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Environmental Statement: Volume 1

All Saints Library – Manchester Metropolitan University

December 2025

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1. Introduction

1.1. This Environmental Statement ('ES') has been prepared in respect of an application for full Planning Permission for the development of a library building at Manchester Metropolitan University's All Saints Campus in Manchester City Centre (the 'Site').

1.2. The Applicant is Manchester Metropolitan University (the 'Applicant').

1.3. The full planning application submitted to Manchester City Council ('MCC'), and which forms the 'Proposed Development' has the following formal description of development:

"Pursuant to application ref. 143943/FO/2025, Full Planning Permission for the development of a library building (Use Class F1) of varied height (part 7 storeys and part 9 storeys to accommodate an additional 2 storeys of enclosed plant), public realm, access and servicing arrangements and other associated works."

1.4. The Proposed Development represents the latest phase of the University's estate transformation, delivering a key educational facility for students, staff, and the wider community.

1.5. Manchester Metropolitan University's proposals to redevelop the Site have been subject to a previous planning application, submitted in October 2023 (application ref. 138424/FO/2023). This application sought consent for the refurbishment of the existing library building, and the demolition of the adjacent building to make way for a new 12 storey development fronting Oxford Road.

1.6. Building upon the foundations of the 2023 scheme, the Applicant is now advancing a refreshed approach to shape the future vision for the library and cultural services at the heart of the All Saints Campus.

1.7. The Proposed Development is nine storeys, inclusive of two storeys of rooftop plant.

1.8. The Site is already subject to a planning application (ref. 143943/FO/2025, submitted August 2025) for the partial demolition of the existing All Saints Library building. This application is also subject to an Environmental Impact Assessment (EIA) and is currently being determined.

1.9. This Statement assesses the Proposed Development works, as outlined in line 1.3. For robustness, due to the overlapping timescales of the planning applications, we have appended the demolition application Environmental Statement to this Statement (Appendix 1.1 – 1.3), to ensure the environmental impacts of the development as a whole (demolition, construction and operation), are considered holistically. A scoping exercise has been undertaken and agreed with Manchester City Council (MCC) as Local Planning Authority (LPA) to agree this approach, and further discussed and agreed with MCC via email on 29 September 2025.

1.10. On this basis, the Statement considers the following technical disciplines on the following basis:

- Air Quality – demolition only;
- Noise and Vibration – demolition only;
- Townscape Visual Impact Assessment – construction and operation;
- Wind Microclimate – construction and operation; and
- Climate Change – construction and operation.

The Site

1.11. Figure 1.1 shows the location of the Site in its local context as well as the application boundary edged in red.

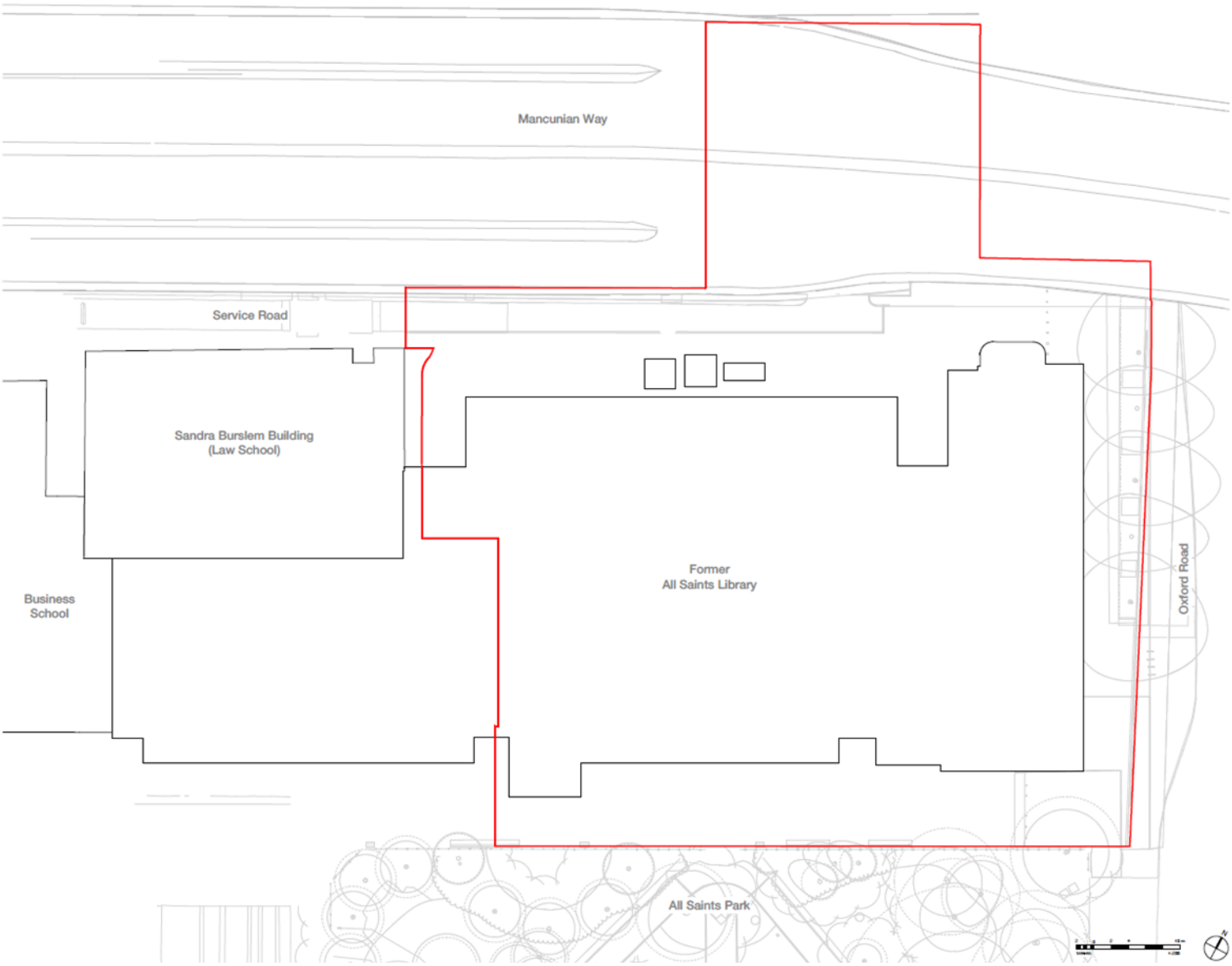
1.12. The Site currently comprises the vacant All Saints Library building, a seven storey brick building. The building on site is considered no longer fit for purpose and has been vacant since summer 2024.

1.13. The Site is bound by Oxford Road to the east, by the Mancunian Way to the north, Manchester Metropolitan University's Faculty of Business and Law and the retained element of the extant library building to the west, and All Saints Park to the south. (the 'Site'). It extends to c. 0.6 ha and is a prominent site located within Manchester's Oxford Road Corridor, which is a major focus of higher education and the City's knowledge economy more generally.

1.14. Please refer to Chapter 4 of this ES for further details on the Site Context.

1.15. This ES sets out the findings of an EIA carried out in respect of the Proposed Development.

Figure 1.1: Site Plan (Hawkins Brown, November 2025)



Requirements for EIA

1.16. The EIA process is the mechanism by which development proposals are appraised in terms of their likely environmental effects, in addition to engineering and technical considerations.

1.17. The purpose of the EIA is to establish the nature of the Proposed Development and the environment in which it is likely to take place, during the development's construction and operational phase, as to identify the likely significant effects on the environment. The assessment compares the existing situation at the start of the work (baseline) with the situation during operation.

1.18. The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (the 'EIA Regulations') require that any Proposed Development falling within the description of a 'Schedule 2 development' (as defined within the meaning of the EIA Regulations), will be subject to an EIA where such development is likely to have 'significant' effects on the environment by virtue of such factors as its characteristics, location, types and characteristics of its potential impact (Regulations 5(4)).

1.19. The Proposed Development is assessed for its likely significant effects on the environment based on Schedule 2 criteria. Considering that the Site covers an area of approximately 0.6 ha and has the potential to cause significant effects related to wind, climate change, air quality, noise and vibration, and town and visual impact, it has therefore been determined, following consultation with the Local Planning Authority, that an Environmental Impact Assessment (EIA) is appropriate to thoroughly evaluate these likely significant effects.

1.20. A formal EIA scoping request was submitted to MCC on 12 September 2025 requesting formal confirmation of the proposed scope of the Environmental Impact Assessment required in respect of the Proposed Development. A formal scoping opinion was received on 13 October 2025. The technical Chapters are based on a scope of assessment that has been agreed with the relevant statutory consultees through the scoping exercise. A copy of the EIA Screening and Scoping Report and the Scoping Opinion is included in Appendix 2.1 and 2.2 of this ES.

1.21. In accordance with Schedule 4 of the EIA Regulations, this ES sets out the following information:

- A description of the Proposed Development comprising information on the Site, design, size and other relevant features of the development.
- A description of the likely significant effects of the Proposed Development on the environment.
- A description of any features of the Proposed Development or measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment.
- A description of the reasonable alternatives studied by the developer, which are relevant to the Proposed Development and its specific characteristics, and an indication of the main reasons for the option chosen, considering the effects of the development on the environment.
- A non-technical summary of the information, of the information specified above.
- Any additional information specified in Schedule 4 relevant to the specific characteristics of the development or type of development and to the environmental features likely to be significantly affected.

Project Team

1.22. Deloitte has significant experience and expertise in managing the EIA process and hold the Institute of Sustainability and Environmental Professionals (formerly IEMA) EIA Quality Mark. Details of the Project Team, EIA Technical Team and qualifications are set out in Table 1.1 and Table 1.2 below.

Table 1.1: Project Team and Technical Discipline

Consultant	Technical Disciplines
Deloitte	Planning and EIA Co-ordinator
Hawkins Brown	Architecture and Design
Buro Happold	Air Quality
Buro Happold	Noise
Tyler Grange	Ecology
Planit	Landscaping Design
Turner and Townsend	Construction
Buro Happold	Ground Conditions and UXO
Amenity Tree	Arboriculture
Deloitte	Heritage
GMAAS	Archaeology
Buro Happold	Traffic and Transport
G-Tech	Broadband Connectivity and TV Reception
Virtual Planit	Townscape and Visual Imapct
Buro Happold	Daylight, Sunlight, Overshadowing
Buro Happold	Climate Change
Buro Happold	Wind Microclimate

Table 1.2: EIA Technical Team

Topic	EIA Consultant	Qualifications
EIA Coordinator	Deloitte	MRTPI, MSc, MA (Hons) IEMA Quality Mark Registered
Construction and Demolition	Turner and Towsend	N/A
Air Quality	Buro Happold	BSc, MIAQM
Noise and Vibration	Buro Happold	BSc (Hons), Dip. IoA, MIOA, IEng
Townscape and Visual Impact	Planit-IE	BA (Hons), Dip LA, CMLI
Wind Microclimate	Buro Happold	MRes Fluid Dynamics (Environmental & Applied Fluid Dynamics); MSc Building Technology; BSc Civil Engineering
Climate Change	Buro Happold	BSc, MSC, IMEA Member

Organisation of the Environmental Statement

1.23. This ES comprises 10 Chapters and is supported by figures (located at the back of each Chapter within Volume 1) and technical appendices (within a separate Volume 2). A non-technical summary (NTS) of the full ES is provided as a separate standalone document (Volume 3).

1.24. Figures have been referenced using the Chapter number as a prefix followed by the number of the figure within a given Chapter. Appendices have been referenced in the same way but due to their size they are contained separately in Volume 2. Table 1.3 sets out the structure of the ES.

Table 1.3: Structure of this Environmental Statement

Chapter No.	Chapter Title	Description
VOLUME 1		
1.	Introduction	Introduction to the ES, EIA requirements, details of the project team, ES organisation and availability.
2.	EIA Methodology	Methods used to prepare each Chapter, description of ES structure and content, generic significance criteria, scoping and consultation.
3.	Alternatives and Design Evolution	Outline of the main alternatives considered by the Applicants.
4.	Description of the Site and its Surroundings	Information about the site and its surroundings relevant to the assessment of the Proposals.
5.	Construction Management – Programme and Methodology	To assess the construction impacts associated with the Proposed Development.
6.	TVIA	To assess the effects of the Proposed Development in relation to townscape and visual impact.
7.	Wind Microclimate	To assess the effects of the Proposed Development in relation to wind.
8.	Climate Change	To assess the effects of the Proposed Development in relation to climate change.
9.	Summary of Residual Effects	Summary of residual effects of the Proposed Development (including cumulative impacts alongside other committed developments).
10.	Type 1 Cumulative Effects	An assessment of the combined effects arising from the Proposed Development and demolition proposals upon a set of defined sensitive receptors.
VOLUME 2		

Chapter No.	Chapter Title	Description
Appendix 1.1 – 1.3	Air Quality Chapter (provided within demolition application Environmental Statement: Volumes 1-3)	To assess the effects of the Proposed Development in relation to Air Quality.
Appendix 1.1 – 1.3	Noise and Vibration Chapter (provided within demolition application Environmental Statement: Volumes 1-3)	To assess the effects of the Proposed Development in relation to Noise and Vibration.
VOLUME 3		
Non-Technical Summary		A short concise document written in a non-technical language, necessary to meet the requirements of the EIA Regulations, to make the ES accessible to a non-technical audience.

Other Documents

1.25. Together with this ES and its appendices, the following documents will be submitted to MCC in support of the planning application:

Table 1.4: Planning Application Supporting Documents

Document	Consultant
Application Forms and Notices	Deloitte
Covering Letter	Deloitte
Planning Statement including the Green and Blue Infrastructure Statement	Deloitte
Architectural Plans and Drawings	Hawkins Brown
Design and Access Statement	Hawkins Brown
Landscaping Strategy	Planit
Landscaping Plans and Drawings	Planit
Statement of Community Involvement	Deloitte
Heritage Statement	Deloitte
Archaeological - Letter of Confirmation	GMAAS via Deloitte
Arboricultural Assessment	Amenity Tree via Planit
Ecological Appraisal and Biodiversity Net Gain Assessment	Tyler Grange via Planit
Crime Impact Statement	Greater Manchester Police

Document	Consultant
Daylight, Sunlight, Overshadowing Assessment	Buro Happold
Lighting Assessment	Buro Happold
Local Labour Agreement	Manchester Metropolitan University
Ventilation Strategy	Buro Happold
Verified Views	Virtual Planit
Outline Construction Management Plan and Waste	Turner and Townsend
Energy and Carbon Statement	Buro Happold and Hawkins Brown
Environmental Standards Statement	Buro Happold
Air Quality Assessment and Dust	Buro Happold
Flood Risk Assessment	Buro Happold
Drainage Strategy	Buro Happold
Ground Conditions and UXO	Buro Happold
Noise Assessment	Buro Happold
Travel Plan	Manchester Metropolitan University
Transport Statement	Buro Happold
Waste and Management Strategy	Manchester Metropolitan University
TV and Radio Reception Survey	G-Tech
Dilapidation Survey	Connell Brothers
Utility Statement, including GPR Survey results	Buro Happold
Environmental Statement	
Volume 1: Main Chapters	
Introductory Chapters	Deloitte
Construction Management	Turner and Townsend
Townscape and Visual Impact	Virtual Planit
Wind Microclimate	Buro Happold

Document	Consultant
Climate Change	Buro Happold
Volume 2: Technical Appendices	
Air Quality Chapter (provided within demolition application Environmental Statement: Volumes 1-3)	Buro Happold
Noise and Vibration Chapter (provided within demolition application Environmental Statement: Volumes 1-3)	Buro Happold
Remaining Technical Appendices	EIA Team
Volume 3: Non-Technical Summary	
Non-Technical Summary	Deloitte

1.26. The ES is available for public viewing on MCC's Public Access website at the following address: http://pa.manchester.gov.uk/online-applications/ once the application has been submitted and validated.

1.27. The ES may be purchased in volumes, the costs for which are set out below:

- Volume 1: ES Main Text and Figures - £150;
- Volume 2: ES Appendices - £150;
- Volume 3: Non-Technical Summary (NTS) - £15;
- Full Copy (Volumes 1 and 2, and NTS) of the ES on CD - £15.

1.28. For copies of any the above, please contact the Manchester Planning Team at Deloitte:

All Saints, MMU – Planning and EIA Team
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2. EIA Methodology

Introduction

2.1. This Chapter sets out the methodology used to prepare each Chapter of the ES and describes its structure and content. In particular, it sets out the process of identifying and assessing the likely significant effects of the Proposed Development on the environment as defined in Chapter 1 and described in detail in Chapter 5.

Legislation and Guidance

2.2. The ES has been prepared to comply with EIA Regulations, which implement European Council Directive No. 85/337/EEC as amended by Directive 2014/52/EU and entered into force on 17 May 2017. The EU legislation as it applied to the UK on 31 December 2020 is now a part of UK domestic legislation, under the control of the UK's Parliaments and Assemblies. The European Union (Withdrawal) Act 2018 introduced "retained EU law" which provides that EU-derived domestic legislation continues to have effect.

2.3. Reference has also been made to currently available good practice guidance in EIA including:

- Circular 02/99: Environmental Impact Assessment
- The European Commission's numerous EIA guidance documents available here: http://ec.europa.eu/environment/eia/eia-support.html
- Guidance on EIA Scoping, European Commission, June 2001
- Guidance on Transport Assessment, DCLG and DfT, March 2007
- National Planning Practice Guidance – Department for Communities and Local Government (March 2014 and continuously updated as a 'live' resource)
- Reference has been made to the Institute of Environmental Management and Assessment (IEMA) publications, including:
- IEMA ES Review Criteria
- IEMA Guidelines for Environmental Impact Assessment (2004)
- IEMA Special Report into the State of Environmental Impact Assessment Practice in the UK (2011)
- IEMA Shaping Quality Development (2015)
- IEMA Delivering Quality Development (2016)
- IEMA Delivering a Proportionate EIA (2017)

2.4. The ES has also had regard to the National Planning Policy Framework 2024 (NPPF). The NPPF sets out the Government's economic, environmental and social planning policies for England, articulating the Government's aspiration for sustainable development. The NPPF has been considered where it is relevant to EIA.

2.5. As relevant to the ES technical chapter's scope, methodology and assessment of effects, key local planning policy documents have been considered. These include:

- Places for Everyone (PfE) (2024)
- Manchester City Council Core Strategy (2012)
- Saved Unitary Development Plan Policies (1995)

2.6. Any additional planning policy or guidance documents considered relevant have been identified within the relevant technical chapters.

Screening and Scoping

2.1. This Statement assesses the Proposed Development works, as outlined in line 2.2. For robustness, due to the overlapping timescales of the planning applications, we have appended the demolition application Environmental Statement to this Statement (Appendix 1.1 – 1.3), to ensure the environmental impact of the development as a whole (demolition, construction and operation), are considered holistically.

2.2. A formal EIA scoping request was submitted to MCC on 12 September 2025 requesting formal confirmation of the proposed scope of the Environmental Impact Assessment required in respect of the Proposed Development. A formal scoping opinion was received on 13 October 2025 and included in Appendix 2.1 and 2.2 of this ES.

2.3. MCC was previously contacted via email on 17 June 2025 requesting their opinion on the proposed scope of the EIA required in respect of the Demolition application. The LPA confirmed via email on 18 June 2025 that the ES for this application could be scoped to include only Air Quality and Noise & Vibration. A copy of the EIA scoping email, and opinion received in response is included in Volume 2 of the ES (Appendix 1.2).

2.4. Further to these Scoping exercises, as noted in Chapter 1, the following Chapters have been scoped into the EIA:

- Air Quality – demolition only
- Noise and Vibration – demolition only
- Wind – construction and operation
- Townscape and Visual Impact – construction and operation
- Climate Change – construction and operation

EIA Scenarios

EIA Scope and Scenarios

2.1. The scenarios to be tested within the holistic EIA take into the account the project specifics and are proportionate to the scale of development proposed, and agreed via the scoping exercise with MCC.

2.2. The scenarios are as follows:

Table 2.1: Scenarios

Scenario 1	Existing Baseline Conditions (existing Site as of November 2025, including developments defined within the Baseline section of the committed development schedule in Appendix 2.2)
Scenario 2	Existing Baseline + Demolition (considered within the Air Quality and Noise Chapters within the appended demolition application ES – Appendix 1.1-1.3)
Scenario 3	Existing Baseline + Proposed Development
Scenario 4	Existing Baseline + Proposed Development + Cumulative
Scenario 5	Future Baseline (as per application ref. 143943/FO/2025) + Proposed Development

2.3. The scenarios to be tested within the EIA take into account the range of committed or reasonably foreseeable developments anticipated to come forward within the study area.

2.4. The selection of baseline was agreed via the scoping exercises with MCC, with consideration for the 'worst case scenario'. On this basis Table 2.2 sets out the scenarios assessed, with some additional explanatory text from relevant disciplines where necessary.

