Order Act online register of projects¹³⁸; and
- Parliament Hybrid Bills online register¹³⁹.

14.21 In line with the EIA Regulations, this search has focused on projects and therefore is not inclusive of sites allocated within local plans, core strategy documents or supplementary planning documents.

14.22 In line with Planning Inspectorate Advice Note Seventeen, criteria and professional judgment have been used to determine whether to include or exclude projects from further assessment (i.e. apply proportionality), informed by aspects such as temporal scale, nature of development and other factors.

14.23 As such, the search has been focused on projects within 1km of the EIA Boundary, acknowledging the maximum extent of likely receptors and nature of effects to be reported within the ES.

14.24 The following additional criteria has also been used to define the list of Cumulative Projects:

- Applications dating from June 2019 onwards. It is anticipated that applications prior to this date will already have been built out (and therefore form part of the baseline) and / or where subsequent applications have been submitted these would be captured within the search dates;
- Applications that have been submitted, consented/granted planning permission, or part implemented;
- Applications that have been refused but are subject to an undetermined appeal;
- Projects of a pertinent scale, which has been determined using professional judgment but informed by their scale, perceived impact, or complexity, and are present near the EIA Boundary¹⁴⁰.

14.25 A further search will be undertaken 8 weeks prior to the finalisation of the assessment of cumulative assessment as part of the ES. This is to ensure there is sufficient time for them to be considered and incorporated within any studies / evaluation / modelling that may underpin the assessments within the ES (e.g. visualisations).

¹³⁷ <https://infrastructure.planninginspectorate.gov.uk/projects/register-of-applications/>.

¹³⁸ <https://www.gov.uk/government/collections/twa-inspector-reports-and-decision-letters>.

¹³⁹ <https://www.parliament.uk/business/bills-and-legislation/current-bills/hybrid-bills/>.

¹⁴⁰ Informed by the definition of major development by NPPF; the definition of Schedule 1 and Schedule 2 developments set out within the EIA Regulations; and developments that do not fall into the above but have notable implications due to location or scale.

14.26 The resulting Cumulative Projects that will be considered and appraised in the assessment of cumulative effects using the methodology and criteria set out above is provided within **Table 14.1** and shown on **Figure 14.1**.

Table 14.1: Cumulative Projects for Assessment of In-combination Effects

Ref.	App. Reference / Project Name	Description	Distance from Site	EIA?	Status
1	128485/FO/2020 All Saints Park, Manchester	Full Planning Permission for the refurbishment and expansion of All Saints Park public realm and surrounding streets including flexible use for temporary events, activities and pop-up retail (Use Classes E(a) and E(b)) facilities; works to include: the demolition of targeted areas of the existing stone wall and railings; removal of three existing trees and replacement tree planting and soft landscaping; installation of new drainage scheme; installation of lighting columns, wayfinding signage and other street furniture; provision of a redesigned memorial garden; provision of cycle parking and accessible car parking bays; highways and servicing access works, including the closure of parts of Higher Ormond Street, Lower Ormond Street and Cavendish Street to traffic through a stopping-up order; and, associated works.	75m east	No	Under construction
2	130387/FO/2021 The Former Gamecock Public House, Boundary Lane	Erection of a part 7, part 9 storey purpose built student accommodation building comprising 146 bed spaces (Sui Generis use class) with ancillary amenity space, a ground floor community hub (proposed for Use Classes F2(b), E(b), E(3), E(f)) and associated landscape works and infrastructure.	200m southwest	No	Approved
3	136043/FO/2023 Land Bounded By River Street To The North, Plot 10B To The	Erection of 13-storey office building (Use Class E) with associated public realm, external roof terraces (floors 11	250m northwest	Yes	Under construction