Table 2.2: EIA Scenarios to be assessed

Topic	Scenarios Assessed	Rationale
Air Quality	1,2	Scoped for demolition phase of development only (as the worst case scenario) (see Appendix 1.1)
Noise and Vibration	1,2	Scoped for demolition phase of development only (as the worst case scenario) (see Appendix 1.1)
Wind	1,3, 4	Scoped for construction and operation phases of development only (as the worst case scenario) (see Chapter 7 below) Scenario 5 has not been assessed as either the Existing Baseline or Future Baseline could be considered the 'worst case scenario' and for the purposes of a robust assessment the current baseline at the time of submission has been selected.
Townscape and Visual Impact	1,3, 4	Scoped for construction and operation phases of development only (as the worst case scenario) (see Chapter 7 below) Scenario 5 has not been assessed as either the Existing Baseline or Future Baseline could be considered the 'worst case scenario' and for the purposes of a robust assessment the current baseline at the time of submission has been selected.
Climate Change	1,3	Scoped for construction and operation phases of development only (as the worst case scenario) (see Chapter 7 below) Scenario 4 scoped out as the contextualisation of GHG emissions should incorporate by its nature the cumulative contributions of other GHG sources which make up that context. As part of this assessment, an inter-development cumulative effects assessment will not be undertaken on a specific cumulative scheme basis; however, the Proposed Development's GHG emissions will be considered in the context of both the UK national carbon budgets, the Tyndall Centre recommended energy only carbon budgets and Logika carbon budgets for Manchester City. As such, the cumulative contributions of other GHG sources that make up the national and local contexts will be considered within the assessment. Scenario 5 has not been assessed as this is not the 'worst case scenario' baseline.

Consultation

2.5. The Proposed Development has been prepared in consultation with MCC and a range of technical statutory stakeholders (refer to Table 2.3), which were also consulted upon as part of the formal EIA Scoping exercise.

Table 2.3: Scope of Stakeholder Consultation

Planning Application Stakeholder Consultation
MCC Planning Authority
MCC Highways
Cadent Gas
MCC Environmental Health Officers (EHO)
MCC Flood Risk Management
MCC Arboricultural Team
Environment Agency
Greater Manchester Police
Greater Manchester Archaeological Advisory Service (GMAAS)
Greater Manchester Ecology Unit (GMEU)
National Highways
Natural England
Transport for Greater Manchester
United Utilities
Aerodrome Safeguarding

2.6. In addition to the stakeholder consultation noted above, the Proposed Development has benefited from public consultation. Further details are provided in the Statement of Consultation that accompanies the application. Considerations of any legitimate alternative proposals are set out in Chapter 4 of this ES.

Non-Significant Effects

2.7. It has been confirmed via MCC's formal Scoping Opinion (received via email on 13th October 2025) that the following disciplines will not give rise to likely significant effects on the environment and therefore do not require inclusion in the Environmental Statement.

2.8. An explanation for scoping out each discipline set out below is provided in the EIA Scoping Opinion, within Appendix 2.1:

- Archaeology.
- Ecology and biodiversity.
- Built Heritage.

- Flood risk and drainage.
- Ground Conditions and Contamination.
- Transport and Accessibility.
- Socio-Economic.

Approach to Technical Studies

2.9. Various technical studies were commenced at an early stage in the process. The findings of the baseline environmental studies played an important role in the design of the Proposed Development by defining the environmental sensitivities, constraints and opportunities associated with the Site.

2.10. Project team reviews, attended by members of the project team, were held throughout the pre-application process. These reviews provided a valuable forum for the exchange of information and sought to ensure that the project team was fully aware of the environmental constraints and opportunities and of the interactions between disciplines. Pre-application engagement was also undertaken with MCC as the Local Planning and Highway Authority.

2.11. The technical studies have been undertaken in accordance with current best practice. Specific guidance used is referenced within each of the respective assessment Chapters.

2.12. The majority of assessments involved desk-based research, site inspections and surveys, impact prediction and mitigation.

2.13. The assessment and conclusions of the ES are based on the description of the Proposed Development provided in Chapter 1.

Structure of Technical Chapters

2.14. Each technical Chapter of the ES has been set out broadly in line with Table 2.4.

Table 2.4: Structure of the ES Technical Chapters

Technical Chapter Subheading	Summary of information
Introduction	Each of the technical Chapters begins with an introduction providing context to the EIA completed.
Policy Context	This section includes a summary of legislation and of national and local policies relevant to the environmental discipline and explains its purpose in the context of the Proposed Development and the ES.
Assessment Methodology and Significance Criteria	This section describes the method or approach employed in the assessment of impacts, the criteria against which the significance of effects has been evaluated, the sources of information used and any technical difficulties encountered. Relevant legislation is also identified.
Baseline Conditions	This section describes and evaluates the baseline environmental conditions i.e. the current situation and anticipated changes over time assuming the Site remains unchanged. This is a critical part of the EIA process as it provides a measure against which potential environmental effects can be assessed.

Technical Chapter Subheading	Summary of information
Identification and Evaluation of Key Impacts	This section identifies the likely significant effects on the environment resulting from the Proposed Development. A description of the likely effects of the Proposed Development and an assessment of their predicted significance is provided. The assessment of effect significance has been undertaken using appropriate national and international quality standards. Where no such standards exist, the judgments that underpin the attribution of significance are described. The guidelines, methods and techniques used in the process of determining significance of effects are contained within each of the technical Chapters presented.
Mitigation Measures	One of the main aims of the EIA process is to develop suitable mitigation measures to avoid, reduce or compensate for any significant adverse effects of a project. This section of each technical Chapter describes the measures which would be implemented to mitigate potential adverse effects. Where possible, enhancement measures have also been proposed.
Residual Effects	The residual effects, i.e. the remaining effects of the Proposed Development assuming implementation of the proposed mitigation measures, have been estimated and presented. The methods used to make these estimates are described and proposed methods of treatment for any residual effects have been identified and quantified where possible.
Summary	Each technical Chapter concludes with a brief summary outlining the potential residual effects of the Proposed Development.

2.15. Chapter 5 provides information to allow the construction phase of the Proposed Development to be assessed by the disciplines set out in Chapter 1.

Magnitude

2.16. The methodology for determining the scale, or magnitude, of effect is set out in Table 2.5.

Table 2.5 Methodology for Assessing Magnitude

Magnitude of Impact	Criteria for Assessing Effect
Major	Total loss or major/substantial alteration to key elements/features of the baseline conditions such that the post development character/composition/attributes will be fundamentally changed.
Moderate	Loss or alteration to one or more key elements/features of the baseline conditions such that post development character/composition/attributes of the baseline will be materially changed.
Minor	A minor shift away from baseline conditions. Change arising from the loss/alteration will be discernible/detectable but not material. The underlying character / composition / attributes of the baseline condition will be similar to the pre-development circumstances/situation.

Magnitude of Impact	Criteria for Assessing Effect
Negligible	Very little change from baseline conditions. Change barely distinguishable, approximating to a 'no change' situation.

Sensitivity

2.17. The sensitivity of a receptor is based upon the relative importance of the receptor using the scale in Table 2.6.

Table 2.6: Methodology for Assessing Sensitivity

Sensitivity	Examples of Receptor
High	The receptor/resource has little ability to absorb change without fundamentally altering its present character, or is of international or national importance.
Medium	The receptor/resource has moderate capacity to absorb change without significantly altering its present character, or is of high importance.
Low	The receptor/resource is tolerant of change without detriment to its character, is of low or local importance.

Significance

2.18. The significance of an environmental effect is determined by the interaction of magnitude and sensitivity, whereby the impacts can be positive or negative. Table 2.7 below shows how magnitude and sensitivity interact to derive effect significance.

Table 2.7: Methodology for Assessing Significance

Magnitude	Sensitivity		
	High	Medium	Low
Major	Major Adverse/Beneficial	Major - Moderate Adverse/Beneficial	Moderate or Minor Adverse/Beneficial
Moderate	Major - Moderate Adverse/Beneficial	Moderate Adverse/Beneficial	Minor Adverse/Beneficial
Minor	Moderate or Minor Adverse/Beneficial	Minor Adverse/Beneficial	Minor Adverse/Beneficial - Negligible
Negligible	Negligible	Negligible	Negligible

2.19. The above magnitude and significance criteria have been provided as a guide for technical specialists to assess impact significance. Where discipline specific methodology has been applied that differs from the generic criteria above, this has been clearly explained within the given Chapter under the heading of 'Assessment Methodology and Significance Criteria'.

2.20. For the purposes of this Environmental Statement, an effect will be potentially 'significant' if it is classed as either 'moderate' or 'major' (bold text in Table 2.6).

Baseline Conditions

2.21. Each technical Chapter includes a section which describes and evaluates the baseline environmental conditions (i.e. the current situation and anticipated changes over time assuming the Site remains unchanged). Baseline data has been obtained from a variety of sources, including published documents, maps, historical information and site survey data. Given the complex nature of the Site and surroundings, each technical Chapter (Chapters 6 to 8) includes a clear description of what is assumed as the baseline against which the assessment is being made.

2.22. The method used to obtain baseline information, where relevant and possible, has been clearly identified within each technical Chapter and agreed in advance with statutory consultees.

Mitigation

2.23. Any adverse environmental effects have been considered for mitigation from the outset and, where practicable, specific measures have been put forward. Measures have been considered based on the following hierarchy of mitigation:

- Avoidance;
- Reduction;
- Compensation;
- Remediation; and
- Enhancement.

2.24. Where the effectiveness of the mitigation proposed has been considered uncertain, or where it depends upon assumptions of operating procedures, data and/or professional judgement has been introduced to support these assumptions.

2.25. Mitigation recommended during the construction phase would be set out in the Construction Management Plan (CMP) to be agreed with MCC prior to the commencement of work and implemented throughout the duration of the works. Outline mitigation measures to be included in a future CMP are set out in Chapter 5: Construction Methodology and Programme and are cross referred to in the relevant chapters.

Residual Effects

2.26. The likely significant effects on the environment, assuming the successful implementation of mitigation measures proposed, have been estimated within each Chapter. These are termed ‘residual effects’ and are considered in Chapter 9 of this Statement.

Cumulative Effects

2.27. A search of MCC’s planning applications database and knowledge of the area has identified schemes for which cumulative effects are considered more likely, this includes other reasonably foreseeable schemes, i.e. those contained within the Development Plan or other material considerations. A full list, as of November 2025 is contained at Appendix 2.3, to which agreement has been provided from the LPA as part of the Scoping Opinion process.

2.28. As part of the Scoping process the technical consultants reviewed the Committed Developments and advised that these are of relevance to the Proposed Development and have therefore been scoped into the assessments.

2.29. Chapter 10 assesses the Type 1 Cumulative effects. Type 1 cumulative effects are also known as ‘inter-project’ effects, which are the combined effects arising from the development upon a set of defined sensitive receptors.

Assumptions and Limitations

2.30. The principal assumptions that have been made and any limitations that have been identified in preparing the ES are set out in each technical Chapter. General assumptions include the following:

- All of the principal land uses adjoining the Site remain. Where redevelopment proposals have been granted planning permission, the effect of those proposals are considered as part of the Cumulative Impacts;
- Information received from third parties is complete and up to date;
- The various stages of the Proposed Development will satisfy minimum environmental standards, consistent with contemporary legislation, practice and knowledge;
- Assessments are based upon, and conclude, the 'worst case' effects that would arise from the application as defined by the description of development set out in Chapter 4, Site Surroundings and Description of the Proposals;
- Construction methods and phasing will follow the timetable and methods set out in Chapter 5, Construction Management;
- Conditions will be attached to the planning permission that will control disturbance during the Proposed Development; and
- Necessary off-site services infrastructure for the Proposed Development will be provided by statutory undertakers.

Objectivity

2.31. The technical studies undertaken with the ES have been progressed in a transparent, impartial, and unbiased way with equal weight attached, as appropriate, to beneficial and adverse effects. Where possible, this has been based upon quantitative and accepted criteria together with the use of value judgements and expert interpretations.

2.32. The assessment has been explicit in recognising areas of limitation within the ES and any difficulties that have been encountered, including assumptions upon which the assessments are based. Where appropriate, the assessment of significance has been given confidence levels.

3. Consideration of Alternatives

Introduction

3.1. Regulation 18(3) and Schedule 4, Paragraph 2 of the EIA Regulations require an outline of considered alternatives and the rationale for the chosen option, considering environmental effects. This includes describing reasonable alternatives (design, technology, location, size, scale) and comparing their environmental impacts.

3.2. This chapter addresses this requirement by evaluating:

- The "do nothing" alternative: Not proceeding with the development.
- Alternative proposals: Other options considered for the site.
- Alternative construction technologies: Different construction methods.

3.3. The detailed Proposed Development (Chapter 4) resulted from close collaboration with MCC and stakeholders to optimise the development.

The “do nothing” Alternative

3.4. The “do nothing” scenario refers to the option of leaving the Site in its current use. The Site is brownfield land in Manchester City Centre. The Site currently contains a vacant library building, which is no longer fit for purpose and therefore has reached the end of its operational life. Additionally, if the proposals for the demolition of the library are consented under application ref. 143943/FO/2025, the Site would constitute a vacant area of developable land.

3.5. The Site and wider University Campus are located at the heart of Manchester’s Oxford Road Corridor, which is a long-established priority location for higher education and a principal driver of Manchester’s knowledge economy. As such, the area is also important as an economic driver for Manchester and the wider City Region with much of the activity that takes place in the Oxford Road Corridor also being nationally and internationally significant.

3.6. The development of a new library building will provide a dynamic and active library environment, which redefines the role of the library for modern day use, improving the experience of students and staff. The development will align with the key strategies outlined within the University’s ‘Road 2030’ strategic vision, particularly in regard to inclusivity, accessibility, innovation and sustainability, which are not met within the current library design.

3.7. In light of this, the Site forms part of an area identified as a strategic priority for regeneration and redevelopment, the “do nothing” alternative has been discounted.

Consideration of Alternative Locations

3.8. The strategic positioning of the library within the core of the University's All Saints Campus is fundamental to its function and the student experience. As a primary academic resource, a central location ensures optimal accessibility for all students and faculty. This minimises travel time, thereby encouraging greater engagement with library services and fostering a robust environment for academic inquiry and research. Such central placement also naturally facilitates interdisciplinary collaboration and provides a readily available hub for both individual and group study, directly supporting academic success across the institution.

3.9. Beyond its immediate campus context, the site's location within the prominent Oxford Road educational corridor significantly enhances its strategic value. This corridor is widely recognised as a key centre for higher

education and innovation within Manchester, hosting numerous academic institutions. Placing the library here allows it to both benefit from and contribute to this broader academic ecosystem, facilitating potential collaborations and resource sharing. This reinforces Manchester's standing as a leading educational hub, strengthening the city's overall academic infrastructure and aligning with regional educational objectives.

3.10. The Site is situated within a highly strategic location within the City Centre and is therefore well served by multiple modes of sustainable transportation methods. For instance, the Manchester Oxford Road train station and and St Peter's Square Metrolink stops are both located around a ten minute walk from the Site, providing access to a number of locations throughout Greater Manchester and beyond. The Oxford Road Corridor is thought to be one of the busiest bus routes in Europe.

3.11. Fundamentally, the proposed development will result in the enhancement of an existing brownfield site and replace the extant, vacant library, which is ideally located through its physical and functional connections with Manchester Metropolitan University's wider estate.

3.12. As a high-profile gateway site for the Campus, adjacent to an important public space (All Saints Park), the Site lends itself to a proposal of this nature. The proposals ideally located adjacent to Oxford Road which is one of Manchester's principal thoroughfares and a key public transport / active transport corridor. Therefore, this Chapter does not consider that there are any appropriate alternative sites within the context of the planning application.

Consideration of Alternative Uses

3.1. As mentioned above, the Site is strategically located at the heart of the Oxford Road Corridor, within the City Centre and close to both universities campuses, making the Site highly suitable for an educational and library use.

3.2. The proposals do not involve a change of use, relative to the existing building on the Site. The proposed use continues to be entirely appropriate within the context of Manchester Metropolitan University's estate and their ongoing estates programme. It is also consistent with Manchester City Council's regeneration strategy for the area.

3.3. There is no alternative to academic use that would be considered by the University to be appropriate for the site in this context.

Consideration of Alternative Design

3.4. Different scale and massing options have been considered for the Proposed Development, the aim of which is to maximise the suitable use of the Site to create a sustainable, viable scheme and minimise any negative impacts on adjacent land uses and the environment, whilst providing public benefits.

3.5. Hawkins Browns' scheme reflects the optimum scale and massing that sits comfortably in the city scape, stepping down in scale from the Circle Square development to the north, into the lower scale of the University campus.

3.6. The proposals reflect the massing of the existing building, within a similar footprint at ground level. The massing therefore sits well in the context, with a frontage along All Saints Park and Oxford Road, two main pedestrian thoroughfares. The scale and massing of the Proposed Development is in line with the principles of the Oxford Road Corridor.

3.7. The Design and Access Statement sets out the detailed development of the design proposals. As part of this a sequence of building forms, heights and layouts were examined and tested against the accommodation and brief requirements. Throughout this process the scale and proportion of the volumes, and also the relationship between each volume were assessed and evaluated.

Consideration of Alternative Construction and Phasing

3.1. This application represents the construction phase of the new library application only. The wider project adopts a phased approach, commencing with the partial demolition of the existing library (application ref. 143943/FO/2025), followed by the construction of the new nine-storey library (this application), and a separate refurbishment of the retained library element (to be submitted early 2026). This sequencing allows for efficient site utilisation and management of complex works, building upon previous planning applications and strategic campus changes.

3.2. Construction and demolition activities will adhere to an Outline Construction Environmental Management Plan (OCEMP). This includes specific measures such as establishing appropriate delivery routes, scheduling deliveries outside peak hours, and implementing hoarding and fencing to mitigate noise and dust impacts on the surrounding environment and adjacent university operations.

3.3. The chosen construction methodology incorporates strict site operating hours and detailed logistical planning to ensure minimal impact on the highly accessible city centre location, particularly along Oxford Road and near All Saints Park, while ensuring the safe and efficient delivery of materials and removal of waste.

Summary

3.1. As required by the EIA Regulations, the main alternatives have been considered with regard to the Proposed Development and, where appropriate, reasons have been provided within the chapter to cover the choices that have been made.

3.2. This process has been informed by the site constraints and opportunities, and the desire to support the ongoing growth and success of Manchester Metropolitan University as an academic institution.

3.3. The Proposed Development has been influenced by pre-application consultation with MCC and the general public. On this basis, Regulation 18(3) and Paragraph 2 of Schedule 4 of the EIA Regulations has been considered.

4. Description of the Site and its Surroundings

Site Location

4.1. The Site is located in Manchester City Centre. The Site is bound by a public footpath and All Saints Park to the south, the Manchester Metropolitan University Business and Law School, the elevated Mancunian Way directly to the north and Oxford Road to the east. Please refer to Figure 1.1 for the Site Location Plan.

Surrounding Land Uses

4.2. The Site is located within the Manchester Metropolitan University's All Saints Campus.

4.3. East of the Site, across Oxford Road, are low-rise buildings containing shops, commercial properties, and residential units above. To the south lies All Saints Park, bordered by various Manchester Metropolitan University buildings, St Augustine's Church, and structures of differing scale and height.

4.4. University buildings and student accommodation are located to the west. To the north, the elevated Mancunian Way runs east-west, beyond which lies the Manchester Metropolitan University John R Dalton Building and the high-density Circle Square development. Circle Square features a mix of commercial, residential (including student accommodation), and food and beverage uses.

4.5. The Site is located within the Hulme ward, and the Piccadilly Ward is located just to the north on the opposite side of Oxford Road.

Site Description

Site Area

4.6. The Site extends to circa 0.6 ha.

Existing Buildings, Structures and Spaces

4.7. The Site currently contains an operational library building, but this is no longer fit for purpose and is subject to a demolition application, as submitted in August 2025 (application ref. 143943/FO/2025).

Trees

4.8. A total of five trees are located within the Site, along the eastern border. Of these, all five trees are in A1 category, which is characterised by trees of high quality and value. For completeness, all trees are to be retained and protected during the works. The application is accompanied by a Tree Survey and Arboricultural Impact Assessment.

Access and Topography

4.9. The Site can currently be accessed via Oxford Road, a key pedestrian, cycle and vehicular route, located immediately adjacent to the east of the Site. A servicing route is located to the north of the Site, which feeds in from Lower and Higher Chatham Street to the south west of the Site. The Site can also be accessed by foot from Lower Ormond Street.

4.10. There is a difference in level change of 37.20 metres across the Site from Oxford Street to the east to Lower Ormond St to the west.