Ref.	App. Reference / Project Name	Description	Distance from Site	EIA?	Status
	East, Hulme Street To The South And The Development Plot 9A To The West	and 12) and other associated works including external amenity spaces (Plot 10A).			
4	138831/FO/2023 Plot 11 Block C, First Street South, Manchester	Erection of a ground plus 28-storey building plus plant level, comprising purpose-built student accommodation (PBSA -Sui Generis) and other associated works including public realm, secure cycle parking and servicing arrangements.	265m northwest	Yes	Under construction
5	125573/FO/2019 Plot 11, First Street, Manchester	Construction of four buildings of heights varying from 10 storeys to 45 storeys together comprising Co-living bedspaces (use class sui generis) and associated amenity facilities, with ground floor commercial units (Use classes A3 (Café / Restaurant and D2 (Gym)), private amenity space and public realm comprising hard and soft landscaping, car parking and cycle facilities and other associated works.	270m northwest	Yes	Under construction
6	134288/FO/2022 No. 3 Circle Square, Manchester	Erection of 15 storey building comprising office space (Use Class E(g)(i)) and ancillary flexible commercial uses (Use Class E), rooftop terrace, highway works, landscaping, and other associated works	280m northeast	Yes	Under construction
7	136170/FO/2023 Plot 10A Of the First Street Masterplan, Manchester	Erection of 14-storey building comprising purpose-built student accommodation (PBSA) (Sui Generis) and ground floor Food Hall (Sui Generis Use), and other associated works including external amenity spaces, public realm,	350m northwest	Yes	Under construction

Ref.	App. Reference / Project Name	Description	Distance from Site	EIA?	Status
		secure cycle parking, access and servicing arrangements (Plot 10B).			
8	132600/FO/2021 Plot 9 First Street Manchester	Erection of a nine-storey building with rooftop plant and basement comprising office accommodation (Use Class E(c)) with ancillary facilities for occupiers including roof top terrace, winter gardens, gym/ yoga studio, basement car parking (26 spaces) and cycle parking (130 spaces) landscaping and other associated works.	380m northwest	No	Under construction
9	137401/FO/2023 Land Between Upper Brook Street, Kincardine Road And Grosvenor Street Manchester	Full planning application for the demolition of existing buildings and erection of three ground floor + 12/14/29 storey buildings to be used for Purpose Built Student Accommodation (Use Sui Generis), comprising 983 bedrooms in total and 506sqm of ground floor ancillary uses (café/commercial and convenience store - Use Classes E (a)/(b)/(c)), three buildings comprising ground floor + 5/7/9 storeys for Science and Innovation uses (Use Class E (g)(i) & (ii)) and 834sqm ground floor community uses (retail/ cafés and medical facility (Use Classes E (a)/(b) and (e)), and the provision of new public realm, two new public squares, new access and parking, and associated works.	430m east	Yes	Approved
10	135419/FO/2022 One Medlock Street	Demolition of the existing hotel building and structures and redevelopment of the site to comprise two separate buildings: one 13 storey office building with commercial unit (Use Class E) at ground floor; a part 11, part 38 storey building comprising 1,014 purpose built student	450m northwest	Yes	Under construction

Ref.	App. Reference / Project Name	Description	Distance from Site	EIA?	Status
		accommodation units (sui generis) with ground floor office/community uses (Use Class E, F1 or F2); and associated ancillary internal and external amenity space, hard and soft landscaping and associated highway works.			
11	138808/FO/2023 Car Park At Junction Of Charles Street And York Street, Manchester	Erection of 15-storeys plus plant level building to provide purpose-built student accommodation (PBSA - Sui Generis) along with site preparation works, works over the public highway and other associated works.	470m northeast	Yes	Approved
12	138805/FO/2023 Hotspur Press, Gloucester Street	Partial demolition of the former Hotspur Press Complex (Medlock Mill) and redevelopment of the site to provide Purpose Built Student Accommodation (Sui Generis Use Class) above ground floor commercial or community uses (Use Classes F(e), F2(a)(b) and E(b)), within a part 4/5-storey and part 37-storey building plus roof parapet level above basement level, associated ancillary internal and external amenity space, public realm (including a new public square), hard and soft landscaping and associated highway works.	470m northwest	Yes	Awaiting decision
13	128002/FO/2020 One City Road, Manchester	Full Planning Application for demolition of existing structures on site, erection of one 11-storey plus basement office building (Use Class E) and one 14-storey plus basement office building with ground floor commercial unit (Use Class E), landscaping, highways works, and associated works.	500m northwest	No	Under construction

Ref.	App. Reference / Project Name	Description	Distance from Site	EIA?	Status
14	137399/FO/2023 Land Bounded By Upper Brook Street, Cottenham Street & Kincardine Road Manchester	Erection of a 6 to 9 storey building for Sci-Tech use (Use Class E (g)(ii)) and 265sqm of a cafe/bar (Use Class E (b)), and a 9 to 23 storey building for Purpose Built Student Accommodation (PBSA) (Use Sui Generis), comprising 737 bedrooms and 293sqm of community use (Use Class F2 (b)) and 80sqm of commercial floorspace (Use Class E), alongside new public realm, access, parking, and associated works following demolition of existing buildings.	550m east	Yes	Approved
15	136934/FO/2023 Greenheys Building, Pencroft Way	Erection of 7-storey building including a full plant level; comprising office and laboratory floorspace (Use Class E); associated cycle parking, hard and soft landscaping, access and servicing and other associated works.	580m south	No	Approved
16	129273/FO/2021 34 Great Jackson Street, Manchester	Demolition of existing structures and the construction of two residential buildings of 56 storeys (plus basement and roof plant) (use class C3), with ground floor commercial uses (use class E), car parking, cycle provision, landscaping, access and other associated works.	620m northwest	Yes	Approved
17	132199/FO/2021 Plot F Great Jackson Street Manchester	Full planning permission for the demolition of existing structures and the erection of two 51-storey residential buildings (Use Class C3) across two phases, including residential amenity facilities, basement car parking, landscaping and public realm, servicing and access arrangements, highways alterations, and associated works.	655m northwest	Yes	Under construction

Ref.	App. Reference / Project Name	Description	Distance from Site	EIA?	Status
18	139715/FO/2024 Viadux Phase 2	Full Planning Permission for the phased construction of 2 buildings to include: a tall mixed-use building to include residential (Use Class C3) and hotel with associated bars and restaurant (Use Class C1) (Plot 2a), a second tall building with residential accommodation (Use Class C3) with flexible commercial units (Use Class E) (Plot 2b), landscaping and public realm, servicing, drainage and access arrangements, highways alterations, and other associated works.	700m northwest	Yes	Awaiting decision
19	137227/FO/2023 Plot D, Great Jackson Street	Full planning permission for the demolition of existing structures and the erection of one residential building to a height of 71 storeys comprising 642 homes (Use Class C3) with food and drink uses (Use Class E) and / or drinking establishment (Sui Generis); and one office building (Use Class E); with basement car parking, cycle parking, landscaping and public realm, servicing and access arrangements, highways alterations and associated works.	760m northwest	Yes	Awaiting decision
20	124972/FO/2019 Mayfield Phase 1	Phased creation of circa 2.4 ha (6 acres) of public park, including hard and soft landscaping and new bridges across the River Medlock; erection of 9 storey office development above basement with mezzanine and plant level (Class B1) with ground floor Class A1 (Shop), A2 (Financial and Professional Services), A3 (Café and Restaurant), A4 (Drinking Establishment) B1 (Office) uses, rooftop amenity spaces and terrace levels, associated public realm and riverside walkway; erection of 11 storey	780m northeast	Yes	Under construction

Ref.	App. Reference / Project Name	Description	Distance from Site	EIA?	Status
		Multi-Storey Car Park to provide 581 car parking spaces with associated landscaping; highways and infrastructure works including the creation of new junction from London Road to provide access to the multi-storey car park (MSCP) (Use Class Sui Generis); works to Baring Street, stopping up of Bond Street and Nether Street (alongside associated Traffic Regulation Orders to manage unrestricted parking to Buxton Street, Berry Street and Travis Street (to be delivered and implemented prior to the MSCP becoming operational)) alongside enabling works comprising phased demolition and site clearance, earthworks including re-profiling and construction of retaining walls for the land bounded by the Mancunian Way to the south, Mayfield Depot to the north, Baring Street to the west and Hoyle Street to the east			
21	126308/FO/2020 2-4 Whitworth Street West, Manchester	The demolition of 2 to 4 Whitworth Street West and the construction of a mixed-use building, comprising flexible units for retail, food and drink use at ground floor level with a hotel at upper storeys, together with associated landscaping, servicing, cycle parking and other associated works.	800m northwest	No	Approved
22	137226/FO/2023 Part Of Plot C And Plot E, Great Jackson Street	Full planning permission for the demolition of existing structures and the phased construction of four residential buildings (two at 47 storeys and two at 51 storeys) to provide 1,746 homes (Use Class C3), flexible commercial, leisure, food and drink uses (all Use Class E) and / or	800m northwest	Yes	Awaiting decision