Connectivity

4.11. The Site is in a highly accessible location in Manchester City Centre and enjoys a range of excellent transport links and proximity to similar and necessary establishments. Numerous bus stops are located along the Oxford Road Corridor, along with Oxford Road Station and a major tram interchange at St Peter's Square. This provides sustainable transport options, all conveniently close to the Site. See below for accessibility breakdown by sustainable transport modes.

Rail

4.12. Oxford Road train station is located less than 0.5 metres away from the Site, meaning access to the wider city region is situated only a seven-minute walk away. Additionally, 1.2 km to the east of the Site is Manchester Piccadilly, another key transport link offering commuters access to major cities such as London and Birmingham.

Metrolink

4.13. St Peter's Square Tram Stop, a 12 – minute walk away from the Site offers multiple services taking commuters from the centre of Manchester to a variety of towns and neighbourhoods across the City Region, including Didsbury, Ashton-under-Lyne, Altrincham and Bury.

Bus

4.14. Bus stops are located within 100m of the Site, on Oxford Road, which is one of the main bus route corridors leading to the city centre, with high frequency bus services. The bus services close to the Site include: 50, 147, 191, 197, V1 Vantage and V2 Vantage, which provide connections to destinations such as Manchester City Centre, Leigh, Ancoats, Atherton, the Lowry and West and East Didsbury.

4.15. Additional bus stops are located on the A5067 Higher Cambridge Street, within 250m of the Site, which provide services connecting to Piccadilly Gardens.

Walking

4.16. The Site benefits from excellent pedestrian connectivity, with readily accessible transport infrastructure and a range of amenities within comfortable walking distance.

4.17. The Site's adjacency to other academic uses within Manchester Metropolitan University's All Saints campus at Oxford Road is ideal for students. The presence of numerous green spaces, including All Saints Park, contributes to a pleasant and healthy living environment.

Site Specific Environmental Designations

Air Quality

4.18. The Site is located within the Greater Manchester Air Quality Management Area (AQMA), referring to an area where air pollution levels are, or are likely to, exceed national air quality objectives. This means that the NO_2 is monitored, and the local authority has a strategy in place to manage and improve air quality in these areas.

Ecology

4.19. The site has no nature conservation designations, and no statutory protected sites are located on or immediately adjacent to it. While the Rochdale Canal Site of Special Scientific Interest (SSSI) and Special Area of Conservation (SAC) lies within 10km, no nationally designated or non-statutory sites are within 2km. The site's distance from all designated sites ensures the proposed works will not cause adverse impacts.

4.20. The Site is largely hard standing with five trees. As outlined within the submitted Ecological Assessment, the current hardstanding and on and off-site trees have low bat roosting potential. Therefore, subject to the implementation of suitable mitigation measures during the proposed works and provision of opportunities for bat-roosting at the post-development stage, the Proposed Development is in accordance with Bat Conservation Trust 'Good Practice Guidelines', statutory legislation and national and local policy.

Flood Risk and Drainage

4.21. According to The UK Governments Flood Map (Figure 4.3), the Site is located within Flood Zone 1, defined as having a low probability of flooding, meaning there is a less than 1 in 1,000 annual probability of river or sea

flooding. In addition, the Flood Risk Assessment prepared by Civic sets out the flood risk for the Site associated with all types of flooding, which is summarised as follows:

- Rivers and Sea – Very Low Risk.
- Reservoir – Very Low Risk.
- Groundwater – Low Risk. To be confirmed by site investigation.
- Surface Water – Low Risk (whilst areas of higher risk are present, these affect only a small portion of the development and thus the overall risk is deemed to be low).
- Public Sewers – To be confirmed by UU, presumed low.

4.22. As with the majority of the Regional Centre, the Site is located within the Conurbation Core Critical Drainage Area, as defined in the Manchester, Salford, Trafford Strategic Flood Risk Assessment (SFRA).

Built Heritage

4.23. The Whitworth Street Conservation Area is located c. 270m to the north of the Site.

4.24. Additionally, as confirmed by a search of the Historic Environment Record, the Site is not categorised as a Non-Designated Heritage Asset ('NDHA'). The All Saints Park adjacent to the Site is the only NDHA within the surrounding built environment.

4.25. Whilst the Site does not contain any heritage assets, there are 11 Listed Buildings located within 200m of the Site as listed below:

Table 4.1: Historic England Listed Asset List

Map No.	Location	Grade	List Entry Number
1	Former Manchester Ear Hospital	II	1197922
2	Roman Catholic Church of St Augustine	II	1392331
3	Ormond Building	II	1219718
4	Righton Building	II	1197781
5	Grosvenor Building	II	1293192
6	Former Town Hall Façade to Mabel Tylecote Building	II	1283062
7	Former Grosvenor Picture Palace	II	1218431
8	Former Adult Deaf and Dumb Institute	II	1200839
9	Chatham Mill	II	1293040
10	Dalton Statue in Forecourt of Dalton College	II	1197791
11	Dancehouse Theatre Including Numbers 6-14	II	1384997

Planning History

4.26. A search of the Site's planning history has been undertaken using MCC's Public Access system and those of relevance to the Site have been summarised below:

Table 4.2: Planning History

Planning Permission Ref.	Description of Development	Note
128485/FO/2020	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.	Adjacent to the Site. Approved 2 June 2021.
138424/FO/2023	Part demolition and redevelopment of existing library building to form new library (Use Class F1) including a new 13 storey building, external amenity spaces, public realm, access and servicing arrangements and other associated works	Approved 16 February 2024
140100/NMC/2024	Non material amendment to amend the wording of condition 3 (Materials) attached to planning permission 138424/FO/2023	Approved 5 July 2024
143943/FO/2025	Partial demolition, temporary weatherproofing and associated works to library building.	Submitted 10 September 2025. Pending determination.

Figure 4.1: UK Government Flood Map

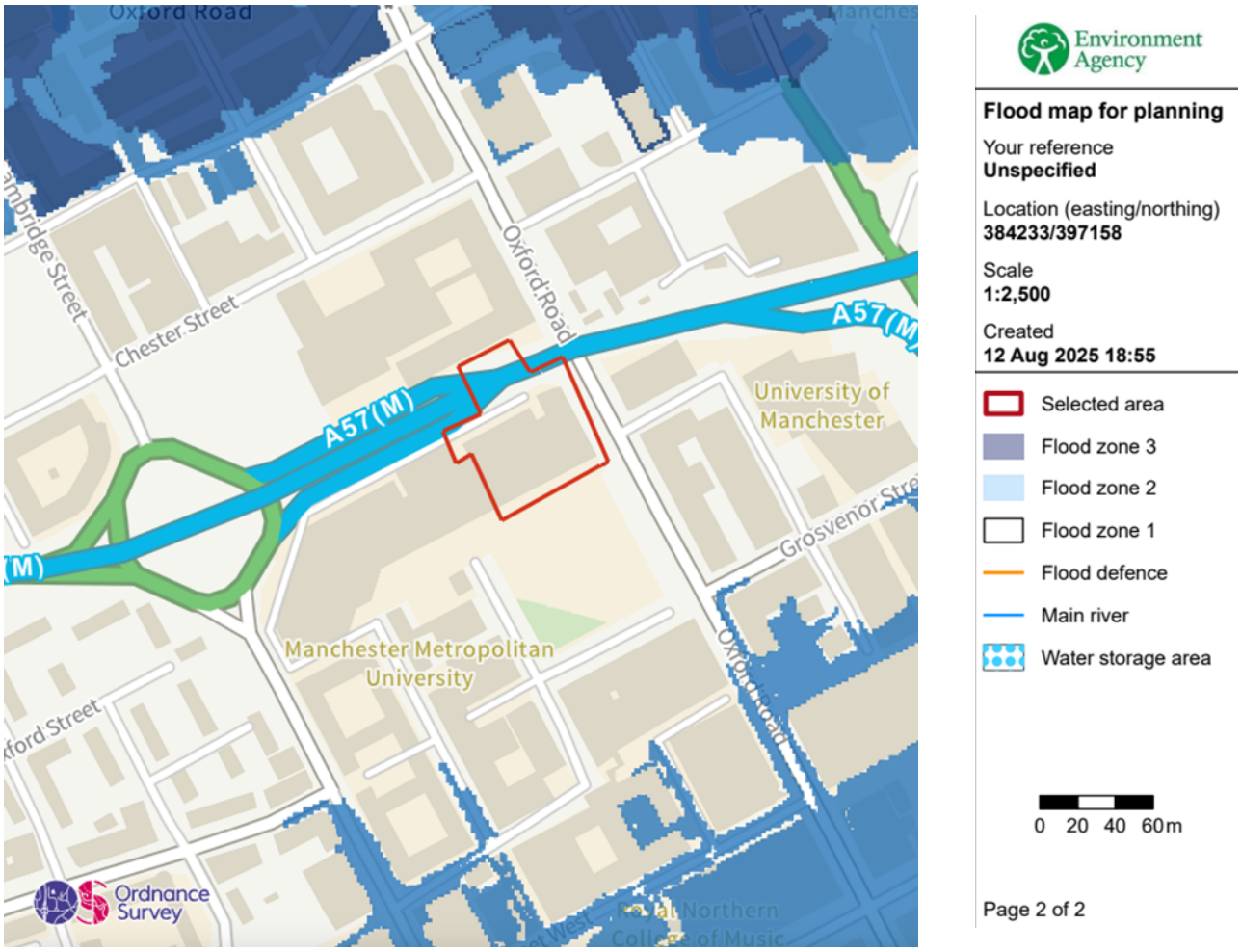


	Figure:	4.1		
	Title:	UK Government Flood Map		
	Project:	All Saints Library, Manchester Metropolitan University, Manchester		
	Date:	28/11/2025	**Scale:**	1:2500

Figure 4.2: Historic England Listed Asset Map

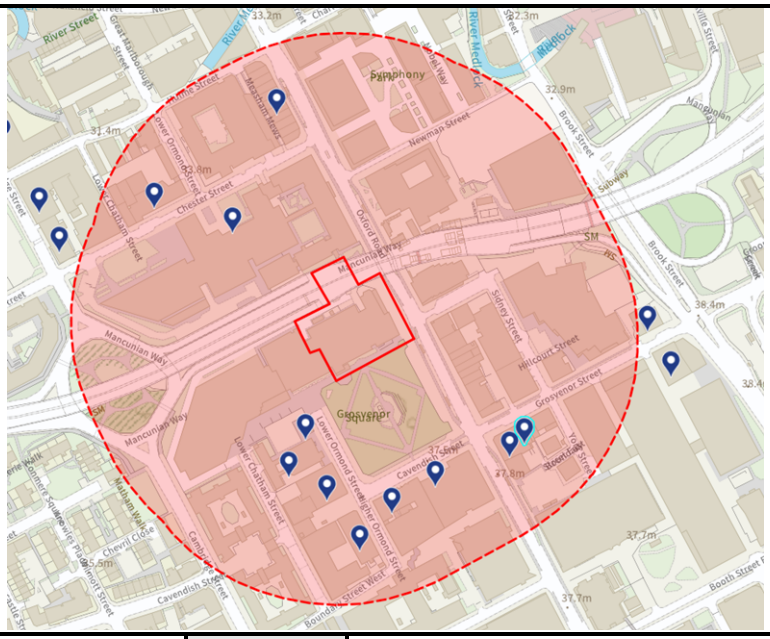


	Figure:	4.3		
	Title:	Historic England Listed Asset Map		
	Project:	All Saints Library, Manchester Metropolitan University, Manchester		
	Date:	19/11/2025	**Scale:**	Not To Scale

5. Construction Management – Programme and Methodology

Introduction

5.1. This has been prepared by Turner and Townsend and describes the Proposed Development programme and the likely key activities that will be undertaken. Consideration of potential impacts during the construction process and any necessary mitigation measures are provided in each relevant chapter. It should be read in conjunction with Appendix 5.1 (Outline CEMP).

5.2. It should be noted that this chapter relates to the construction phase only and should be read in conjunction with Chapter 5 of the demolition planning application ES (Appendix 1.1).

5.3. The main aim throughout the construction period is to minimise the impact on surrounding properties and roadways for the duration of the works. Close collaboration with all project teams of any construction projects and with neighbours in operating buildings will be maintained at all times to achieve this aim.

5.4. The main objective of this Chapter is to set out how construction works will be managed to avoid or mitigate adverse environmental impacts.

Programme

5.5. Subject to planning permission, the total construction programme will span a period of approximately 2.5 years for the New Build works. Within this period there will be elements of piling, ground works and foundations, frame construction, façade cladding, internal fit-out, and landscaping. Whilst there are several points that will determine the final programme and sequencing at the Proposed Development, subject to Planning Permission being granted the proposed key dates and durations are shown below:

- New Build – January 2027 – May 2030.

New Build Construction

5.1. Following demolition and ground remediation, the whole of the plot will be handed over to the main contractor to construct the new Library.

5.2. The Library consists of the delivery of a GF + 6 storeys + 2 storeys rooftop plant. The outline construction methods and timescales is as follows:

- Substructure: March 2027 – June 2027, comprising:
    - Installation of piles (assuming 1no. piling rig to install all piles).
    - Creation of ground floor slab and associated retaining structures
- Superstructure: November 2027 – July 2028
    - Insitu concrete core that will either be built using a jump form method that will be constructed on a level by level basis ahead of the main concrete frame or, the alternative method is slipform with the core constructed to full height prior to the main frame commencing.

- Insitu concrete frame, constructed on a level by level basis using table framework to install reinforcement and pour the concrete for each floor level. One tower cranes (luffer or saddle jib) will be utilised to lift all materials in place and move table form to various levels during construction. A concrete pumper will be used to pump concrete from ground level to the required pour level.

- Façade and Roofing: April 2028 – October 2028
  - The façade is a mix of Terracotta/Porcelain Rainscreen and curtain walling system. On completion of the frame, the façade will be installed level by level working bottom to top.
  - The roofing is a hot melt applied system to be installed following completion of the insitu concrete roof slab once cured and moisture content at the appropriate level.
- Internal Fit Out: May 2028 – January 2029
  - Internal fit out is a mix of Shell and Core, Library space and CAT B office space. All core spaces will be complete including lift lobbies, lifts and toilets, fit out will also include lower ground floor servicing and lobby areas. Food and beverage uses will be included in upper ground areas with reception spaces.
- Commissioning: January 2029 –May 2029
  - Commissioning of all electrical, mechanical and plumbing systems including associated witness testing, QA compliance and compliance with third parties including fire officer, building control and facilities management. During this period, the O&Ms will be finalised, QA checked and issued.
- External Works and New Square: June 2028 - December 2028
  - Landscaping and external works will commence during the fit out stages following completion of the structure and façade. Externals will be phased to allow continual access for material delivery and working around welfare arrangements.
  - Landscaping will be limited around the Library with site hoarding removed with access for the public.

Hours

5.3. The programme has been developed based upon normal working hours in line with Manchester City Council guidance of 0730hrs to 1800hrs Monday to Friday and 0800hrs to 1400hrs on Saturday. Outside of these hours, any works that take place will have been agreed in advance with the Council. Access to Site will be permitted 30 minutes prior to the working day commencing with noise kept to a minimum for the first hour of each shift. Any further out of hours working will be generally limited to internal fit out operations.

5.4. The close proximity of the neighbouring residents is noted and as such this methodology will be followed ensuring that the programme and working hours are adhered to in order to protect residential amenity.

Site Logistics

5.5. For the duration of the project, site offices and welfare will be located within the red line boundary. The offices and welfare are in close proximity to site and provide ample accommodation for site staff, operatives, and visitors. Access to site will be through a secure gate to enter the site or access the welfare accommodation.

5.6. Access to the Site will be controlled by electronic facial recognition through a secure metal turnstile. This will not only monitor operatives' movements but also prevent unauthorised public access during and out of working hours. The main gates will be locked secure at all times with the exception of when a delivery is being made. The gates will be manned by a qualified banksman who will co-ordinate traffic, bank deliveries as well as ensure the road and associated pavement areas are kept clear from debris and materials.

5.7. It is envisaged that construction vehicle access will utilise a one-way delivery system for access and egress on the Site. Accessing the site via Chatham Street.

5.8. Material storage will be contained within the Site boundary. All supply chain members will co-ordinate their respective needs with the site gateway and deliveries team. All deliveries will need to be booked in on an

online delivery system. This will help alleviate construction traffic in the surrounding area. Materials will be offloaded from the vehicle directly to the point of use wherever possible.

5.9. A permanent solid hoarding around the full perimeter of the Site will be erected prior to the start of the construction works proper. Please see Appendix 5.1.

5.10. The Site will operate a one way system with traffic exiting in the same direction as they entered. A detailed traffic plan will be agreed with the Highways Authority in advance of starting works on the site.

5.11. It is envisaged that the temporary site establishment and welfare space will be located within the red line boundary. The welfare facilities will be suitably sized to suit the anticipated number of operatives.

5.12. Any temporary public road or footpath closures associated with the construction phase will be agreed with Manchester City Council highways department and relevant diversion signage will be put in place.

5.13. Where required, appropriate wheel and vehicle wash facilities will be in place to ensure delivery wagons leave the Site clean and tidy with regular cleaning of adjacent roads using road sweepers.

5.14. Loading and unloading of material deliveries will occur within the site boundary unless exceptional circumstances require special measures to be instigated.

5.15. The Site will employ security guards as appropriate to prevent and discourage nuisance. Regular patrols will take place throughout the shift. As an additional measure, CCTV will be installed to elements of the Site and compound to aid early identification of potential issues.

Health and Safety

5.16. The project will be carried out in accordance with the Construction (Design and Management) Regulations 2015 and all other relevant legislation and guidance.

5.17. The Principal Contractor has not yet been tendered. Notwithstanding, the appointed Principal Contractor will have the appropriately trained management resource and procedures in place to oversee the activities of a complex, city centre construction project.

5.18. The Principal Contractor will produce a Construction Phase Health and Safety Plan prior to works commencing on site that will be reviewed and signed off by the client and their Principal Designer. This document will form the basis of the procedure for managing health and safety during the construction phase and will be periodically reviewed as the work progresses. This will address, amongst other things, flood risk, control of pollution, any required oversailing licences and relevant permits / consents required to complete the works.

Environmental Management

5.19. An Environmental Plan will be developed to address and monitor the following issues on site and to the surrounding area:

- Applicable environmental legislation
- Pollution
- Nuisance (noise, vibration, dusk, emission and light)
- Public relations

Environmental Legislation

5.20. Applicable environmental legislation will be identified in a register, to ensure that appropriate systems are put in place in order to comply with the legal requirements in question.

Pollution

5.21. Procedures will be established to ensure the prevention of water and ground pollution relating to the following risk activities:

- De-watering of the site (if required)
- Soil contamination remediation
- Earthworks (including piling, spoil movement and removal, and movement of contaminated soils)
- Concrete works (including washing out of concrete delivery vehicles and pumps)
- Storage and movement of fuels, oils, chemicals and other such fluids
- Cleaning (including plant, machinery and wheel washing).

Noise & Vibration

5.22. The principal concerns relating to the nuisances of noise and vibration come from construction activities such as demolition, excavation, cutting, breaking out and plant movements. Mitigation measures will be considered to include low noise options, noise attenuation techniques and carrying out certain activities during agreed hours of the day.

5.23. In order to minimise the noise, the Contractor will likely provide the following:

- Any compressors brought on to the Site to be silenced or sound reduced models fitted with acoustic enclosures.
- All pneumatic tools to be fitted with silencers or mufflers where available.
- Care to be taken when unloading vehicles to minimise noise. Delivery vehicles to be routed to minimise disturbance to students. Delivery vehicles to be prohibited from waiting within or in the vicinity of the Site with their engines running.
- All plant items to be properly maintained and operated according to manufacturers' recommendations in such a manner as to avoid causing excessive noise.
- Where possible, all plant to be sited so that the noise impact at nearby noise sensitive properties is minimised.
- Local hoarding, screens or barriers to be erected as necessary to shield particularly noisy activities.
- Project is utilising pre-fabricated façade panels that will equate to minimising deliveries to Site, crane operated installation and reduced site labour.

5.24. In order to minimise the vibration, the Contractor will likely provide the following:

- Adoption of low vibration working methods. Consideration should be given to use of the most suitable plant.
- Where processes could potentially give rise to significant levels of vibration, on-site vibration levels should be monitored regularly by a suitably qualified person.
- Where piling is to take place, any obstructions should first be removed.
- Application of piling techniques aimed at reducing resistance to penetration e.g. pre-boring for driven piles and adding water to the hole for impact bored piles.

Dust

5.25. The principal concerns relating to air quality and emissions form construction activities are in the form of dust and fumes. The degree of dust deposition is usually dependent on the nature of the works. Increased levels of dust are most likely to occur during site activities related to demolition, piling, moving construction traffic and ground works.