Ref.	App. Reference / Project Name	Description	Distance from Site	EIA?	Status
		drinking establishment (Sui Generis), basement car parking, cycle parking, landscaping and public realm, servicing and access arrangements, highways alterations and associated works.			
23	136874/FO/2023 Echo Street, Manchester	Erection of 3 interlinked towers ranging from 27, 21 and 16 storeys together with intermediary link buildings (15 and 11 storeys) to form Purpose Built Student Accommodation (Sui Generis) with associated amenity space and external landscaping and other associated works.	810m northeast	Yes	Under construction
24	125804/FO/2019 325 - 327 Deansgate, Manchester	Demolition of existing buildings and structures on-site and erection of 22-storey building comprising apart-hotel (Use Class C1) with flexible commercial uses at ground floor and within existing viaduct arches (Use Class A1, A2, A3, A4, D2), access, landscaping and other associated works.	850m northwest	Yes	Under construction
25	135565/FO/2022 Great Northern Warehouse, Deansgate	Demolition of the central atrium, car park ramps, and other elements, retention of casino (Sui Generis), bowling alley and existing food and drink unit (Use Class E) alongside to allow refurbishment, restoration and re-use of the Great Northern Car Park to provide office accommodation, retail and/or food and drink uses (Use Class E) and ancillary areas; and Refurbishment, restoration, partial demolition and erection of a 3-storey extension to Deansgate Terrace (northern section) and Goods Yard Entrance to form office, retail and / or food and drink use (Use Class E) and drinking establishments /	860m northwest	Yes	Awaiting decision

Ref.	App. Reference / Project Name	Description	Distance from Site	EIA?	Status
		hot food takeaway (Sui Generis), with associated public realm works comprising the reconfiguration of Great Northern Square and the introduction of additional public realm with associated hard and soft landscaping, highways works, access and servicing facilities, rooftop plant and other associated works; and Partial demolition of the existing leisure box to erect three residential buildings (ground plus 16, 27 and 34 storeys) to provide 746 residential apartments (Use Class C3), reconfiguration of existing car parking together with the creation of office, retail and / or food and drink use (Use Class E), or Sui Generis (drinking establishments / hot food takeaway) at ground floor and level 3, hard and soft landscaping, together with highways works, access and servicing facilities, rooftop plant and other associated works; and, External alterations and restoration of Deansgate Terrace (southern section) to provide office, retail or food and drink use (Use Class E) or Sui Generis (drinking establishments / hot food takeaway / live music venue), along with delivery of associated public realm, highways works, plant, and associated works			
26	127486/FO/2020 Baring Street, Manchester	Construction of a 7,11,14 storey building with roof top plant area and basement, comprising office use (Use Class B1) with external terraces above ground floor commercial units (Use Classes A1 and A3); new public realm and landscaping, cycle parking; external plant, access,	930m northeast	No	Awaiting decision

Ref.	App. Reference / Project Name	Description	Distance from Site	EIA?	Status
		servicing and work to the highway (Baring Street) and other associated works.			

Step 2: Assessment of In-combination Effects

- 14.27 The assessment of in-combination effects will take into consideration available documentation submitted in support of the application for the above Cumulative Projects, to conclude if common receptors are present between the Proposed Scheme and the Cumulative Projects and the extent of any in-combination effect. Where suitable information is not available, either professional judgement will be used to determine the cumulative effects or limitations will be set out.
- 14.28 The in-combination assessment will focus on the technical topic / effects 'scoped in' (i.e., reported within the ES).
- 14.29 The evaluation at the receptor level will consider the following:
- Magnitude of change (or impact) in the relevant technical assessments;
 - Sensitivity (or value, importance, etc.) of the receptor / receiving environment to change; and / or
 - Duration and reversibility of effect.
- 14.30 Through a combination of the evaluation and mitigation presented, conclusions will be drawn as to the likelihood for in-combination effects, their nature (i.e., adverse or beneficial), whether these are 'Significant' or 'Not Significant' and how such effects differ from those reported for the Proposed Scheme. In some cases, how the Proposed Scheme contributes to the overall in-combination effect will also be considered.

15. Summary of EIA Scoping Report

15.1 **Chapter** Technical Topics which are Not Significant⁵ identified a number of technical topics for which no likely or significant effects have been identified and are proposed to be 'scoped out' of the EIA and not reported in the ES, based on the technical evidence base provided. These are as follows:

- Archaeology;
- Biodiversity;
- Water Environment;
- Ground Conditions and Contamination;
- Transport and Access
- Lighting;
- Major Accidents and/or Disasters; and
- Waste.

15.2 The technical topics proposed to be 'scoped in' (see **Technical Chapters 6 – 13**) are as follows:

- Townscape and Visual;
- Built Heritage;
- Wind;
- Daylight, Sunlight, and Overshadowing;
- Climate Change;
- Socio-Economics and Human Health;
- Air Quality; and
- Noise and Vibration;

15.3 **Table 15.1** provides a summary of all the technical topics and effects considered unlikely / not significant and therefore 'scoped out' as well as the topics and likely significant environmental effects 'scoped in' that will be considered further within the EIA and reported in the ES.

Table 15.1: Summary of Likely Significant and Not Significant Effects

Technical Topic Area	Effects which are Not Significant	Likely Significant Environmental Effects
Archaeology	Loss or damage of archaeological heritage assets during the construction stage	-
Biodiversity	Habitat Loss from Site clearance and construction activities [Priority Habitats]	-
	Disturbance and displacement from construction activities [bats and birds]	
	Pollution from construction activities [habitats]	
	Fragmentation due to construction of Proposed Scheme	
	Mortality from construction activities [bats and birds]	
	Light Pollution from construction lighting	
	Ongoing disturbance from increased human activity during operation [bats and birds]	
	Light pollution from operational lighting [bats]	
	Noise pollution from operational uses [bats and birds]	
	Habitat alteration during operation	
	Barriers to movement from increased massing of the EIA Boundary during operation	
	Increased predation risks [birds]	
	Waste and litter generated during operation [protected species]	

Technical Topic Area	Effects which are Not Significant	Likely Significant Environmental Effects
Water Environment	Increased risk of surface water flooding during construction and operation [construction workers and future users of the Proposed Scheme and offsite receptors] Impacts to water quality during construction Impacts to groundwater Changes in land stability Increased potable water demand Increased foul water flows	-
Ground Conditions and Contamination	Potential release of existing ground contamination and accidental release of new contamination during construction and operation [construction workers, future site users and surrounding human health receptors] Potential release of existing contamination and accidental release of new contamination during construction and operation [Underlying Principal Aquifer, Secondary A Aquifer] Impact on geology and ecology during construction and operation [Nationally designated areas] Potential release of hazardous ground gases during construction and operation [Site end users, Site maintenance workers, surrounding human receptors] Risk of unexploded ordnance (UXO) during construction and operation [construction workers, Site users, surrounding human receptors]	-

Technical Topic Area	Effects which are Not Significant	Likely Significant Environmental Effects
	Encountering unstable ground conditions during construction and operation [construction workers, Site users]	
	Presence of asbestos during construction and operation [construction workers, Site users, surrounding human receptors]	
Transport and Access	Severance as a result of construction and operational stage traffic on Road Users	-
	Delay as a result of construction and operational traffic on Road and Pedestrian Transport Users, Pedestrians and Cyclists	
	Changes to non-motorised user amenity as a result of construction and operational traffic on Pedestrians and Cyclists	
	Fear and intimidation as a result of construction and operational traffic on Pedestrians and Cyclists	
	Changes to road safety as a result of construction and operational traffic on Road Users	
	Impacts of hazardous loads as a result of construction and operational traffic on Road Users	
Lighting	Disturbance due to obtrusive light during construction [nearby residents]	-
	Disturbance to residential receptors due to obtrusive light during operation [nearby residents]	
Major Accidents and/or Disasters	A major accident caused by ground subsidence and associated structural/building collapse	-
	Major flood event caused by an extreme weather event	