5.26. In order to minimise the dust and fumes, the Contractor will likely provide the following:

- Providing a hard surface where vehicle movements occur
- Control measures and dust suppression techniques.
- Minimising stock piling and positioning in a manner that reduces risk of dust arising through wind action.
- Measures such as screening and covering.
- Installation of appropriate wheel and body wash facilities.
- Keeping of adjacent roads and pavements clean.
- Ensure plant is turned off and not left running when not in use.
- Selection of electrically powered plant where possible in lieu of diesel or petrol plant.

Public Relations

5.27. To align with the University objectives, the Contractor will ensure that regular contact is made with local residents and community groups to ensure they are kept up to date with general progress on the Site. The Contractor will display a contact number on hoardings which will be operational 24/7.

5.28. The Contractor will be obliged to follow the Considerate Constructor's Scheme.

Waste Management Strategy

5.29. In line with the "Site Waste Management Plan Regulations 2013", a Site Waste Management Plan (SWMP) will be developed by the principal contractor and agreed with Manchester City Council.

Operational Waste Removal

5.30. All waste generated during the construction phase will be disposed of using skips that have been supplied by reputable suppliers. Waste management licences and waste carrier's licences will be obtained from all suppliers prior to removing the waste from site thus ensuring that all waste has been dealt with in accordance with the regulations.

5.31. Any hazardous waste i.e. empty spray paint cans, oil rags etc. will be disposed of in the site hazardous waste drums. Once these are full, they will be collected and disposed of by the Contractor's designated waste management contractor.

5.32. Some of the waste produced during the construction phase will be recyclable and the waste collection contractor will segregate (off site) all the waste that can be recycled. All spoil arisings from the groundworks will either be removed from site or used as capping material where permitted. Designated skips will be used to recycle other waste.

5.33. Effective management of waste will consist of the following measures:

- Closed skip container (food waste etc.)

- Regular clean-up of the site
- Careful handling and transportation to avoid damage
- Efficient ordering
- Off-site manufacturing (where possible)
- Skips will be located in the site storage compound.

5.34. To reduce the volume of waste sent to landfill, waste from site will be segregated at the waste transfer station into the following categories.

- CAT A: Hazardous waste – paint tins, mastic etc
- CAT B: Metal
- CAT C: Timber
- CAT D: Plasterboard
- CAT E: General Waste

5.35. All carriers of waste will hold a valid waste transfer licence and provide certification to the main contractor for all elements of the process.

6. Townscape Visual Impact Assessment

Introduction

6.1. This Chapter of the ES has been prepared by Planit Ltd and assesses the likely Townscape and Visual Impacts (TVIA) of the Proposed Development upon the Site and surrounding area. This Chapter also describes the methods used to assess these impacts, the existing baseline conditions, the proposed mitigation measures required to prevent, reduce or offset any significant negative impacts and the likely residual impacts after these methods have been adopted.

6.2. This Chapter is accompanied by two technical appendices: Townscape Figures, Baseline & Assessment Tables **Appendix 6.1**, and Views and Photomontages, Baseline & Assessment Tables **Appendix 6.2**.

6.3. The author of this chapter is John Willerton from Planit. John has over 25 years' of consultancy experience working as a Landscape Architect and Urban Designer, and over 15 years' experience authoring Townscape and Visual Impact Assessments, including assessments for a number of high-profile schemes within Manchester. He leads the Planit TVIA team and has extensive experience of delivering robust 'Guidelines for Landscape and Visual Impact Assessment' (GLVIA) compliant assessments for both public sector and private clients, at a range of scales from individual tall buildings within urban contexts through to large, complex residential development in suburban / rural areas.

6.4. The scope of the information presented in this Chapter has been informed by the Council's Scoping Opinion, received in October 2025 (EIASCO/25/008).

Table 6.1: Details of Chapter Authors

	Lead Author	Reviewer
Name	John Willerton	Adam Fall
Company	Planit Ltd	Planit Ltd
Qualifications/Accreditations relevant to technical area inc. IEMA	BA (Hons), Dip LA, CMLI	BSc (Hons), Dip UD, Recognised UD Practitioner
Years technical experience (in technical area)	15 years	2 years
Number of EIA's delivered to date	20+	3

Assumptions and Limitations

6.5. The methodology described within this assessment provides a robust and transparent process for assessment of townscape and visual effects. Production of verified photomontage views provides a high level of detail and technical accuracy. The TVIA process is based on the GLVIA guidelines, and the assessment has been presented in a tabular format in **Appendices 6.1** and **6.2**. The assessment is carried out by a team of assessors to provide scrutiny where professional judgement is relied upon.

6.6. The characterisation of baseline conditions has relied on publicly available data, such as OS mapping information, topographic and 3D data and Historic England heritage mapping. While best endeavours have been made to ensure that the data used are up to date, it has been assumed that the data presented by third parties is accurate and appropriate to inform our baseline and assessment.

6.7. Verified views have been produced to provide a high level of confidence in the assessment of effects resulting from the Proposed Development.

Relevant Legislation, Policy and Guidance

Legislation

6.8. The European Landscape Convention (ELC, 2000) provides a foundation for closer co-operation on landscape issues across Europe and was ratified in the UK on the 21 November 2006 and became binding on 1 March 2007. The convention identifies the need to recognise landscape in law, to develop and promote landscape policies dedicated to the protection, management and creation of landscapes, and to establish procedures for the participation of the general public and other stakeholders in the evolution and implementation of landscape policies. It also encourages the integration of landscape into all relevant areas of policy, including cultural, economic and social policies.

6.9. The ELC defines landscape as '*an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors'*. It recognises that landscape has important cultural, ecological, environmental and social dimensions and is a key element of achieving sustainable development. In this context the use of the word 'landscape' is more appropriately termed 'townscape' though the constituent factors remain consistent.

Policy

National

6.10. The National Planning Policy Framework was revised on 12 December 2024, and sets out the government's planning policies for England and how these are expected to be applied. Guidance detail differs from that stated in the 2023 version, although the general importance of good design, promoting healthy communities and conserving / enhancing the natural environment is reflected in the updated guidance below.

6.11. The purpose of the planning system is to contribute to the achievement of sustainable development through three overarching objectives:

- An economic objective - to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;
- A social objective – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering a well-designed and safe built environment, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and,
- An environmental objective – to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.

6.12. The environmental objective is of particular relevance to the purpose of townscape and visual impact assessment.

6.13. Section 12 of the NPPF deals with the requirements of good design. The overarching principle is set out in paragraph 131, which state, "the creation of high-quality buildings and places is fundamental to what the planning and development process should achieve. Good design is a key aspect of sustainable development, creates better places in which to live and work and helps make development acceptable to communities."

6.14. Paragraph 135 of the NPPF sets out a number of principals of good design. In order to accord with these principles, it should be ensured that new developments:

- Will function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development;
- Are visually attractive as a result of good architecture, layout and appropriate and effective landscaping;

- Are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change (such as increased densities);
- Establish or maintain a strong sense of place, using the arrangement of streets, spaces, building types and materials to create attractive, welcoming and distinctive places to live, work and visit;
- Optimise the potential of the Site to accommodate and sustain an appropriate amount and mix of development (including green and other public space) and support local facilities and transport networks; and,
- 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; and where crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion and resilience.

6.15. Section 16 of the NPPF concerns conserving and enhancing the historic environment. Paragraph 202 states that heritage assets are, "an irreplaceable resource, and should be conserved in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of existing and future generations".

6.16. Whilst the Site is not located in a Conservation Area and does not contain listed buildings, heritage is an intrinsic part of townscape assessment and potential views from Conservation Areas and the context around listed buildings and parks have been considered as part of the assessment. There is also an overarching desirability set out within the NPPF for new development to contribute positively to local character and distinctiveness.

Regional / Local

Manchester Core Strategy and Places for Everyone (PfE) Joint Development Plan

6.17. Manchester's Core Strategy was adopted in July 2012 and partly updated following the adoption of the PfE Joint Development Plan in March 2024. The Addendum to Manchester Core Strategy 2024 lists sections of policies replaced by PfE policies and must be read alongside the Core Strategy. Relevant policies from the Core Strategy for the purposes of this chapter are outlined below:

Policy EN1 Design Principles and Strategic Character Areas

6.18. All development in Manchester will be expected to follow the seven principles of urban design, as identified in national planning guidance and listed above and have regard to the strategic character area in which the development is located. Opportunities for good design to enhance the overall image of the City should be fully realised, particularly on major radial and orbital road and rail routes.

6.19. The City Centre contains a rich legacy, which reflects its urban evolution to the current day and includes listed buildings, conservation areas, archaeological remains and an historic street pattern. Its core area presents a particularly dense environment that accommodates a wide and closely integrated range of uses including commercial, civic and residential activities.

6.20. The Site is located within Strategic Area 2: The Corridor (Higher Education Precinct (HEP)) Character Area. This area contains major educational and medical institutions located alongside a linear route in a variety of large-scale buildings. Underlying this are remnants of the historic past such as the grid iron street pattern dating principally from the 19th Century. The area contains a network of open spaces often resulting from more recent developments and is busy especially with public transport and pedestrian movement through much of the 24-hour day with patterns of movement linking areas to both sides of Oxford Road. The Corridor represents the only area where the levels of activity, range of uses and scale of built form associated with the City Centre extend beyond the Mancunian Way.

- New development needs to reflect the significant scale and form expected from major City institutions and opportunities will exist for more innovative and contemporary built forms, which have regard to the historic context.
- A balance between built form and open space which allows for easy movement through and across the area will be required.

6.21. Historic England Advice Note 4 Tall Buildings:

- Developers will be expected to consider the City's heritage and continue the rich pattern of activity in the core area.
- While there will be opportunities to create landmark buildings, developments should also contribute positively to the experience of all at street level.
- Wherever possible the opportunity should be realised to enhance existing and provide new areas of meaningful open space, and the maintenance and improvement of the City's permeability should be considered in all proposals.

Policy EN3 Heritage

6.22. "Throughout the City, the Council will encourage development that complements and takes advantage of the distinct historic and heritage features of its districts and neighbourhoods, including those of City Centre."

6.23. Local Planning Authorities will proactively manage and work with partners to positively conserve, sustain and enhance the historic environment and heritage assets and their settings. Opportunities will be pursued to aid the promotion, enjoyment, understanding and interpretation of heritage assets, as a means of maximising wider public benefits and reinforcing Greater Manchester's distinct character, identity and sense of place (Updated PfE policy).

6.24. Proposals which enable the re-use of heritage assets will be encouraged where they are considered consistent with the significance of the heritage asset.

Policy CC9 Design and Heritage

6.25. Development in Manchester City Centre should preserve or enhance the heritage assets that have been identified, including listed buildings, conservation areas and scheduled ancient monuments.

Policy EN9 Green Infrastructure

6.26. New development will be expected to maintain existing green infrastructure in terms of its quantity, quality and multiple function. Where the opportunity arises and in accordance with current Green Infrastructure Strategies the Council will encourage developers to enhance the quality and quantity of green infrastructure, improve the performance of its functions and create and improve linkages to and between areas of green infrastructure. Where the benefits of a proposed development are considered to outweigh the loss of an existing element of green infrastructure, the developer will be required to demonstrate how this loss will be mitigated in terms of quantity, quality, function and future management.

6.27. The Council will seek to protect existing street trees and promote new planting, particularly where this can enhance green links in the urban area.

6.28. The provision of new, and improvements to the quality and accessibility of existing green infrastructure assets, to mitigate for any loss of green infrastructure.

Policy DM1 Development Management

6.29. All new developments should follow the 'Development Principles' and accord with the design guidance set out in the Supplementary Planning Documents. The key principle of relevance to this assessment is defined as follows:

- Appropriate siting, layout, scale, form, massing, materials and detail. Impact on the surrounding areas in terms of the design, scale and appearance of the proposed development. Development should have regard to the character of the surrounding area.

Guide to Development in Manchester SPD (2007)

6.30. In accordance with the Guide to Development in Manchester SPD, development in Manchester will be expected to follow the seven design principles set out below:

- Character: a place with its own identity.
- Continuity and enclosure: a place where public and private places are clearly distinguished.
- Quality of the public realm: a place with attractive, and successful outdoor areas.
- Ease of movement: a place that is easy to get to and move through.
- Legibility: a place that has a clear image and is easy to understand.

- Adaptability: a place that can change easily.
- Diversity: a place with variety and choice.

Guidance

6.31. The following guidance has been used in the assessment:

- Guidelines for Landscape & Visual Impact Assessment, 3rd Edition, 2013;
- Landscape Institute Technical Guidance Note 06/19 'Visual Representation of Development Proposals' (Landscape Institute, 2019);
- Planning Practice Guidance; and
- ISEP Environmental Impact Assessment Guide to Shaping Quality Development, 2015.
- Historic England Advice Note 4 Tall Buildings. V2.0 2022

Assessment Methodology and Significance Criteria

Scenarios Tested

6.32. The following assessment scenarios have been considered within this Chapter:

- ('Scenario 1' within table 2.1) Existing Baseline (Site as of November 2025)
- ('Scenario 3' within table 2.1) Existing Baseline + Proposed Development
- ('Scenario 4' within table 2.1) Existing Baseline + Proposed Development + Cumulative

Future Baseline Scenario

6.33. The future baseline scenario comprises the consideration of the Application Site where the library building has been demolished prior to the construction and completion of the Proposed Development. It is worth noting that this would likely change the nature of the site's character, building heights, and contribution to townscape character, leaving an empty vacant site in place of the existing building – albeit a now vacated building in the University Campus. Despite the change in character, the overall baseline sensitivity assessment for the selected townscape and visual receptors are unlikely to differ from that of the existing baseline, and therefore not likely to change any further assessment outcomes. As a result, it is considered that the existing baseline can already be considered as the 'worst case scenario' for the purposes of a robust assessment, and further consideration of the future baseline scenario has been scoped out of this chapter.

The Study Area

6.34. The study area for this assessment is illustrated in **Figure 6.1** in **Appendix 6.1**. The assessment has considered the Proposed Development within the wider city context.

Surveys and Data Sources

6.35. Desk based studies were carried out to collate and map baseline townscape information and carry out a review of policy and guidance to inform the assessment.

6.36. Potential viewpoints were initially identified through a process of desktop and on-site survey before being checked on site. Viewpoints were excluded where there was likely to be no significant impact beyond that which was already identified within the selected views.

6.37. Photographs for the selected viewpoints were taken by a professional photographer in October 2025. Whilst it is noted that the baseline for the assessment is based on the site as of November 2025, these photographs are considered to be an accurate representation of the site and surrounding area, with no material changes or alterations experienced between the two dates. The visualisations were produced by Virtual Planit, a professional visualisation studio with extensive experience in the production of photomontages. The photography and visualisations were both produced to accord with best practice, in accordance with the Landscape Institute technical guidance note, "Visual Representation of Development Proposals', September 2019.

6.38. In order to provide the most comprehensive, rounded and objective view of the Townscape and Visual Impacts of the Proposed Development, assessed effects have been agreed following a roundtable review by a team of individual assessors.

Source of Effect

6.39. This assessment has been carried out with reference to the Guidelines for Landscape and Visual Impact Assessment, 3rd Edition, 2013 (referred to hereafter as "the Guidelines") by Planit-IE Ltd, a registered practice of the Landscape Institute with considerable experience in landscape and visual assessment.

6.40. A three-stage assessment process has been adopted. Firstly, the nature of receptors (sensitivity) has been assessed, and secondly, the nature of effects (magnitude) likely to result from the proposed development has been assessment. From this, the overall significance of the identified effects on receptors have been assessed.

6.41. The methodology is collated into a tabulated format where possible to provide structure for a consistent and methodical approach. Criteria and justifications are recorded in Appendix 6.1 and 6.2 for transparency. The overall assessment of significance has regard to paragraph 5.56, page 92 (significance of landscape effects) and paragraph 6.44, page 116 (significance of visual effects) of the Guidelines.

Sources of Effect – Construction

6.42. The following sources of construction effects are considered within this Chapter. Further information on the technical assessment is contained in Appendices 6.1 and 6.2.

- Changes to Townscape Character - There are potential changes to the townscape character due to construction works resulting in a partial loss or change to the 'sense of place' of the existing townscape.
- Changes to Urban Grain - There are potential changes due to demolition and construction works resulting in a partial loss or change to the existing urban grain.
- Changes to Building Heights - There are potential changes due to demolition and construction works resulting in a partial loss or change to the existing building heights.
- Changes to Movement and Linkages - There are potential changes due to demolition and construction works resulting in a partial loss or change to the existing movement and linkages.
- Changes to Environmental Designations and Public Open Space - There are potential changes due to demolition and construction works resulting in a partial loss or change to existing designations and public open spaces.
- Changes to Site Character - There are potential changes due to demolition and construction works resulting in a partial loss or change to the existing site character.
- Changes to Character and Amenity of Views - There are potential changes due to the introduction of demolition and construction activity changing the amenity and character of the 7 identified key views (as shown within Appendix 6.2), as a result of:
  - Presence of the site compound(s);
  - Erection of site boundary fencing;
  - Site clearance;
  - Groundworks and the creation of new landforms;
  - Contractor parking, plant and equipment storage;
  - Presence of construction traffic; and
  - Night-time (security and winter) lighting.

6.43. The above-listed construction effects were assessed in accordance with the methodology prescribed within the Guidelines, taking into account the sensitivity and magnitude to change of each receptor.

Sources of Effect – Operational

6.44. The following sources of operational effects are considered within this Chapter. Further information on the technical assessment is contained in Appendices 6.1 and 6.2.

- Changes to Townscape Character - There are potential changes to the townscape character due to the operational development resulting in a change to the 'sense of place' of the existing townscape.
- Changes to Urban Grain - There are potential changes to the urban grain as a result of new built form in the operational phase.
- Changes to Building Heights - There are potential changes to the building heights as a result of new built form in the operational phase.
- Changes to Movement and Linkages - There are potential changes to the movement and linkages as a result of integration of a new movement hierarchy for vehicles, cyclists and pedestrians in the operational phase.
- Changes to Environmental Designations and Public Open Space - There are potential changes to designations and public open spaces as a result of the creation of new landscaping and public spaces in the operational phase.
- Changes to Site Character - There are potential changes to existing site character as a result of the creation of new defining site features, including built form, landscaping and open space.
- Changes to Character and Amenity of Views - There are potential changes due to the introduction of the Proposed Development changing the amenity and character of the 7 identified key views (as shown within Appendix 6.2), as a result of:
  - Changes to built form;
  - Changes to land uses;
  - Changes to movement and linkages;
  - Changes to areas of public realm and public open spaces; and
  - Changes to the existing townscape character.

6.45. The above-listed operational effects were assessed in accordance with the methodology prescribed within the Guidelines, taking into account the sensitivity and magnitude to change of each receptor.

Significance Criteria – Assessment of Sensitivity

Criteria for Determining Sensitivity of Townscape Receptors

6.46. Townscapes may be valued at community, local, national level or above. Existing townscape designations have been taken as the starting point for this assessment, as shown in Table 6.2 below. However, the value attached to undesignated townscapes also needs to be assessed and this is considered in Table 6.3.

6.47. Table 6.2 sets out the relative importance of generic townscape designations and descriptions.

Table 6.2: Criteria for assessing the value of Designated Townscapes

Sensitivity	Examples of Receptor
High	The receptor/resource has little ability to absorb change without fundamentally altering its present character, or is of international or national importance.
Medium	The receptor/resource has moderate capacity to absorb change without significantly altering its present character, or is of high importance.
Low	The receptor/resource is tolerant of change without detriment to its character, is of low or local importance.

6.48. Whilst the assessment of value is partly based on the Planning Policy importance of the townscape, other criteria used to assess townscape value in more detail, including that of undesignated townscape, are set out in Table 6.3 below. The criteria are taken from the Planning Practice Guidance that supports the National Planning Policy Framework.

Table 6.3: Criteria for assessing the value of Non-Designated Townscapes

Attribute	Criteria
Functional	A building or place should be fit for purpose, designed and delivered in a way that delivers the intended function and achieves value for money in terms of lifetime costs.
Mix of uses	Mix of uses to ensure easy access to facilities and encourage a healthier environment, reducing the need to travel.
Well-designed public space	Functional and attractive hard and soft landscape elements, well orientated and designed routes, inclusion of facilities such as seats and play equipment and public art.
Buildings designed to be adaptable	Flexibility to be able to respond to a range of future needs – how easily buildings change be adapted for change of use, places that are easy and practical to manage with good access, natural surveillance and hard-wearing materials that are easy to repair.
Distinctive character	Consideration of the local pattern of street blocks and plots; building forms; details and materials; style and vernacular.
Attractive spaces	Consideration of streetscapes, townscapes, buildings and elements within them all, microclimates and views should all be considered. This is also affected by the way a townscape is perceived using the senses and the effect of transient elements such as the presence of human activity and resulting tranquillity or vibrancy.
Promotes ease of movement	All users should be able to move safely, conveniently and efficiently to and within a place, appropriate number of legible routes to and through it, good connections with each other and other destinations.