Technical Topic Area	Effects which are Not Significant	Likely Significant Environmental Effects
	Major accidents on the local road network	
	Accidents arising from fire, arson, vandalism or terrorism	
	Major accident as a result of UXOs	
Waste and Resources	Waste generation during demolition and construction [waste facilities]	-
	Waste generated during operation [waste facilities]	
Townscape and Visual	Changes to townscape and visual environment during demolition and construction [all townscape and visual receptors]	Changes to visual amenity [Open Space Users in All Saints Park]
	Changes to townscape character of: TCA1 – University Buildings, Living and Ancillary Uses; and TCA2 – Hulme Residential Area during operation	
	Changes to visual environment for visual receptors beyond 1km from the EIA Boundary	
	Changes to visual environment for some visual receptors within 1km of the EIA Boundary during operation]	
	Changes to private visual amenity due to the introduction of the Proposed Scheme during operation [private residential places]	
Built Heritage	Change within the setting of designated heritage assets during construction and operation [Former Grosvenor Picture Palace, and Adult Deaf and Dumb Institute (Former)]	Change within the setting of a designated heritage asset [Former Manchester Ear Hospital; Roman Catholic Church of St Augustine; Ormond Building; Righton Building; Grosvenor Building; and Former Town Hall]

Technical Topic Area	Effects which are Not Significant	Likely Significant Environmental Effects
		Façade to Mabel Tylecote Building (all grade II listed buildings)] Change within the setting of a non-designated heritage asset [Salutation Public House]
Wind	-	Altered wind safety conditions [Pedestrians and cyclists in external public areas on-Site and in the immediate surroundings] Altered wind comfort conditions [Pedestrians and cyclists in external public areas on-Site and in the immediate surroundings]
Daylight, Sunlight, and Overshadowing	Increased solar glare [Cambridge Street Junction slip roads from Mancunian Way] Availability of internal daylight and sunlight levels [Proposed residents]	Reduced daylight and sunlight amenity Increased overshadowing
Climate Change	Increasing summer mean and daily maximum temperatures and influence on human health during construction [construction employees] Changing annual temperatures / rainfall patterns and changes to air quality during construction and water supply, flood risk during construction and operation [site operations, infrastructure, construction employees and future occupants] Changes to future climate including temperature and rainfall and risk to building infrastructure and future occupants during operation [building infrastructure and future occupants]	GHG Emissions (construction and operation)

Technical Topic Area	Effects which are Not Significant	Likely Significant Environmental Effects
	Changes to future climate and resilience of site habitats and species during operation [habitats and species]	
	Higher average summer temperatures and risk of building overheating during operation [future occupants]	
Socio-Economics and Human Health	Access to primary healthcare facilities [Proposed Scheme residents and patients at existing local healthcare facilities]	Employment generated
	Social cohesion and inclusive design [Proposed Scheme residents, visitors and workers and existing local communities]	Provision of PBSA
	Crime reduction and community safety [Proposed Scheme residents, visitors and workers and existing local communities]	
	Access to healthy food [Residents of the Proposed Scheme]	
	Access to active and sustainable travel options [Proposed Scheme residents, visitors and workers and existing local communities]	
	Access to open space and sports and recreation facilities [Proposed Scheme residents]	
	Access to training opportunities [Labour force]	
	Employment generated during the operational stage [Labour force]	
Air Quality	Nuisance and disturbance as a result of dust from demolition and construction activities and Non-Road Mobile Machinery emissions [High and Medium sensitivity receptors within 250m of the EIA Boundary]	Changes to pollutant concentrations resulting from traffic generated by the Proposed Scheme (construction and operation)

Technical Topic Area	Effects which are Not Significant	Likely Significant Environmental Effects
	Health effects from building emissions during operation [Locations with relevant public exposure]	
	Exposure of residents or users of the Proposed Scheme to poor ambient air quality and local area's emissions [Locations with relevant public exposure]	
Noise and Vibration	Disturbance from existing vibration sources [future users of the Proposed Scheme]	Noise and vibration disturbance from demolition and construction activities Noise disturbance from increased road traffic Noise disturbance from proposed servicing areas and building services plant Noise disturbance from other uses proposed (e.g. retail; NHS unit; community uses; sports provision; amenity space) Disturbance from existing environmental noise

Appendix 2.1: Preliminary Environmental Management Plan

Project specific measures to avoid and/or prevent significant adverse environmental effects (i.e. mitigation measures) have been considered through the EIA Scoping process, when appraising likely environmental effects.

At this stage, this has focussed on 'primary mitigation' (i.e. inherent mitigation, comprising fundamental aspects of the project design) and 'tertiary mitigation' (i.e. standard environmental commitments/practices).

In order to support MCC and other stakeholders, the mitigation measures that have been identified at this stage have been collated into a single preliminary Environmental Management Plan, set out below. This will be developed further as part of the ES.