6.49. An overall assessment of value has been made for each townscape receptor (refer to Appendix 6.1), based on an overview of the assessments made using each of the above criteria, in terms of high, medium and low value. The assessment of the value of a non-designated townscape is based on professional judgement, according to Table 6.4 below:

Table 6.4: Criteria for assessing the value of Non-Designated Townscapes

Value	Description
High	Sites, features or areas that display the relevant criteria above to a 'high' extent.
Medium	Sites, features or areas that display the relevant criteria above to a 'medium' extent.
Low	Sites, features or areas that display the relevant criteria above to a 'low' or 'negligible' extent.

Susceptibility of Townscape Receptors to Change

6.50. Susceptibility to change is the ability of a townscape receptor to accommodate the specific Proposed Development without undue negative consequences.

6.51. The susceptibility of townscape receptors to change has been assessed using the criteria set out in Table 6.5 with reference to the baseline conditions.

Table 6.5: Townscape Receptor Susceptibility to Change

Susceptibility	Criteria
High	Little ability to accommodate the proposed development without undue harm.
Medium	Some ability to accommodate the proposed development without undue harm.
Low	Substantial ability to accommodate the proposed development without undue harm.

Overall Sensitivity of Townscape Receptors

6.52. The assessment of receptor sensitivity combines judgements on the susceptibility of the receptor to the specific type of development proposed and the value attributed to that receptor, in accordance with the matrix in Table 6.6.

Table 6.6: Overall Sensitivity of Townscape Receptors

		Susceptibility to Change		
Townscape Value		**High**	**Medium**	**Low**
	High	High	Medium/high	Medium
	Medium	Medium/high	Medium	Low/medium
	Low	Medium	Low/medium	Low
Where a townscape receptor's sensitivity is assessed to be either medium/high or low/medium, professional judgement will be applied to determine the appropriate score of sensitivity.				

Criteria for Determining Sensitivity of Visual Receptors

6.53. In terms of assessing the visual baseline sensitivity, a key factor to consider is the type of view the number of users, and perceived value attached to the view. Following on from this, we have established the overall value of the view. In accordance with the Guidelines, the following range of factors have been considered:

- The nature of the view - glimpsed (i.e. in passing)/filtered/oblique/framed/open views;
- The number of viewers - few/moderate/many viewers;
- The distance between the viewpoint and the site;
- Whether it is a stationary or transitory view from a footpath or moving vehicular; and
- The current skyline, visual complexity of the view and current focus.

6.54. The perceived value attached to views also has regard to a number of factors, including:

- Recognition through planning designations or heritage assets; and
- The popularity of the viewpoint, its appearance in guidebooks, literature or art, on tourist maps and the facilities provided for its enjoyment.

6.55. The assessment on the value of views is summarised in Table 6.7 below, in terms of High, Medium and Low value. These criteria are provided for guidance only and are not intended to be absolute.

Table 6.7: Criteria for assessing the value of views

Value	Description of Criteria
High	Views from townscapes/viewpoints of national importance, or highly popular visitor attractions where the view forms an important part of the experience or with important cultural associations.
Medium	Views from townscapes/viewpoints of regional/district importance, or moderately popular visitor attractions where the view forms part of the experience, or with local cultural associations.
Low	Views from townscapes/viewpoints with limited designations, not particularly popular as a viewpoint with minimal or no cultural associations.

Susceptibility of Visual **Receptors to Change**

6.56. In terms of assessing the visual baseline sensitivity, a key factor to consider is the type of view the number of users, The susceptibility of different types of people to changes in views, is mainly a function of:

- The occupation or activity of the viewer at a given location; and
- The extent to which a person's attention or interest may therefore be focussed on a view and the visual amenity experienced at a given view.

6.57. The assessment of a visual receptor to change is specific to the Proposed Development. However, the Guidelines offers the following generic guidance identified in Table 6.8 as a starting point for the assessment:

Table 6.8: Visual Receptor Susceptibility to Change

Susceptibility	Description of Criteria
High	Users of public space, including users of public rights of way, whose attention is likely to be focussed on the townscape and on particular views; Visitors to heritage assets or other attractions where views of the surroundings are an important part of the experience; Communities where views contribute to the townscape setting enjoyed by residents; and, Travellers on scenic routes.
Moderate	Travellers on road, rail or other transport routes, where the view is moderately important to the quality of the journey; and, Users of public space, where the view is a part of the wider experience of the place.
Low	People at their place of work, where the setting is not important to the quality of working life; Travellers on road, rail or other transport routes, where the view is fleeting and incidental to the journey; and, People engaged in outdoor sport or recreation, or users of a public space, which does not involve appreciation of views.

6.58. The Guidelines qualifies the above examples as follows: *"This division is not black and white and in reality, there will be a gradation in susceptibility to change. Each project needs to consider the nature of the groups of people who will be affected and the extent to which their attention is likely to be focussed on views and visual amenity."* (page 114, paragraph 6.35).

Overall Sensitivity of Visual Receptors

6.59. The assessment of visual sensitivity combines judgements on the susceptibility of the receptor to the specific type of development proposed and the value attributed to that receptor in accordance with the matrix in **Table 6.9** below, alongside professional judgement.

Table 6.9: Visual Receptor Susceptibility to Change

	Susceptibility to Change			
Visual Value		**High**	**Medium**	**Low**
	High	High	Medium/high	Medium
	Medium	Medium/high	Medium	Low/medium
	Low	Medium	Low/medium	Low
Where a visual receptor's sensitivity is assessed to be either medium/high or low/medium, professional judgement will be applied to determine the appropriate score of sensitivity.				

Significance Criteria – Assessment of Magnitude

6.60. The magnitude of a townscape effect is assessed in terms of its size or scale, the geographical extent of the area influenced by that effect, its duration and degree of reversibility and the impact these are likely to have on the baseline character of the townscape or visual receptor.

Size and Scale of Effects

6.61. The size and/or scale of effects relates to the scale of physical changes in the townscape and the scale of the visible change in views, such as the loss or addition of features. This is broadly rated along the following scale:

- No Change – change will not be perceptible.
- Negligible – change will be just discernible.
- Minor – a small change will be perceptible.
- Moderate – change will be clearly noticeable.
- Major – total change will occur.

Geographical Extent of Effects

6.62. The geographical extent of effects relates to:

- The area over which townscape effects are likely to be experienced, i.e., this could be at the Site level, the immediate locality, across a neighbourhood or across a series of neighbourhoods (city-wide);
- The area over which the changes are likely to be visible, i.e., viewpoint within the Site, viewpoint within the immediate locality, viewpoint across/ through a neighbourhood or a vista or vantage point across neighbourhoods or the city skyline (city-wide).

Duration / Reversibility

6.63. Effects may be experienced over a range of timescales. For this assessment, the following timescales are considered appropriate:

- Short-term: 5 years or below.

- Long-term: Greater than 5 years in duration.

6.64. Effects may be temporary, permanent or reversible over time. For example, visual effects arising from construction activities may be limited solely to the construction period and therefore only temporary. The assessment therefore considers the practicality of effects being reversed.

Magnitude of Townscape Effects

6.65. Alongside the size, scale, geographical extent, and duration and degree of reversibility, a townscape impact also considers:

- The extent / proportion of townscape elements lost or added;
- The contribution of that element to townscape character and the degree to which aesthetic/perceptual aspects are altered; and,
- Whether the effect is likely to change the key characteristics of the townscape, which are critical to its distinctive character.

6.66. Magnitude of townscape effects has been assessed using the criteria identified in Table 6.10, with reference to the baseline conditions.

Table 6.10: Magnitude of Townscape Effects

Magnitude of Impact	Criteria for Assessing Effect
Major	Total or major alteration to key elements, features, qualities or characteristics of the townscape, such that post development, the baseline situation will be fundamentally changed.
Moderate	Partial alteration to key elements, features, qualities or characteristics of the townscape, such that post development the baseline situation will be noticeably changed.
Minor	Small alteration to key elements, features, qualities or characteristics of the townscape, such that post development the baseline situation will be largely unchanged despite discernible differences.
Negligible	Discernible change to key elements, features, qualities or characteristics of the townscape that are barely perceived.
No change	The proposals will cause no change to the townscape elements, features, qualities or characteristics.

Magnitude of Visual Effects

6.67. The magnitude of change to a visual receptor relates to the degree of contrast or integration likely to result from the Proposed Development and is influenced by the relative time over which a view is experienced and whether it is an open, partial or glimpsed view.

6.68. The magnitude of impact criteria for visual receptors is shown in Table 6.11 below.

Table 6.11: Magnitude of Visual Effects

Magnitude of Impact	Criteria for Assessing Effect
Major	The proposals will cause a dominant or complete change or contrast to the view, resulting from the loss or addition of substantial features in the view and will substantially alter the appreciation of the view.
Moderate	The proposals will cause a clearly noticeable change or contrast to the view, which would have some effect on the composition, resulting from the loss or addition of features in the view and will noticeably alter the appreciation of the view.
Minor	The proposals will cause a perceptible change or contrast to the view, which would not materially affect the composition or the appreciation of the view.
Negligible	The proposals will cause a barely perceptible change or contrast to the view, which would not affect the composition or the appreciation of the view.
No change	The proposals will cause no change to the view.

6.69. The significance of effect is a product of the sensitivity of the receptor and the magnitude of the impact. **Table 6.12** sets out how the significance of effects has been ascribed in this technical assessment, for both townscape and visual effects.

6.70. The table has regard to guidance in the Guidelines, at paragraph 5.56, page 92 (significance of landscape effects) and paragraph 6.44, page 116 (significance of visual effects).

Table 6.12: Assessment of Significance Matrix

Magnitude of Impact	Sensitivity		
	High	Medium	Low
Major	Major Adverse/Beneficial	Major - Moderate Adverse/Beneficial	Moderate or Minor Adverse/Beneficial
Moderate	Major - Moderate Adverse/Beneficial	Moderate Adverse/Beneficial	Minor Adverse/Beneficial
Minor	Moderate or Minor Adverse/Beneficial	Minor Adverse/Beneficial	Minor or Negligible Adverse/Beneficial
Negligible	Negligible	Negligible	Negligible

6.71. The nature of effects may be positive or negative (beneficial or adverse), or neutral. Neutral effects recognise that there will be a change to the receptors, however this change is in keeping with the existing characteristics of the receptor.

6.72. Effects may also be direct or indirect. Direct effects are those that result directly from a development itself, whereas indirect effects may arise as a consequential change resulting from development.

6.73. For the purpose of the Townscape and Visual Impact Assessment, effects of **moderate significance and above** are considered to be 'significant' in the meaning of EIA Regulations (2017). This acknowledges the degree of change that it is taking place within the wider townscape, and the Proposed Development's overall fit within delivering the aspirations of the City through adopted policy for growth, and enhancement of the Oxford Road Corridor and the Universities through its Estate Strategy.

Baseline Conditions

6.74. The Site is within Manchester City Centre and is bound by Oxford Road to the east, by the Mancunian Way to the north, Manchester Metropolitan University's Faculty of Business and Law to the west, and All Saint's Park to the south. The Site currently comprises the vacant All Saint's Library building – a seven-storey brick building. The building on site is considered no longer fit for purpose and has been vacant since summer 2024.

6.75. The Whitworth Street Conservation Area is located c. 270m to the north of the Site.

6.76. There are several listed buildings in the vicinity of the Site, most notably those surrounding All Saints Park to the west and south. Additionally, as confirmed by a search of the Historic Environment Record, the Site is not categorised as a Non-Designated Heritage Asset ('NDHA'). The All Saints Park adjacent to the Site is the only NDHA within the surrounding built environment.

6.77. Pedestrian access is currently from All Saints Park to the south of the building. There is no public access to the building from Oxford Road. No car parking is associated with the library building.

6.78. The Site forms a key location along the Oxford Road Corridor, a priority location for higher education and an opportunity to strengthen and diversify the economy by creating high added value growth in sectors such as Creative and Digital, Health, Science and Innovation, and Advanced Materials and Engineering.

6.79. Currently the Site represents one of the strategic investment requirements according to 'Manchester Metropolitan University Estate Strategy 2017-2027' - strategic investment in an expanded library and students' commons, which seeks to increase capacity and quality of study and to create an intellectual hub for the University.

6.80. Table 6.13 lists the existing baseline receptors for the Site and surrounding area in a brief tabulated format and identifies the key sensitive townscape and visual receptors considered within this assessment. Fuller justifications and descriptions for each townscape and visual receptor can be found within the technical Appendices 6.1 and 6.2 respectively.

Table 6.13: Existing Baseline Conditions

Description	Value	Susceptibility to Change	Sensitivity
Townscape Receptors			
Townscape Character Area – The Corridor	Medium	Low	Medium
Urban Grain	Medium	Low	Low
Building Heights	Medium	Low	Low
Movement and Linkages	Medium	Low	Low
Environmental Designations and Public Open Space	Medium	Low	Low
Site Character	Low	Low	Low
Visual Receptors			
View 1 – View from corner of Oxford Road / Grosvenor Street junction looking north over All Saints Park. Within setting of Grade II Listed Former Grosvenor Picture Palace and Former Town Hall.	Medium	Medium	Medium
View 2 – View from pedestrian footpath within All Saints Park looking north to Site. Within setting of Grade II listed Osmond, Righton & Grosvenor Buildings.	Medium	High	High
View 3 – View from footway on eastern side of Oxford Road adjacent to bus stops and public entrance plaza to St Peters House and University Green.	Medium	Medium	Medium
View 4 – View from footway on eastern side of Oxford Road looking south - adjacent to Manchester Technology Centre and Circle Square entrances.	Medium	Medium	Medium
View 5 – View from footway on junction of Oxford Road/ Whitworth Street looking south - adjacent to Grade II* Listed Former Refuge Assurance Company Offices & Grade II Listed Palace Theatre.	High	Medium	Medium
View 6 – View from footway adjacent to Cambridge Street & Mancunian Way junction looking east to Site.	Low	Low	Low
View 7 – View from pedestrian walkway / green verge adjacent to Mancroft Walk looking west to Site.	Low	Low	Low

Identification and Evaluation of Likely Significant Effects

Construction Phase

6.81. The likely impacts arising from the construction of the Proposed Development are summarised in Table 6.15, with further detail and justification provided in the relevant technical Appendices 6.1 and 6.2, including supporting Townscape Figures and Verified Photomontages respectively.

6.82. In assessing the likely construction impacts, the following mitigation has been assumed as being 'inherent' and is therefore considered within the pre-mitigation assessment:

Table 6.14: Summary of Embedded Construction Mitigation Measures

Mitigation Measures	Effects
A full traffic management plan will be developed to address; access, egress & drop off, temporary/ permanent alterations to local traffic routes, signage, pedestrian access, parking and bus stops, segregation of plant, materials and pedestrians, loading bays & crane positions. The Contractor is to endeavour to arrange deliveries outside of peak traffic hours. As per University policy, there will be no visitor and key staff parking within the compound area.	Minimise disruption to local road network and reduce transportation distances.
Material storage will be generally contained within the site boundary with access through the site entrance gates for deliveries. The main gates will be manned by qualified banksmen who will co-ordinate traffic, bank deliveries as well as ensure the road and pavement areas are kept clean. When required by the construction activities, appropriate wheel and vehicle wash facilities will be in place to ensure delivery wagons leave the site clean and tidy with regular cleaning of Oxford Road using road sweepers.	Promoting public transport to reduce the vehicular movement associated with the works.
Construction techniques and the associated plant and equipment selected to minimise noise and vibration intrusions on surrounding areas. On Sundays and Bank Holidays no noisy working will generally be planned.	Minimise noise and vibration intrusions on surrounding areas.
Site operating hours will adhere with Manchester City Council's (MCC) 'Environmental Protection Information for Developers'.	Minimise disruption to surrounding areas.
Dust & noise control & the erection of perimeter fencing to a specified standard, will be taken.	To prevent risk to members of the public.
More detailed proposals will be developed once contractors are appointed and prior to commencement on site. This will include preparation of detailed plans to incorporate Construction Management, Construction Phase Health and Safety, Environmental Management as well as Site Waste Management, Logistics and Traffic Management.	The main aim throughout the construction period is to minimise the impact on the surrounding properties, residents, businesses and roadways for the duration of the work.

6.83. Any additional or secondary mitigation deemed necessary to avoid or minimise adverse effects arising from the construction of the Proposed Development are outlined in the 'Mitigation Measures' section. Those measures are taken into account before reporting the residual (i.e. post-mitigation) construction effects of the Proposed Development.

Table 6.15: Likely Construction Effects

Receptor	Sensitivity	Magnitude of change (Neg / Minor / Moderate / Major)	Extent of effect (site / local / regional / national)	Nature of effect (direct / indirect)	Temporal Scale (Short-term / Long-term)	Permanence of Effect (Temporary / Permanent)	Significance
Townscape Receptors							
Townscape Character – The Corridor	Medium	Minor	Local	Direct	Short-term	Temporary	Minor adverse (not significant)
Urban Grain	Low	Minor	Local	Direct	Short-term	Temporary	Minor adverse (not significant)
Building Heights	Low	Minor	Local	Direct	Short-term	Temporary	Minor adverse (not significant)
Movement and Linkages	Low	Minor	Local	Direct	Short-term	Temporary	Minor adverse (not significant)
Environmental Designations and Public Open Space	Low	Minor	Local	Direct	Short-term	Temporary	Minor adverse (not significant)
Site Character	Low	Moderate	Local	Direct	Short-term	Temporary	Minor adverse (not significant)
Visual Receptors							
View 1	Medium	Moderate	Local	Direct	Short-term	Temporary	Moderate adverse (significant)
View 2	High	Moderate	Local	Direct	Short-term	Temporary	Moderate adverse (significant)
View 3	Medium	No change	N/A	N/A	N/A	N/A	No change (not significant)
View 4	Medium	Moderate	Local	Direct	Short-term	Temporary	Moderate adverse (significant)
View 5	Medium	Negligible	Local	Direct	Short-term	Temporary	Negligible adverse (not significant)
View 6	Low	Minor	Local	Direct	Short-term	Temporary	Minor adverse (not significant)
View 7	Low	Minor	Local	Direct	Short-term	Temporary	Minor adverse (not significant)

Operational Phase

6.84. The likely impacts arising from the operational phase of the Proposed Development are summarised in **Table 6.16** below, with further detail and justification provided in the relevant technical **Appendices 6.1** and **6.2**, including supporting Townscape Figures and Verified Photomontages respectively.

6.85. In assessing the likely operational impacts, the following aspects of the scheme design are noted as 'inherent' or 'embedded' mitigation of relevance to this Chapter and is therefore considered within the pre-mitigation assessment. Forms of mitigation embedded within the operational phase are described in detail in the Design

and Access Statement (DAS) that accompanies this application. The Proposed Development has been developed in accordance with good design principles which avoids, reduces or offsets potential effects on the townscape and views. The key principles relevant to the purposes of this report are summarised below.

6.86. These measures are considered as part of the detailed elements of the scheme:

Built Form and Massing

- The library's façade and massing - a 9-storey contemporary form - have been developed to respond to the surrounding context alongside creating a rich and varied internal appearance. The south-facing elevation takes advantage of the tree canopy of All Saints Park, while the north-facing façade opens up views back across the city.
- The placement and orientation of the new library have been carefully developed to reinforce the University's urban design strategy and improve permeability across the campus. This strategy ensures the building serves as both a destination and a connector – welcoming visitors from Oxford Road and All Saints Park.
- The library's footprint has been carefully offset from all surrounding elements - including All Saints Park, Mancunian Way, and existing trees along Oxford Road. These offsets have been deliberately determined to allow for buildability, maintain appropriate clearances, and ensure that future maintenance of both the building and its surroundings can be undertaken safely and effectively.

Materiality and Appearance

- The proposed design for the new Manchester Metropolitan University library will feature a refined and high-quality glazed ceramic façade, chosen for its timeless, neutral palette and ability to subtly reflect the changing light and colours of its surroundings. This material finish will lend the building a dynamic and elegant presence, reinforcing its civic identity.
- The primary façade material is high-quality glazed ceramic cladding, chosen for its durability, longevity, and refined aesthetic. Extensive glazing complements the ceramic finish, allowing strong visual and spatial links between the interior and surrounding public spaces. Coloured aluminium provides accents to the window frames, curtain walling framing, and fins. The colonnade at the main entrance uses these materials to create a presence at a civic scale, and an inviting, accessible threshold from All Saints Park and the wider university campus.
- The colour strategy is informed by the collegiate character of All Saints campus, aiming for a timeless aesthetic. The library is intended to convey civic presence while remaining welcoming and avoiding large expanses of dark or clashing colours that could feel exclusionary. The glazed ceramic and glazing are tonally complementary, providing a coherent visual language across the façade. The palette of the glazed ceramic provides a warm neutral base.

Movement and Linkages

- The placement and orientation of the new library have been carefully developed to improve the permeability and legibility of the campus. By situating the library strategically, the design facilitates the creation of new pedestrian routes that run north through the campus, beneath Mancunian Way, forming critical links that enhance both east-west and north-south connectivity. These routes integrate seamlessly with existing pathways and public spaces, strengthening the cohesion between academic buildings and promoting a more fluid and intuitive circulation throughout the campus.
- The library's main entrance has been deliberately oriented to align with the intersection of this new north-south route and pre-existing pedestrian pathways. This positioning establishes the library as a natural point of convergence, ensuring that it functions not only as a prominent destination in its own right but also as a connective element within the campus fabric. Visitors approaching from Oxford Road or All Saints Park are guided toward the entrance intuitively, while internal campus users experience the library as an integral node in the broader pedestrian network.

Landscape and Public Realm

6.87. The landscape masterplan for the public realm looks to create a series of high-quality connecting and dwell spaces that support the new library and existing University campus. This draws upon the recently installed public realm proposals to All Saints Park and surrounding streets, with the ambition to create a high - quality, holistic campus wide public realm aesthetic. The masterplan can be divided into a series of character areas:

Arrival and Movement Zone:

- Extending the planting along Oxford Road and managing the Oxford Road trees.
- Enhanced arrival at Oxford Road.
- Creation of a primary pedestrian boulevard fronting the library with street trees, lighting and CCTV with generous circulation spaces.
- Associated campus and building signage and wayfinding.
- Enhanced library arrival, feature paving and seating.
- All Saints Park boundary seating.

Learning Zone:

- Multi-stem trees and lush ornamental planting framing intimate learning pockets that include a variety of seating and WiFi.
- Feature seating marks the interface with the main circulation zone.
- Feature screens and hedging introduced to screen views of the car park and service yard from the learning zone.
- Pedestrian movement routes reflect desire lines and enable access for maintenance equipment.

Service Yard:

- Hedging introduced to screen views of the car park from the learning zone and to direct pedestrian movement to the enhanced pedestrian crossing, discouraging movement across the service yard.
- Proposed raised table pedestrian crossing, combined with reduced road width, connecting to existing pedestrian routes to John Dalton Building, northern campus and Oxford Road (via secure line).
- Widened footpath to northern edge of service road and improved accessibility from disabled bays.
- Access control to service area and bin store. Including separate vehicular and pedestrian gates for flexibility of management and control.

6.88. Any additional or secondary mitigation deemed necessary to avoid or minimise adverse effects arising from the operational phase of the Proposed Development are outlined in the 'Mitigation Measures' section. Those measures are taken into account before reporting the residual (i.e. post-mitigation) construction effects of the Proposed Development.

Table 6.16: Likely Operational Effects

Receptor	Sensitivity	Magnitude of change (Neg / Minor / Moderate / Major)	Extent of effect (site / local / regional / national)	Nature of effect (direct / indirect)	Temporal Scale (Short-term / Long-term)	Permanence of Effect (Temporary / Permanent)	Significance
Townscape Receptors							
Townscape Character – The Corridor	Medium	Minor	Local	Direct	Long-term	Permanent	Minor beneficial (not significant)

Receptor	Sensitivity	Magnitude of change (Neg / Minor / Moderate / Major)	Extent of effect (site / local / regional / national)	Nature of effect (direct / indirect)	Temporal Scale (Short-term / Long-term)	Permanence of Effect (Temporary / Permanent)	Significance
Urban Grain	Low	Minor	Local	Direct	Long-term	Permanent	Minor beneficial (not significant)
Building Heights	Low	Minor	Local	Direct	Long-term	Permanent	Minor beneficial (not significant)
Movement and Linkages	Low	Minor	Local	Direct	Long-term	Permanent	Minor beneficial (not significant)
Environmental Designations and Public Open Space	Low	Minor	Local	Direct	Long-term	Permanent	Minor beneficial (not significant)
Site Character	Low	Moderate	Local	Direct	Long-term	Permanent	Minor beneficial (not significant)
Visual Receptors							
View 1	Medium	Moderate	Local	Direct	Long-term	Permanent	Moderate beneficial (significant)
View 2	High	Minor	Local	Direct	Long-term	Permanent	Minor neutral (not significant)
View 3	Medium	No change	N/A	N/A	N/A	N/A	No change (not significant)
View 4	Medium	Moderate	Local	Direct	Long-term	Permanent	Moderate beneficial (significant)
View 5	Medium	Negligible	Local	Direct	Long-term	Permanent	Negligible neutral (not significant)
View 6	Low	Minor	Local	Direct	Long-term	Permanent	Minor beneficial (not significant)
View 7	Low	Minor	Local	Direct	Long-term	Permanent	Minor beneficial (not significant)

Cumulative Effects

6.89. The assessment of the Proposed Development has been supplemented by a cumulative assessment of committed developments in order to understand if any further potential significant environmental effects are likely to arise. Cumulative effects are defined as impacts that result from additional changes to the townscape or visual amenity caused by the Proposed Development in conjunction with other developments (associated with or separate to it), or actions that occurred in the past, present or are likely to occur in the foreseeable future.

6.90. A total of 2 committed developments have been identified as set out below – also illustrated on **Figure 1.9** of **Appendix 6.1**:

- 137 Oxford Road - Erection of single storey roof extension to create Purpose Built Student Accommodation (Use Class Sui Generis) comprising 20no bedspaces, with commercial Class E at

ground floor, together with elevational alterations, and other associated works. Planning approved December 2024, works on-site have not commenced and no conditions have been discharged.

- Cambridge Halls - Demolition of existing halls of residence and erection of two buildings of 30 and 24 storeys above ground, plus basement and rooftop plant levels, comprising: purpose-built student accommodation with internal and external rooftop communal amenity space (Sui Generis); ground floor commercial and community uses (Flexible Use Classes E, F1(a) or F2(b)); hard and soft landscaping; and associated highway works. Planning application submitted June 2025.

6.91. 137 Oxford Road - In relation to townscape receptors, the scheme will slightly increase the existing height datum and townscape character of this section of Oxford Road. However, this change will be too small to alter the assessed overall baseline position for these receptors, and therefore not likely to change any assessment outcomes of selected townscape receptors.

6.92. With regards to visual receptors, it is either not within the view, too distant or completely obscured by existing townscape features to be perceptible in the remaining selected views. As such, there is unlikely to be any cumulative visual effects.

6.93. Cambridge Halls – In relation to townscape receptors, the scheme will increase the existing local height datum in the immediate area of the townscape through the replacement of the existing halls of residence with two buildings of 30 and 24 storeys. This change will not alter the assessed overall baseline position of this receptor for the whole study area, and therefore not likely to change any assessment outcomes.

6.94. With regards to visual receptors, the buildings are not likely to be clearly visible, as they are either not within the view, too distant or completely obscured by existing townscape features to be perceptible in the selected views. As such, there is unlikely to be any cumulative visual effects.

6.95. As a result, there is not predicted to be any potential for cumulative townscape or visual effects in conjunction with the Proposed Development during the construction or operational stages.

Mitigation Measures

6.96. Given the nature of the iterative design process leading to the extent of embedded mitigation into the design, the requirement for supplementary mitigation is limited. The mitigation measures described below are focussed on ensuring that the management and maintenance of the Proposed Development limit any further adverse townscape and visual effects.

Construction Phase

6.97. The implementation of good site management, maintenance and housekeeping would ensure that the temporary deterioration to townscape character and visual amenity during the construction phase would be kept to a practical minimum. Despite these better practice measures, there would still remain inevitable adverse effects during construction works.

Operational Phase

6.98. An operational management strategy will be submitted with the application to provide further mitigation and maintenance once the Site is operational, however would unlikely alter the likely significant effects already assessed during this stage of the development.

Residual Effects

Construction Phase

Table 6.17: Residual Construction Effects

Likely Significant Effect	Receptor	Mitigation Measure	Means of Mitigation Implementation	Post Mitigation Residual Effect – Significance and Duration (Temporary/Permanent)
Townscape Receptors				
Minor adverse (not significant)	Townscape Character – The Corridor	Implementation of good site management, maintenance and housekeeping to ensure that the temporary deterioration to townscape character is kept to a practical minimum.	Construction Management and Phasing Plan	Minor adverse (not significant) / temporary
Minor adverse (not significant)	Urban Grain	As above.	Construction Management and Phasing Plan	Minor adverse (not significant) / temporary
Minor adverse (not significant)	Building Heights	As above.	Construction Management and Phasing Plan	Minor adverse (not significant) / temporary
Minor adverse (not significant)	Movement and Linkages	As above.	Construction Management and Phasing Plan	Minor adverse (not significant) / temporary
Minor adverse (not significant)	Environmental Designations and Public Open Space	As above.	Construction Management and Phasing Plan	Minor adverse (not significant) / temporary
Minor adverse (not significant)	Site Character	Construction techniques to minimise noise and vibration to surrounding areas of public realm. Perimeter fencing protecting surrounding area from changes to site character from construction works.	Construction Management and Phasing Plan	Minor adverse (not significant) / temporary
Visual Receptors				
Moderate adverse (significant)	View 1	Implementation of good site management, maintenance and housekeeping to ensure that the temporary deterioration to visual amenity are kept to a practical minimum.	Construction Management and Phasing Plan	Moderate adverse (significant) / temporary
Moderate adverse (significant)	View 2	As above.	Construction Management and Phasing Plan	Moderate adverse (significant) / temporary
No change	View 3	N/A	N/A	No change
Moderate adverse (significant)	View 4	As above.	Construction Management and Phasing Plan	Moderate adverse (significant) / temporary
Negligible adverse (not significant)	View 5	As above.	Construction Management and Phasing Plan	Negligible adverse (not significant) / temporary

Likely Significant Effect	Receptor	Mitigation Measure	Means of Mitigation Implementation	Post Mitigation Residual Effect – Significance and Duration (Temporary/Permanent)
Minor adverse (not significant)	View 6	As above.	Construction Management and Phasing Plan	Minor adverse (not significant) / temporary
Minor adverse (not significant)	View 7	As above.	Construction Management and Phasing Plan	Minor adverse (not significant) / temporary

Operational Phase

Table 6.18: Residual Operational Effects

Likely Significant Effect	Receptor	Mitigation Measure	Means of Mitigation Implementation	Post Mitigation Residual Effect – Significance and Duration (Temporary/Permanent)
Townscape Receptors				
Minor beneficial (not significant)	Townscape Character – The Corridor	Operational management strategy to ensure ongoing maintenance and management of the Proposed Development and grounds to maintain high-quality.	Operational management strategy	Minor beneficial (not significant) / permanent
Minor beneficial (not significant)	Urban Grain	As above.	Operational management strategy	Minor beneficial (not significant) / permanent
Minor beneficial (not significant)	Building Heights	As above.	Operational management strategy	Minor beneficial (not significant) / permanent
Minor beneficial (not significant)	Movement and Linkages	As above.	Operational management strategy	Minor beneficial (not significant) / permanent
Minor beneficial (not significant)	Environmental Designations and Public Open Space	As above.	Operational management strategy	Minor beneficial (not significant) / permanent
Minor beneficial (not significant)	Site Character	As above.	Operational management strategy	Minor beneficial (not significant) / permanent
Visual Receptors				
Moderate beneficial (significant)	View 1	Operational management strategy to ensure ongoing maintenance and management of the Proposed Development and grounds to maintain character and amenity of views.	Operational management strategy	Moderate beneficial (significant) / permanent
Minor neutral (not significant)	View 2	As above.	Operational management strategy	Minor neutral (not significant) / permanent
No change	View 3	N/A	N/A	No change
Moderate beneficial (significant)	View 4	As above.	Operational management strategy	Moderate beneficial (significant) / permanent
Negligible neutral (not significant)	View 5	As above.	Operational management strategy	Negligible neutral (not significant) / permanent
Minor beneficial (not significant)	View 6	As above.	Operational management strategy	Minor beneficial (not significant) / permanent
Minor beneficial (not significant)	View 7	As above.	Operational management strategy	Minor beneficial (not significant) / permanent

Summary

6.99. The results of the townscape and visual assessment are set out in full within **Appendices 6.1** and **6.2** respectively.

6.100. A summary of all residual effects is set out in **Tables 6.17** and **6.18** above, with effects assessed as 'significant' listed in red. For the purpose of the Townscape and Visual Impact Assessment, effects of **moderate to major significance** are considered to be 'significant' in the meaning of EIA Regulations (2017). This acknowledges the degree of change that it is taking place within the wider townscape, and the Proposed Development's overall fit within delivering the aspirations of the City through adopted policy for growth, and enhancement of the Oxford Road Corridor and the Universities through its Estate Strategy.

6.101. A total of 6 townscape receptors and 7 visual receptors were identified and considered as part of this assessment.

Townscape effects

6.102. There were no 'significant' townscape effects identified during the construction or operational phases. This reflects the relatively low sensitivity of townscape receptors in the study area and level of changes occurring within the Site. During construction all effects are predicted to be adverse due to the demolition of the existing building and the impact of construction works on the local area, but no greater than minor level of effects, which are all temporary and limited to the short-term period.

6.103. During operation, all townscape effects are assessed as experiencing beneficial effects, as the Proposed Development will transform the Site to a high-quality new university faculty building and local level landmark with an enhanced public realm to its edges. However, none of these effects are likely to be considered 'significant'.

Visual effects

6.104. Three 'significant' moderately adverse visual effects are assessed during the construction period (Views 1, 2 & 4). This reflects the sensitivities of the aforementioned views and likely impact of construction works on their respective characters and amenities, but only temporary and limited to the short-term period. The remaining views are assessed as minor adverse or neutral, and therefore not considered to be 'significant'.

6.105. During the operational stage no views were assessed as having adverse effects. Two views (Views 1 & 4) were assessed as having 'significant' moderately beneficial effects, as the Proposed Development will likely notably enhance the character and amenity of these views. The remaining views are assessed as minor beneficial or neutral, and therefore not considered to be 'significant'.

6.106. It is noted that due to the timing of the application and assessment, views and baseline photography was undertaken during early October 2025 where trees were in still in full leaf and offering the maximum potential screening to both construction activities and the proposed new building. This does not represent the 'worse case' scenario that is required within the GLVIA guidelines. Where this had the potential to affect the assessed effects and significance it was noted in the assessment tables. However, it was not considered that the reduction in the canopy would have caused the assessed significance of the views to have changed for any of the receptors.

Monitoring

6.107. N/A.

Reference List

6.108. This ES Chapter has been prepared by reference to the following:

- Department for Communities and Local Government (2024), National Planning Policy Framework, London, DCLG.
- Institute of Sustainability and Environmental Professionals (ISEP), 2015. ISEP Environmental Impact Assessment Guide to Shaping Quality Development.
- Landscape Institute, IEMA, 2013. Guidelines for Landscape & Visual Impact Assessment, 3rd Edition, Oxon, Routledge.
- Landscape Institute, 2019. Visual Representation of Development Proposals, Landscape Institute Technical Guidance Note 06/11, London, Landscape Institute.
- Environmental Impact Assessment EU Directive and UK Regulations, (85/337/EEC).
- Town and Country Planning Act (Environmental Impact Assessment).

7. Wind Microclimate

Introduction

7.1. This Chapter of the ES has been prepared by Buro Happold and assesses the likely wind microclimate impacts of the proposals upon the Site and surrounding area. This Chapter also describes the methods used to assess these impacts, the existing baseline conditions, the proposed mitigation measures required to prevent, reduce, or offset any significant negative impacts and the likely residual impacts after these methods have been adopted.

7.2. This Chapter is accompanied by the following appendices: Appendix 7.1 Wind Microclimate Figures.

7.3. The authors of this Chapter are:

	Lead Author	Reviewer
Name	Aviva Opsomer	Bernardo Vazquez
Company	Buro Happold	Buro Happold
Qualifications/Accreditations relevant to technical area inlc. IEMA	MRes Fluid Dynamics (Environmental & Applied Fluid Dynamics); MSc Building Technology; BSc Civil Engineering	PhD Mechanical Engineering, MSc Solar Energy, BSc Chemical Engineering
Years technical experience (in technical area)	5	20+
Number of EIA's delivered to date	~10	20+

Assumptions and Limitations

7.4. Future surrounding developments (cumulative schemes) are based on publicly available information for current planning permissions/commitments (refer to ES Volume 1, Chapter 2: EIA Methodology). If the proposals for these developments are amended in the future, the effects could alter for 'Scenario 5: Cumulative scenario'. However, any future changes to the committed developments would be subject to an updated wind assessment for each relevant scheme as part of any planning application for revised proposals, if considered necessary by the Local Planning Authority.

Relevant Legislation, Policy and Guidance

Legislation

7.5. N/A

Policy

National

7.6. There are no national codes of practice or legislative policies relating to the assessment of environmental wind flows in the built environment.

7.7. The UK wide National Planning Policy Framework (NPPF) came into force in March 2012, and was updated in December 2025. There are no national planning policies directly relating to wind microclimate issues; however, the benefits of a high quality built environment are emphasised in the NPPF. An example of this is presented in paragraph 135: "…using the arrangement of streets, spaces, building types and materials to create attractive, welcoming and distinctive places to live, work and visit…".

7.8. Moreover, the National Design Guide (2021) states in Paragraph 71 that: "Proposals for tall buildings (and other buildings with a significantly larger scale or bulk than their surroundings) require special consideration. This includes their […] environmental impacts, such as […] wind. These need to be resolved satisfactorily."

7.9. The impact of environmental wind on pedestrian spaces and the subsequent suitability of these spaces for planned usage is described by the Lawson Comfort Criteria (LCC), which are recognised by Local Planning Authorities (LPAs) as a suitable benchmark for wind assessments. LCC has been applied in the wind assessment of the Proposed Development.

Regional

7.10. There is no specific national or regional legislation or policy guidance for the assessment of the local wind microclimate impact that a new development has on the comfort and safety of users.

Local

7.11. Several local authorities provide planning guidance for tall buildings, recommending that a microclimate assessment be performed. The definition of tall buildings within these documents varies, but typically includes any buildings which are significantly higher than their neighbours. Reference on how the Manchester City Council (MCC) aims to avoid potential adverse effects of tall buildings can be found in Manchester's Local Development Framework, Core Strategy Development Plan Document, July 2012.

7.12. Policy EN2 states that "Tall buildings are defined as buildings which are substantially taller than their neighbourhoods and/or which significantly change the skyline", and "By their very size tall buildings can have a significant impact on the local environment and its micro-climate. It is therefore expected that this impact be modelled and that submissions for tall buildings also include appropriate measures to create an attractive, pedestrian friendly local environment".

7.13. Furthermore, Objective 6 (Environment) states in paragraph 12.6 that development in Manchester will be expected to follow seven design principles, including "Quality of the public realm: a place with attractive, and successful outdoor areas".

7.14. This report considers the above as part of the assessments carried out, by considering the massing impact on the local conditions that may be experienced by users of the external areas around and within the site. Due to its size, location and nearby building heights the Proposed Development is not considered a tall building. However, the SRF masterplan includes tall buildings. The wind microclimate assessment has been undertaken to ensure that all areas of the proposed public realm are comfortable and safe for pedestrians to use, particularly given the Proposed Development's proximity to several tall buildings outside the red line.

7.15. Local Development Plan:

- Manchester Core Strategy (2012);
- Manchester Proposals Map (2012);
- Places for Everyone (PfE) Joint Development Plan (2024); and
- Saved Policies of the Manchester Unitary Development Plan (2005).

7.16. Other material considerations:

- National Planning Policy Framework ('NPPF') (2023);
- Mayfield Strategic Regeneration Framework (2018);
- Guide to Development in Manchester SPD (2007);
- Manchester Residential Quality Guide (2017);
- Manchester Housing Strategy 2022 – 2023 (2022);

- Our Manchester Strategy – Forward to 2025 (2022);
- Manchester Climate Change Framework 2020-25;
- Manchester City Centre Transport Strategy 2040 (2021);
- Biodiversity Strategy and Action Plan 2022-2030 – the City of Manchester's Nature Recovery; and
- Great Outdoors: A Green and Blue Infrastructure Strategy for Manchester 2015-2025.

Guidance

7.17. N/A

Assessment Methodology and Significance Criteria

Assessment Methodology

7.18. This assessment includes a direct comparison between the baseline conditions and those created by the Proposed Development for 12 wind directions based on the wind statistical data translated to the Site. This Chapter describes the quantitative assessment of the likely wind environment, and the qualitative judgements that are made in order to identify areas of potential concern. This analysis includes an assessment of the relative forms, layouts and massing of the existing Site and the Development, as well as surrounding landscaping and topography.

7.19. Impacts of the likely wind conditions are judged based on the Computational Fluid Dynamics (CFD) modelling results and Buro Happold's extensive experience of wind assessments, full-scale testing, CFD and wind tunnel modelling of similar developments.

7.20. Wind microclimate comfort strongly depends on an individual's activity and so has, therefore, been defined separately for each activity in terms of an average (mean) wind speed exceeded for a certain percentage of the year. The pedestrian comfort criteria have been developed around the Beaufort scale (Lawson's Comfort Criteria (LCC), Lawson, 2001), extending its applicability to environments around buildings.