It is envisaged that mitigation will be secured through suitably worded planning conditions or other mechanism, where appropriate, and the Environmental Management Plan will be utilised by the Applicant and appointed contractor(s) to control mitigation commitments and assurance over their implementation.

Preliminary Environmental Management Plan

Mitigation Measure	Description / Details of Measure
Primary Mitigation	
Façade design	The Proposed Scheme will not contain large areas of glass, with the façade being broken into small, recessed glass elements.
Health provision	The Proposed Scheme will deliver primary mitigation in the form of an NHS healthcare facility that will be accommodated on-Site once operational.
Public realm / landscape strategy	Landscaping / open space will be provided on the ground floor through the provision of three distinct courtyards. Open space will also be provided on the sixth floor with areas of biodiverse planting, allotments and a greenhouse. The Proposed Scheme will include sport provision and student amenity on the rooftops. The Proposed Scheme includes for planting of trees, green infrastructure and landscaping which will enhance the biodiversity of the EIA Boundary, mitigating the anticipated impacts of climate change in accordance with the England Biodiversity Strategy¹⁴¹ and Natural England Climate Change Adaptation Manual¹⁴².
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 Manual where practical. Specifically, the following measures are proposed: • Implementation of sustainable drainage features such as raingardens, blue/ green roofs, tree pits etc; • Ensuring adequate elevation of critical infrastructure on or below ground floor level;

¹⁴¹ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69446/pb13583-biodiversity-strategy-2020-111111.pdf

¹⁴² <http://publications.naturalengland.org.uk/publication/5679197848862720>

Mitigation Measure	Description / Details of Measure
	• Ensure proposed external falls don't fall towards the building entrances/ exits; • Drainage strategy will account for climate change impacts (30-45% rainfall intensity increase depending on storm event); and • Provision of surface water storage to meet local authority requirements, which will be agreed with Lead Local Flood Authority at detailed design.
Lighting strategy	Obtrusive light can be avoided through appropriate lighting design in line with best practice, guidance and standards, including but not limited to: ILP's PLG04 ¹⁴³ ; ILP Guidance Note GN01 ¹⁴⁴ ; British Standard 5489-1:2020 ¹⁴⁵ ; BS EN 13201-2 – Road lighting ¹⁴⁶ , and BS EN 12464-2 – Lighting of Work Places ¹⁴⁷ . 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).
Waste strategy	The Proposed Scheme will be 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. It is assumed that all waste storage/handling facilities will be designed in accordance with British Standard (BS) 5906:2005 Waste Management in Building – Code of Practice. The Application will include a Waste Management Strategy which will set out the principles, strategy and targets for the management and storage of waste and maximise recycling, in accordance with MCC established policy.
Energy strategy	The energy strategy for the Proposed Scheme will follow a fabric-first approach for improving energy performance, using the London Energy Transformation Initiative (LETI) guidance as baseline to optimise performance for the building and site.

¹⁴³ Institute of Lighting Professionals (ILP) PLG04 Guidance on Undertaking Environmental Lighting Impact Assessment (2013)

¹⁴⁴ ILP Guidance Note 01/21 The Reduction of Obtrusive Light (2021)

¹⁴⁵ British Standard (2020). 5489-1:2020 Design of road lighting. Lighting of roads and public amenity areas. Code of practice.

¹⁴⁶ BS EN 13201-2:2015 Road Lighting Performance Requirements (2016)

¹⁴⁷ BS EN 12464-2:2014 Light and Lighting – lighting of work places. Outdoor work Places (2014)

Mitigation Measure	Description / Details of Measure
	The energy strategy of the Proposed Scheme will include the use of Air Source Heat Pumps and photovoltaic panels for renewable energy generation.
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 Safety, 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.
Potable water strategy	The operational development will include water saving measures built into the design of the Proposed Scheme, 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).
Flood risk and 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

Mitigation Measure	Description / Details of Measure
	incorporated into the surface water drainage network, in accordance with CIRIA 753 – The SuDS Manual where practical. Specifically, the following measures are proposed: • Implementation of sustainable drainage features such as raingardens, blue/ green 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; • Drainage strategy will account for climate change impacts (30-45% rainfall intensity increase depending on storm event); and • Provision of surface water storage to meet local authority requirements, which will be agreed with Lead Local Flood Authority at detailed design.
Overheating Assessment	As part of the detailed design, a sample of units in buildings will undergo overheating assessment in line with the requirements of Part O of the Buildings Regulations¹⁴⁸ in order to assess and reduce the risk of summer overheating by taking into account future 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.
Tertiary Mitigation	