7.21. The assessment is supported by CFD modelling of the full range of wind speeds and directions for the three configurations (which have been agreed with the Local Planning Authority through the EIA Scoping Process), as listed below.

7.22. The temporary wind effects during construction have been assessed qualitatively.

Scenarios Tested

7.23. Three configurations have been tested within this assessment. These scenarios are as follows:

- Configuration 1: Existing Site in the context of existing surroundings (baseline scenario);
- Configuration 2 ('Scenario 3' as per table 2.1): Proposed Development in the context of existing surroundings (proposed scenario);
- Configuration 3 ('Scenario 4' as per table 2.1): Proposed Development in the context of future surroundings (cumulative scenario).

7.24. The existing surrounding landscaping is included, but the proposed landscaping strategy for the Site is not included within the CFD simulations, therefore these results represent a conservative estimate of the wind conditions on/near the Site. Nearby cumulative developments that fall within the modelled CFD boundary have been incorporated as part of the future surroundings (for Configuration 3) based on publicly available information on the Manchester City Council planning applications portal.

The Study Area

7.25. For the EIA Study Area Boundary of the cases listed under 7.23, please refer to ES Volume 1, Chapter 4: Site Surroundings and Description of Proposals.

7.26. For the extent and details of the CFD model, please refer to the Computational Fluid Dynamics (CFD) Modelling Assumptions section.

Surveys and Data Sources

7.27. N/A

Computational Fluid Dynamics Modelling Assumptions

Approach

7.28. The physical layout of the Site was analysed using a 3D CFD model. CFD modelling involves the solution of the fundamental equations of fluid motion using numerical techniques. The region of interest is divided into numerous small volumes, or cells, and equations are solved within each cell. Values of the variables that are solved in the model are determined in each cell and so a comprehensive assessment of velocity variation within the calculation domain is obtained. To improve the resolution of the results, the computational cell size has been reduced in the areas of most interest. This ensures that large gradients of velocity at street level are modelled accurately.

Model Extents and Detail

7.29. For buildings outside the development boundary, a 3D context model was developed based on footprints and building heights obtained from aerial survey data. The proposed buildings and surroundings have been modelled according to the information provided by the Design Team. These buildings proposed as part of the Development have been merged with the context information and simplified for CFD modelling purposes. The surrounding topography (along with other urban infrastructure elements such as nearby bridges and railway platforms) has been included explicitly in the CFD geometry model to account for any significant wind effects.

7.30. Surrounding buildings and terrain were included in the model up to a radius of 400m from the centre of the Site. A total simulation domain of radius 600m was modelled. This distance is appropriate as it explicitly contains all buildings and structures surrounding the Development that are likely to affect the wind flows around it.

7.31. The typical edge length of the computational cells in this domain is approximately 1 to 3m, with greater cell sizes at points further from the buildings proposed within the Development. A refined layer of cells exists adjacent to the ground, to allow for an accurate prediction of pedestrian level wind speeds. The total number of computational cells is approximately 8 million for this study. Roughness has been applied in the outer region beyond the modelled buildings, to account for the presence of buildings and terrain features.

Atmospheric Boundary Layer

7.32. The upwind boundaries of the CFD model were prescribed with an atmospheric velocity and turbulence profile corresponding to natural winds. The atmospheric velocity profile was modelled using a log-law, based on communications with ANSYS (i.e. the developers of the CFX CFD software used).

7.33. The downwind and upper boundaries were represented as pressure opening boundaries. These are representative of the atmosphere surrounding the Development. They allow air to be entrained into the model domain or air to flow out of the domain.

7.34. For each wind direction, a single, steady-state RANS (Reynolds Averaged Navier-Stokes) calculation was undertaken using the commercial ANSYS CFX software. Turbulence was modelled using an SST model, with a production limiter used to ensure realistic flow predictions close to stagnation points. This method allows for the assessment of mean wind speeds for the Development.

Wind Data Analysis

7.35. For analysis of wind behaviour, it is necessary to know the relevant wind data for the Site. Velocity fluctuation and directional variance are hard to measure accurately.

7.36. Both the wind speed frequency and its direction are required for this assessment. This data is commonly presented in the form of wind speed and wind frequency distribution diagrams (wind roses). Data is usually provided for average hourly wind speeds at 10m above ground level. This data is monitored and recorded from meteorological stations across England and reported by the Met Office.

7.37. Good quality, long-term weather data is available for Manchester Airport. The wind data for Manchester Airport was translated to meteorological standard terrain (open country) and then to the proposed site. The method used was the method set out in "The Designer's guide to wind loading of building structures, Part 1" (1985), N.J. Cook. This allows for the sheltering effect of neighbouring terrain but does not allow for channelling of wind, for instance due to rivers and valleys. This effect is not expected to dominate conditions here. The resultant wind rose is included in the figures supporting this report (Figure 7.1 for the annual wind rose, and Figure 7.2 for the seasonal wind rose).

Direction Frequency

7.38. Figure 7.1 and Figure 7.2 show the annual and seasonal directional velocity distribution for the Site, once the wind has been translated from Manchester Airport. This shows the direction the wind is blowing from, with long bars representing frequent winds and wider bars representing stronger winds.

7.39. The wind speed for the site can be established for both comfort and safety analysis based on frequency of occurrence, as indicated in Table 7.1.

7.40. As can be seen from Figure 7.1 and Figure 7.2, the prevailing wind across Manchester is from the south and southwest, with some lesser contribution from all other directions. During the spring and winter there are some contributions from the northeast.

7.41. Wind speeds are generally highest in the winter with the seasonal pattern showing a very similar range of wind directions for winter, spring and autumn. Summer has southerly and westerly prevailing winds with the highest speeds from the south and southwest.

Source of Effect

7.42. Identified receptors are potentially vulnerable to the construction and operation of the Proposed Development. A variety of potential wind effects, related to the massing and orientation of the buildings, are relevant to the wind environment and could cause:

- Downwash: along the façade of a building which is considerably taller than the surroundings. High-level wind speeds can be redirected down to the ground with standing vortex and increase pedestrian-level wind speeds.
- Funnelling / channelling: increase in wind speeds in opening through narrow streets or gaps between buildings (canyon width considerably smaller than canyon height).
- Corner acceleration: flow separation with increased speeds and turbulence as wind wraps around sharp corners of buildings and other objects.

Significance Criteria

Lawson Comfort Assessment

7.43. The Lawson assessment has included a direct comparison between the baseline conditions (existing) and the Proposed Development. A quantitative assessment of the likely wind environment has been carried out, with any areas of potential concern identified.

7.44. A comfort map was created to illustrate the assessment results. This map includes a direct correlation between the calculated wind speeds by the CFD simulations and the wind frequency data near the Site for the last 10

years. It provides a complete picture of the likely wind conditions related to certain activities, indicating when suitable conditions can be achieved for carrying out such activities or if distress is likely to be experienced. The maps cover the whole Site on a plane 1.5 m above ground level, where wind speeds are measured.

7.45. The thresholds used to determine the effect for a given activity are specified for Unacceptable, Tolerable, and Acceptable. An example of the thresholds is given in Table 7.1 for "Perceived response to wind for a pedestrian" (as per the Lawson Criteria) which would be Unacceptable. The definitions for these thresholds are summarised below:

- Unacceptable, unpleasant conditions for the given activity, which should not normally be allowed to occur;
- Tolerable, conditions that would be described as 'windy' but which would be tolerated for the given activity; and
- Acceptable, conditions that will elicit no adverse comment about wind conditions.

7.46. It is considered that effects that breach the "Unacceptable" threshold could be significant and it is these effects that are considered further within this assessment, in terms of the activity occurring in the area identified, and requirement for mitigation. The Lawson criteria (Lawson 2001) are used to assess the wind speeds for different activities. The criteria that have been used to assess the unacceptable threshold for different activities as well as the distress criteria are listed in Table 7.1.

Table 7.1: Lawson Comfort Criteria thresholds for unacceptable levels of wind speed

Lawson Comfort Criteria Classification	Use of Space	Maximum acceptable combination of wind speed and occurrence		
		Beaufort Scale	(m/s)	Allowable occurrence
Safety distress)	General public	B7	15	0.025%
Uncomfortable	General public	B6	14.1	0.01%
10	Pedestrian business walking	B5	10.95	6%
9	Pedestrian walking around Buildings	B5	10.95	2%
8, 7	Pedestrian walkthrough	B4	8.25	4%
6	Entrances/standing	B3	5.6	6%
5	Sitting	B3	5.6	3%

7.47. Uncomfortable conditions are experienced at wind speeds above Beaufort B6, as shown in Table 7.2. Additional mitigation for these areas will be of benefit and will improve comfort conditions. Wind speeds above Beaufort B7 indicate that conditions are not suitable for pedestrian activities to be carried out safely, and therefore mitigation will be required in these cases in order to bring conditions to within safe limits.

Table 7.2: The Beaufort scale for wind on land

Beaufort Force	Hourly-average wind speed (m/s)	Description of wind	Noticeable wind effect
B0	< 0.45	Calm	Smoke rises vertically
B1	0.45 - 1.55	Light air	Direction shown by smoke drift but not by vanes
B2	1.55 - 3.35	Gentle breeze	Wind felt on face; leaves rustle; wind vane moves
B3	3.35 - 5.60	Light breeze	Leaves & twigs in motion; wind extends a flag
B4	5.60 - 8.25	Moderate breeze	Raises dust and loose paper; small branches move
B5	8.25 – 10.95	Fresh breeze	Small trees, in leaf, sway
B6	10.95 - 14.10	Strong breeze	Large branches begin to move; telephone wires whistle
B7	14.10 - 17.20	Near gale	Whole trees in motion
B8	17.20 - 20.80	Gale	Twigs break off; personal progress impeded
B9	20.80 - 24.35	Strong gale	Slight structural damage; chimney pots removed
B10	24.35 - 28.40	Storm	Trees uprooted; considerable structural damage
B11	28.40 - 32.40	Violent storm	Damage is widespread; unusual in the U.K.
B12	> 32.40	Hurricane	Countryside is devastated; only occurs in tropical countries

Receptor Sensitivity

7.48. Sensitive receptors in respect of wind microclimate are the pedestrians using the site and the occupants of the Proposed Development and surrounding buildings. Their sensitivity and the magnitude of any change will determine the significance of impact. Sensitivity to wind is dependent upon the activity undertaken, in line with the LCC, as presented in Table 7.3.

Table 7.3: Urban pedestrian activities, in order of increasing sensitivity

Receptor Sensitivity	Activity
Negligible	Areas with non-pedestrian activities
Low	Walking, pedestrian thoroughfares
Moderate	Standing locations
High	Sitting, entrances

Magnitude of Change / Impact

7.49. The assessment of significance refers to the LCC as set out in Table 7.1 to determine the significance of the effect of the proposed development with respect to the wind environment; comparison can be made with the conditions on the existing site. However, because the pedestrian use of a site can change markedly pre and post-development, it is considered that assessment based upon the suitability of the site for the desired pedestrian use is the most informative and relevant approach. The nature of an effect can either be beneficial, adverse or neutral as follows:

- Beneficial – The measured criteria are less windy than the baseline or desired conditions;
- Adverse – The measured conditions are windier than the baseline or desired conditions for the intended use of the site; or
- Neutral / no change – The measured conditions are equivalent to the baseline or desired conditions for the intended use of the site.

7.50. The nature of an impact can also be described in terms of its timescale; short-term, long-term or permanent. Where impacts are beneficial or adverse, their significance can be assessed as described in Table 7.4.

Table 7.4: Criteria for determining magnitude of change / impact

Magnitude	Criteria
Large	A three-category difference between the proposed activity and predicted LCC, or failure to meet the distress criterion (see in **Error! Reference source not found.**).
Medium	A two-category difference between the proposed activity and predicted LCC.
Small	A one-category difference between the proposed activity and predicted LCC.
Negligible	No change in category between the proposed activity and predicted LCC.

7.51. Comparisons can also be made to the existing wind conditions on-site, where appropriate, using the scale of impact magnitude described above, i.e. if it is windier with the proposed development than the baseline, then this represents an adverse impact.

Effect Significance

7.52. The significance of a potential effect is derived by considering both the sensitivity of the feature and the magnitude of change, as demonstrated in Table 7.5.

7.53. The receptor sensitivity can influence the evaluation of the effect significance when combined to the magnitude of impact. i.e. An entrance showing suitable conditions for pedestrian walking, as a small adverse effect can be considered to have a moderate/minor adverse significance, due the high receptor sensitivity.

Table 7.5: Matrix for determining effect significance

		Magnitude of change / impact			
		Large	Medium	Small	Negligible
Receptor sensitivity	High	Major Adverse/Beneficial	Major Adverse/Beneficial	Minor/Moderate Adverse/Beneficial	Negligible
	Moderate	Major Adverse/Beneficial	Moderate Adverse/Beneficial	Minor Adverse/Beneficial	Negligible
	Low	Moderate/Minor Adverse/Beneficial	Minor Adverse/Beneficial	Minor Adverse/Beneficial	Negligible
	Negligible	Negligible	Negligible	Negligible	Negligible

Baseline Conditions

7.54. A quantitative assessment of the likely wind environment has been performed via CFD simulations, based on the existing site and existing surrounding context, including the existing landscape elements to determine baseline conditions at the Site.

7.55. This section studies the comfort and safety of pedestrians in 'Scenario 1: Baseline (existing Site) in existing surroundings', as shown in Figure 7.3.

7.56. The wind conditions have been analysed for the whole year, as well as for the summer and the winter season. These composite wind comfort maps are presented in Figure 7.4.

7.57. Although the existing All Saints Library Building is currently vacant, therefore with limited pedestrian activities (assuming mainly walking) taking place around the building in this Baseline scenario, the Site's overall environment shows comfortable wind conditions supporting year-round sitting. The footpaths and bus stops along the eastern (Oxford Road), southern (adjacent to All Saints Park) and northern (Mancunian Way) edge of the Site boundary show suitable conditions below (more comfortable than) the intended use (walking and standing).

7.58. The annual composite safety map is shown in Figure 7.5. No existing safety exceedance locations have been identified within the boundary of the Site in the Baseline scenario. One small existing off-site safety exceedance is present at the northwest corner of the Faculty of Business and Law to the west of the Site.

7.59. The All Saints Park to the south of the Site is identified as an off-site receptor. The wind conditions at this receptor were found to be in the suitable range for the intended use. Furthermore, the two bus stops along Oxford Road adjacent to the park, which are also off-site receptors, show conditions below (more comfortable than) the intended use (standing).

Identification and Evaluation of Likely Significant Effects

Construction Phase

7.60. The likely significant effects during construction have been assessed qualitatively on the basis of the professional judgement of the experienced wind engineer in Buro Happold, taking into account the baseline wind conditions and having regard to the outcomes of the CFD analysis of the completed Development. This approach is taken assuming that the construction activities are less sensitive to wind conditions (due to site access being restricted to site workers) than when the Development is completed and occupied (when there will be full public access, including to sensitive areas such as entrances and amenity space, for example).

7.61. Construction is assumed to start following demolition of the current building. Overall, the wind environment during the construction of the Development is likely to be variable as the built form is constructed and, as such, all effects during construction would be temporary. The provision of construction hoardings will likely cause negligible to small beneficial changes to wind conditions within the construction site and in proximity to any hoardings, resulting in a negligible effect.

7.62. When the construction works are completed, the final conditions described in the 'Operational Phase' sub-sections of this Chapter will materialise.

Table 7.6: Summary of effects during construction

Receptor	Sensitivity	Description of effect	Magnitude of change/impact	Effect significance
Construction site / empty site	Low	Potential temporary, variable, change of wind environment during construction. Negligible to small beneficial changes expected due to construction hoardings.	Negligible	Negligible

Operational Phase

7.63. The 3D model of the geometry used in the CFD simulations for this scenario is shown in Figure 7.6. The winter and summer composite comfort maps for this scenario are given in Figure 7.9.

7.64. Detail of the intended uses of the Site is required in order to assess the effects of the wind environment on pedestrian comfort. For neighbouring buildings and open spaces, the likely pedestrian activity will be business walking to access the surrounding buildings and car parks. For the Proposed Development, information regarding the intended usage of different areas and indicative building plots is taken from the design information provided by the design team. This includes seating areas, building entrances, bicycle parking locations, pedestrian thoroughfares (including the New Route between the Proposed Development and the retained Library refurbishment) and additional areas where outdoor activities are likely to take place. The pedestrian movement diagram is shown in Figure 7.7 and the ground-level pedestrian activities identified for the Proposed Development (at full completion) are indicated in Figure 7.8.

7.65. The seating areas on the Site are intended for occasional sitting. These will be more frequently used during summer.

7.66. All seating areas, both those to the south and west of the building as well as those underneath the entrance cut-out (soffit), show suitable conditions for their intended use.

7.67. All entrances (main library entrance as well as the stairwell doors on the east and west, and the service doors on the north side respectively) show wind conditions up to one category better than their intended activity (standing). The cycle parking to the southwest of the building also shows wind conditions up to one category better than the proposed standing use.

7.68. The pedestrian thoroughfares around the Proposed Development show similar summer conditions as compared to the Baseline scenario. The winter conditions are slightly windier near the southeast corner of the building, but these are still suitable for the intended use. Besides this corner, the conditions along the pedestrian thoroughfares are up to three categories better than the intended use, i.e. moderate/minor beneficial.

7.69. The annual composite safety map for Configuration 2 is shown in Figure 7.10.

7.70. No safety exceedance locations have been found within the Site boundary. The existing off-site safety exceedance at the northwest corner of the Faculty of Business and Law, as identified in the Baseline scenario, is present in the Proposed configuration as well.

7.71. The All Saints Park to the south of the Site is identified as an off-site receptor. No change in the wind conditions is seen at this location. This also holds for the two bus stops along Oxford Road. These remain up to one category better than the intended use (standing), i.e. negligible to minor beneficial.

Table 7.7: Summary of effects during operation

Receptor	Sensitivity	Description of effect	Magnitude of change/impact	Effect significance
Seating areas under entrance soffit	High	Wind conditions suitable for intended use (sitting).	N/A	N/A
Other seating areas	High	Similar wind conditions as in Baseline; conditions suitable for intended use (sitting).	Negligible	Negligible
Library main entrance	High	Similar wind conditions as in Baseline; up to one category better than intended use (standing).	Negligible – Small beneficial	Negligible – Minor/Moderate beneficial
Other entrances (stairwell and service doors)	High	Similar wind conditions as in Baseline; up to one category better than intended use (standing).	Negligible – Small beneficial	Negligible – Minor/Moderate beneficial
Cycle parking	Moderate	Similar wind conditions as in Baseline; up to one category better than intended use (standing).	Negligible – Small beneficial	Negligible – Minor beneficial
Previously existing off-site safety exceedance area in Baseline (Faculty of Business and Law northwest corner)	Low	Same off-site safety exceedance in Proposed as also present in Baseline condition. Therefore considered as negligible in the assessment of this planning application.	Large (safety exceedance)	Negligible

Receptor	Sensitivity	Description of effect	Magnitude of change/impact	Effect significance
All Saints Park (off-site receptor)	Low	Similar wind conditions as in Baseline; up to two categories better than intended use (pedestrian walkthrough).	Negligible – Medium beneficial	Negligible – Minor beneficial
Bus stops Oxford Rd (off-site receptor)	Moderate	Similar wind conditions as in Baseline; up to one category better than intended use (standing).	Negligible – Small beneficial	Negligible – Minor beneficial

Cumulative Effects

7.72. In this section, the effects of 'Configuration 3: Proposed Development in the context of future surroundings (cumulative scenario)' in comparison to scenario 2 (Proposed Development in the context of existing surroundings) are summarized.

7.73. The following cumulative schemes have been included in the wind assessment of the Proposed Development in the cumulative surroundings (Configuration 3). Note that this scenario also includes the demolition of the existing library building.

- 137 Oxford Road (Planning Ref. 140735/FO/2024); and
- Cambridge Halls (Planning Ref. 142888/FO/2025).

7.74. The 3D model of the geometry used in the CFD simulations for this scenario is shown in Figure 7.11.

Construction

7.75. Similar to the qualitative assessment of the construction phase related to Scenario 2, the effects during construction will be temporary and the final conditions upon completion will be as per the following 'Operation' sub-section of this Cumulative Scenario.

Operation

7.76. The winter and summer composite comfort maps for this scenario are given in Figure 7.12.

7.77. The impact of the cumulative developments, in particular of the Cambridge Halls scheme which presents a significant increase in height (up to 24 and 30 storeys) compared to the existing halls of residence, on the wind conditions in the area is mostly evident around the adjacent Faculty of Business and Law to the west of the Site. The zone of slightly windier 'standing' to 'pedestrian walking' conditions at the southeast corner of the Proposed Development in the winter season has increased in extent compared to the scenario with the existing surroundings, but these conditions are still in the suitable range for the pedestrian activities (walking) within this zone.