¹⁴⁸ <https://www.gov.uk/government/publications/overheating-approved-document-o>

Mitigation Measure	Description / Details of Measure
Construction Environmental Management Plan (CEMP)	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 upon 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 legislation¹⁴⁹; • 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 2015¹⁵⁰ and appropriate levels of security (personnel / CCTV) will be provided; • Temporary fencing / hoarding will be erected around the perimeter of the EIA Boundary at the outset of construction; • All construction activities will be in accordance with the Considerate Constructors Scheme; • 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 hours¹⁵¹ (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>Traffic 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;

¹⁴⁹ This includes the Health and Safety at Work etc. Act 1974; the Control of Pollution Act 1974; and Construction (Design and Management) Regulations 2015.

¹⁵⁰ Secretary of State (2015). Construction (Design and Management) Regulations 2015.

¹⁵¹ 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].

Mitigation Measure	Description / Details of Measure
	• A Construction Traffic Management plan will be delivered as part of the CEMP 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; and • Provision for suitable signage (where appropriate) for pedestrian and cyclists, to minimise disruption. <u>Air Quality</u> • The CEMP will be informed by the Institute of Air Quality Management (IAQM) guidance 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. <u>Biodiversity</u> • 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 129¹⁵² and BS EN 12464-2:2014¹⁵³;

¹⁵² CIE - Technical Report Document 129 (1998) Guide for Lighting Exterior Work Areas.

¹⁵³ British Standards (2014) BS EN 12464-2 – Lighting of Work Places – Part 2: Outdoor Work Places.

Mitigation Measure	Description / Details of Measure
	- 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 GN01¹⁵⁴; - Illuminance levels arising from temporary lighting to be designed in accordance with BS EN 12464-2: 2014 and CIE 129; - 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 GN01, 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).

Waste

¹⁵⁴ Institute of Lighting Professionals (ILP) (2021) Guidance Notes for the Reduction of Obtrusive Light (GN01).

Mitigation Measure	Description / Details of Measure
	- The remedial solution during demolition works will include the removal of hazardous substances¹⁵⁵ (including asbestos¹⁵⁶, 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 2005; - The CEMP will be informed by the waste provisions of the Environmental Protection Act 1990¹⁵⁷ and the Environmental Protection (Duty of Care) Regulations 1991¹⁵⁸ 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

¹⁵⁵ The Hazardous Waste (England and Wales) Regulations 2005, No. 894.

¹⁵⁶ The Control of Asbestos Regulations 2012, No. 632.

¹⁵⁷ Environmental Protection Act 1990 No. 43 Available at: <https://www.legislation.gov.uk/ukpga/1990/43/contents> [Accessed: 18/01/2023].

¹⁵⁸ 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].

Mitigation Measure	Description / Details of Measure
	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) and are typically mitigated by applying good working practices set out in a Code of Construction Practice (CoCP)/Construction Environmental Management Plan (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 construction, in line with relevant standards and building regulations including CIRIA Report C572: Treated ground engineering properties and performance; British Research Establishment document FB75: Building on Fill – Geotechnical Aspects¹⁵⁹ and British Standard 6031:2009: Code of Practice for Earthworks¹⁶⁰. <u>Flood Risk and Drainage</u> • 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.
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. If contaminated, the made ground may pose a short-term risk to human health for the construction workforce via potential exposure pathways including dermal contact, dust/fibre inhalation and ingestion pathways outdoors, and inhalation of gases. Risks to human health during construction are required to be managed under the Health and Safety at Work Act (1974) and are typically mitigated by applying good working practices set out in a Code of Construction Practice (CoCP)/Construction Environmental Management Plan (CEMP) and Health and Safety Plan.

¹⁵⁹ British Research Establishment (2015). FB75: Building on Fill - Geotechnical Aspects. 3rd Edition.

¹⁶⁰ British Standard (2009). 6031:2009: Code of Practice for Earthworks.

Mitigation Measure	Description / Details of Measure
	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.
Foundation design	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.
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).
Unexploded Ordnance Strategy	In the event that a risk assessment by 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.

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