7.78. The seating areas on the Site are intended for occasional sitting. These will be more frequently used during summer.

7.79. All the seating areas on the Site show similar wind conditions as the Proposed scenario, which are suitable for the intended sitting use in summer.

7.80. The wind conditions at the main library entrance and all other entrances in the Cumulative Scenario are similar to those of the Proposed Scenario, up to one category better than the intended activity (standing). Similarly, no change is seen at the cycle stand to the south of the Proposed Development.

7.81. The wind conditions along the pedestrian thoroughfares around the Proposed Development show similar summer conditions as the Proposed scenario in the existing context. The winter comfort map shows slightly windier conditions around the southeast corner of the Proposed Development as a result of the cumulative impact, but these are still within a suitable range for walking. Besides this corner, the conditions along the pedestrian thoroughfares are up to three categories better than the intended use, i.e. moderate/minor beneficial.

7.82. The annual composite safety map for Configuration 3 is shown in Figure 7.13.

7.83. The cumulative composite safety map is similar to that of the Proposed scenario, with no distress locations within the Site boundary and one off-site safety exceedance occurring at the northwest corner of the Faculty of Business and Law, as also present in the Baseline and Proposed configurations.

7.84. The wind conditions at the All Saints Park and bus stop off-site receptors remain comfortable for sitting, therefore up to two and one category better than the intended use, respectively.

Table 7.8: Summary of cumulative effects

Receptor	Cumulative effect	Significance of cumulative effect
Seating areas under entrance soffit	Similar wind conditions; suitable for intended use (sitting).	Negligible
Other seating areas	Similar wind conditions; suitable for intended use (sitting).	Negligible
Library main entrance	Similar wind conditions; up to one category better than intended use (standing).	Negligible
Other entrances (stairwell and service doors)	Similar wind conditions; up to one category better than intended use (standing).	Negligible
Cycle parking	Similar wind conditions; up to one category better than intended use (standing).	Negligible
Previously existing off-site safety exceedance area in Baseline (Faculty of Business and Law northwest corner)	Safety exceedance from Baseline condition; also present in Proposed and Cumulative scenario. Therefore considered as negligible in the assessment of this planning application.	Negligible
All Saints Park (off-site receptor)	Similar wind conditions; up to two categories better than intended use (standing).	Negligible
Bus stops Oxford Rd (off-site receptor)	Similar wind conditions; up to one category better than intended use (standing).	Negligible

Mitigation Measures

7.85. The results presented in this assessment are considered conservative as the impact of the proposed landscape strategy for the Site has not been incorporated in the CFD model. The assessment shows that the expected wind conditions on and in the vicinity of the Site are suitable for the planned pedestrian uses. Strictly speaking, no mitigation is thus required from a wind comfort/safety perspective. The proposed landscape strategy is expected to lead to further improvement (localised reduction in wind speed) in certain areas.

Residual Effects

7.86. No mitigation is required.

Monitoring

7.87. N/A

Reference List

7.88. Lawson, T.V. (2001), Building Aerodynamics, Imperial College Press (125-137).

8. Climate Change

Introduction

8.1. This Chapter of the ES has been prepared by Buro Happold and assesses the likely effects of the Proposed Development with respect to climate change. This Chapter also describes the methods used to assess these impacts, the existing baseline conditions, the proposed mitigation measures required to prevent, reduce or offset any significant negative effects and the likely residual effects after these methods have been adopted.

8.2. Climate change resilience has been assessed in the form of a Climate Change Risk Assessment (CCRA), which is reported in full in Appendix 8.1. The results of the assessment are summarised in Part 1 of this chapter. The assessment of the likely effects of the Proposed Development on greenhouse gas emissions has been reported in Part 2 of this chapter.

8.3. This Chapter is accompanied by four technical appendices:

- Appendix 8.1: Climate Change Resilience Risk Assessment;
- Appendix 8.2: Greenhouse Gas Calculation Inputs;
- Appendix 8.3: Scope 3 Emissions Considerations;
- Appendix 8.4: Legislation, Policy and Guidance; and
- Appendix 8.5: Supporting Documents.

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Qualifications/Accreditations relevant to technical area inlc. IEMA	BSc Geography	BSc Environmental Geoscience MSc Water Resources Management Practitioner IEMA Membership
Years technical experience (in technical area)	EIA (AQ and Climate): 8 years	EIA practitioner: 14 years Climate Change assessments in EIA: 7 years
Number of EIA's delivered to date	Climate Change assessments in EIA: 5	Climate Change assessments in EIA: 20+

Assumptions and Limitations

8.4. In undertaking this assessment, there are a number of assumptions and limitations affecting the outputs. These comprise:

- In line with the principles set out in BS EN 15978, a Reference Study Period (RSP) of 60 years after opening (the fully operational opening year) has been used. The assessment reported in this chapter is also based on various other assumptions, set out in the Methodology section of this chapter;
- It is assumed that embodied carbon from maintenance and replacement (lifecycle stage B1-B5) will occur from 15 years after the beginning of operation, to the end of the lifecycle of the development. This is because replacement and maintenance are not expected to be required in the first 15 years of operation;

- A Whole life carbon assessment (WLCA) has been prepared by Hawkins Brown based on detailed scheme information for operational energy and embodied carbon. These are the results used in the calculation of GHG emissions for the Proposed Development, based on expected floor areas and building uses. Where information has been unavailable, appropriate benchmarks have been utilised. Whilst these benchmarks have given an estimate of the scale of GHG emissions associated with the Proposed Development, they will not be completely accurate due to variations between buildings, including geography, construction processes and construction materials used. However, these are considered the best methods for estimating GHG emissions available to us at the time the chapter was prepared. Additionally, where there is uncertainty, a conservative approach has been applied. The supporting WLCA has been provided within Appendix.8.5 (ES Volume II).
- There is some inherent uncertainty in the Department for Energy Security and Net Zero (DESNZ) emissions factors. The emissions factors are in line with the UKs decarbonisation trajectory towards net zero in 2050, however this is an assumption, and the actual emissions trajectory is unknown.
- The main uncertainty regarding the CCRA relates to the climate change projections that the scheme is assessed against. Climate change projections (e.g., UKCP18) are presented in appendix 8.1 using a set of scenarios that capture the relationships between human choices, emissions, concentrations and temperature change. The UKCP18 climate change projections have been selected, as they are UK specific, and relatively conservative. Some scenarios are consistent with continued dependence on fossil fuels, while others are associated with deliberate actions to reduce GHG emissions. Therefore, these climate change projections contain inherent uncertainty, reflecting the uncertainty associated with quantifying human activities (including technological change) and their influence on climate. There are four Representative Concentration Pathway (RCP) scenarios available in the UKCP18 climate projections: RCP 2.6, RCP 4.5, RCP 6.0 and RCP 8.5. In line with IEMA EIA Guide to Climate Change Resilience and Adaptation, 2020, RCP 8.5 has been used, which represents the most conservative, highest-impact scenario.

Part 1: Climate Change Resilience

8.5. Climate change resilience has been assessed in the form of a Climate Change Risk Assessment (CCRA), which is reported in full in Appendix 8.1. The full risk assessment methodology is set out in the appendix, including the route to establishing the risk rating.

8.6. Climate hazards and hazards exacerbated by climate change of relevance to the proposed development have been identified and the associated risks have been assessed, based on the probability of an event occurring and the consequence, if it did occur. Mitigation measures have been identified for risks where required, and with the appropriate mitigation measures in place, the risk ratings have been reduced. The residual risk ratings are set out in Table 8.1.

Table 8.1 Summary of residual risks ratings based on probability and consequence taking into account mitigation measures

Hazard	Risk rating pre-mitigation	Residual Risk		
		Probability rating (1-5)	Consequence rating (1-7)	Residual risk rating
Rainstorm	5	5	1	5
Heavy snow	4	2	2	4
Fog	5	5	1	5
Hail	5	5	1	5
Severe wind	8	4	1	4

Hazard	Risk rating pre-mitigation	Residual Risk		
		Probability rating (1-5)	Consequence rating (1-7)	Residual risk rating
Extra tropical storm	12	3	3	9
Lightning	6	1	6	6
Extreme winter conditions	12	4	2	8
Cold wave	12	4	2	8
Extreme cold days	12	4	2	8
Heat waves	20	4	3	12
Extreme hot days	16	4	3	12
Drought	16	4	2	8
Wild fire	6	1	6	6
Flash/surface flood	4	1	4	4
River flood	4	1	4	4
Groundwater flood	4	1	4	4
Subsidence	4	1	4	4
Water-borne disease	6	2	3	6
Vector borne disease	3	1	3	3
Air-borne disease	6	2	3	6
Insect infestation	4	2	2	4
Key				
Low risk	Medium Risk	High Risk		

8.8. The assessment has concluded that, with the incorporation of the proposed mitigation, the residual risks related to climate change are in line with typical expectations for urban developments of this nature in the UK. Nevertheless, due to the nature of many hazards exacerbated by climate change, some level of residual risk remains.

Part 2: Greenhouse Gas Emissions

Relevant Legislation, Policy and Guidance

8.9. The following legislation, policy and guidance is of relevance to this assessment. Further information on these documents is provided in Appendices 8.1 and 8.4 (ES Volume II).

Legislation

- Paris Agreement (United Nations Framework Convention on Climate Change, 2015);
- The Special Report on Global Warming of 1.5oC, International Panel on Climate Change (IPPC) 2018;
- The Climate Change Act (2008) & The Climate Change Act 2008 (2050 Target Amendment) Order 2019;
- Planning and Energy Act (2008);
- Carbon Budgets Order (2021); and
- The Seventh Carbon Budget, (Climate Change Committee (CCC) 2025).

Policy

National

- National Planning Policy Framework (NPPF) Ministry of Housing Communities & Local Government (MHCLG (formerly DLUHC), 2024);
- National Planning Practice Guidance (NPPG) (MHCLG (formerly DLUHC), 2025);
- The Building Regulations Part L 2021 Edition;
- The Carbon Plan: Delivering our Low Carbon Future (DESNZ (formerly DECC), 2011);
- British energy security strategy (DESNZ, 2022);
- Net Zero Strategy: Build Back Greener (HM Government, 2021);
- UK Climate Change Risk Assessment (HM Government, 2022); and
- The Third National Adaptation Programme and the Fourth Strategy for Climate Adaptation Reporting (Defra, 2023)

Regional

- Places for Everyone (PfE) Joint Development Plan for Boulton, Bury, Manchester, Oldham, Rochdale, Salford, Tameside, Trafford and Wigan (2024).

Local

- Manchester's Local Development Framework. Core Strategy Development Plan Document (MCC, 2012) (as amended, 2024);
- Guide to Development in Manchester Supplementary Planning Document and Planning Guidance. Adopted April 2007;
- Manchester City Council Climate Change Action Plan 2020 – 2025;
- Manchester Climate Change Framework 2020 – 2025;
- Manchester City Council, Manchester Green and Blue Infrastructure Strategy (Implementation Plan Refresh 2021-2025); and
- Manchester City Council Climate Emergency Declaration (2019).

Guidance

- IEMA EIA Guide to Assessing Greenhouse Gas Emissions and Evaluating their Significance 2nd Edition (Institute of Environmental Management and Assessment (IEMA), 2022) (the 'IEMA GHG Guidance');

- RIBA 2030 Climate Challenge (Royal Institute of British Architects (RIBA), 2021);
- BS EN 15978 Sustainability of Construction Works – Assessment of Environmental Performance and Buildings – Calculation Method (British Standards Institution (BSI), 2011);
- Building Services Research and Information Association (BSRIA) (2024). Rules of Thumb Guidance for Building Services;
- Royal Institution of Chartered Surveyors (RICS) Whole Life Carbon Assessment for the Built Environment 2nd edition (RICS, 2023);
- UK Green Building Council (UKGBC) Embodied Carbon: Developing a Carbon Brief (UKGBC, 2017);
- Waste and Resource Action Programme (WRAP) Cutting Embodied Carbon in Construction Projects (WRAP, 2011a);
- WRAP Procurement Requirements for Carbon Efficiency (WRAP, 2011b);
- Greater London Authority Construction Scope 3 (Embodied) Guidance on Greenhouse Gas Accounting and Reporting (GLA, 2013);
- Mayor of London Whole Life-Cycle Carbon Assessments Guidance (GLA, 2022);
- Low Energy Transformation Initiative (LETI) Embodied Carbon Primer (LETI, 2020);
- LETI Climate Emergency Design Guide (2020):
- ISO 14090:2019 Adaptation to Climate Change – Principles, Requirements and Guidelines (BSI, 2019); and
- C40 Cities Climate Change Risk Assessment Guidance (C40 Cities 2018, Amended 2025).

Assessment Methodology and Significance Criteria

8.10. The metric for assessing the climate change impacts of GHG emissions in this assessment is Global Warming Potential (GWP). This is expressed in units of CO_2 equivalent (CO_2e) over 100 years. This allows for the emissions of the seven key GHGs: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), nitrogen trifluoride (NF_3) and sulphur hexafluoride (SF_6) expressed in terms of their equivalent global warming potential in mass of CO_2e.

8.11. There is currently no standard methodology for quantifying GHG emissions within the EIA process. The IEMA GHG Guidance instead advocates for flexibility and proportionality to suit the specific development being assessed.

8.12. A GHG emissions assessment typically covers the whole life of a development. This can be broken down into 'lifecycle stages' or 'modules' of the Proposed Development, as set out in BS EN 15978 Sustainability of Construction Works - Assessment of Environmental Performance of Buildings - Calculation Method, as shown in Figure 8.1.

8.13. With some minor exceptions, all activities within lifecycle stages A, B and C have been included in this assessment. Any activities that have been excluded are explained and justified in the 'Sources of GHG emissions excluded from the assessment' section, included later in the methodology section of the chapter. The assessment has taken into account the design detail currently available.

8.14. GHG emissions caused by an activity are often categorised into 'scope 1'. 'scope 2' or 'scope 3', following the guidance of the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD) Greenhouse Gas Protocol suite of guidance documents (WRI and WBSCD, 2014).

8.15. The ES chapter does not refer to scope 1, 2 and 3 emissions throughout, instead referring to emissions by lifecycle stage. However, an overview of which scope the assessed emissions fall within is provided below.

8.16. Scope 1 emissions comprise direct emissions from owner or controlled sources. With respect to the proposed development, this may include emissions from vehicles owned by the Applicant or from fuel combustion on site during the construction stage. This would also generally include embodied carbon associated with use, maintenance, repair, refurbishment and replacement in the buildings during the operational stage.

8.17. Scope 2 emissions comprise indirect emissions from energy purchased by the Applicant. With respect to the proposed development, this may include electricity generated offsite, purchased and consumed by the Applicant. For example, electricity for lighting, heating, and cooling in the on-site construction site offices and in the building once complete and operational.

8.18. Scope 3 emissions comprise indirect value chain emissions, resulting from the activities of assets not controlled or owned by the Applicant occurring before or after they have control of an asset. With respect to the proposed development this may include:

- Upstream emissions related to the extraction, manufacture and transport of building materials to the site during construction and construction-related emissions from subcontractors.
- Downstream emissions related to the library use, including vehicle use from visitor travel and waste generated from sold products within the library from a third party. This may also include downstream emissions associated with the demolition and management of waste from the development at the end of its life.

8.19. For the purpose of this assessment, in line with the principles set out in BS EN 15978, a Reference Study Period (RSP) of 60 years after opening (the fully operational opening year) has been used. For the purpose of the assessment, decommissioning has been assumed to take place in the final year of the RSP. However, it should be noted that the Applicant does not necessarily propose to decommission the development at the end of this 60-year period. This is considered a conservative assumption.

Scenarios Tested

8.20. This assessment has considered two scenarios. These are:

- Scenario 1: Existing Baseline (existing EIA Site, as of November 2025); and
- Scenario 3: Existing Baseline + Proposed Development

8.21. The remaining scenarios as detailed within Chapter 1 have not been assessed either because they do not represent a worst case scenario or because they include cumulative schemes. As set out in paragraph 8.64, Cumulative Effects, the atmospheric concentration of GHGs and the resulting effects on climate change are affected by all sources (anything emitting GHG) and sinks (anything absorbing GHG) globally, anthropogenic or otherwise. As GHG emission impacts and resulting effects are global rather than affecting one localised area, the approach to the assessment of cumulative effects for GHGs differs from that of many EIA topics where only projects within a geographically bounded study area would be included.

8.22. As such, as stated in the IEMA Guidance, effects of GHG emissions from specific cumulative schemes should not be individually assessed, as there is no basis for selecting any particular cumulative project for assessment over any other. The Guidance goes on to advise that the contextualisation of GHG emissions should incorporate by its nature the cumulative contributions of other GHG sources which make up that context. An inter-development cumulative effects assessment has therefore not been undertaken on a specific cumulative scheme basis; however, the proposed development's GHG emissions have been considered in the context of both the UK national carbon budgets and the Tyndall Centre recommended energy only carbon budgets for Manchester City. As such, the cumulative contributions of other GHG sources that make up the national and Manchester City contexts have been considered within the assessment.

The Study Area

8.23. GHG emissions impacts and resulting effects are global. As such, the spatial scope of the assessment is global.

8.24. In line with the advice provided in the IEMA GHG Guidance, the Proposed Development's GHG emissions have been considered in the context of both the UK national carbon budgets and Tyndall Centre recommended energy-only carbon budgets for Manchester.

Surveys and Data Sources

8.25. The assessment reported in this chapter is based on scheme information provided in the following documents:

- Energy and Carbon Statement (ECS) (Buro Happold, 2025) (1350B-BHE-XX-XX-RP-YS-200003 - Energy and Carbon Statement);
- Environmental Standard Statement (ESS) (Buro Happold,2025) (1350B-BHE-XX-XX-RP-YS-200002 All Saints Library);
- Transport Statement (Buro Happold, 2025) (1350B-BHE-XX-XX-RP-TP-200020 - Transport Statement); and
- Whole life Carbon Assessment (Hawkins Brown, 2025) (251119_MMU_WLC_St3_P02) (Appendix 8.5, ES Volume II).

Source of Effect

Construction Stage GHG Emissions

8.26. Based on the criteria set out in Figure 8.1, the assessment of the construction stage takes into account the following sources of GHG emissions:

8.27. A1 – A3 Product Stage: GHG emissions associated with the material extraction, transportation and manufacturing of construction products; and

8.28. A4-A5 Construction process stage: GHG emissions associated with product delivery to the site and the installation process.

8.29. A Whole Life-Cycle Carbon Assessment (WLCA) has been prepared by Hawkins Brown, for the Proposed Development. The results from this assessment have been used to determine the GHG emissions relating to the construction stage of the Proposed Development. The WLCA has been appended within Appendix 8.5. Further information on these results and how they have been applied in this assessment is provided in Appendix 8.2 (ES Volume II).

Operational Stage GHG Emissions

8.30. Based on the criteria set out in Figure 8.1, the assessment of the operational stage takes into account the following sources of GHG emissions:

- B1-B5 In-use stage: This stage captures embodied GHG emissions associated with the operation of the built asset over its period of use, from practical completion to end of its service life, including use, maintenance, repair, refurbishment and replacement. The results from The WLCA have been used to determine the GHG emissions relating to the in-use stage of the Proposed Development. The methodology that has been applied is set out in Appendix 8.5;
- B6 Operational energy: GHG emissions associated with the estimated total operational energy. Estimated GHG emissions associated with the estimated total operational energy have been taken from the WLCA. Information on the methodology that has been applied is provided in Appendix 8.5 (ES Volume II).
- B7 Operational water: GHG emissions associated with operation water consumption and foul water. Estimated GHG emissions associated with these sources has been taken from the WLCA. Information on the methodology that has been applied is provided in Appendix 8.5 (ES Volume II); and
- Operational transport emissions, which are not included in Figure 8.1 but have also been included in the assessment due to the substantial role they play in the UK's total GHG emissions. Surface

transport is the largest source of GHG emissions in the UK, accounting for 24% of emissions in 2023, according to the Committee on Climate Change (2025). The GHG emissions associated with vehicles travelling to and from the Proposed Development during the operational stage have been estimated by applying a DESNZ emissions factor for average vehicle use, to trip numbers provided by the project transport consultant, Civic Engineers, and an indicative trip distance figure, estimated by the Department for Transport. These emissions factors include wheel to tank emissions, as well as tail pipe emissions. Additional information on the assumptions that have been made is provided in Appendix 8.2 (ES Volume II).

Decommissioning phase GHG emissions

8.31. The assessment of the decommissioning stage takes into account the following sources of GHG emissions:

- C1-C4 End of Life stage: GHG emissions associated with the demolition and disassembly of the Proposed Development at the end of its life. Estimated GHG emissions associated with these sources have been taken from the WLCA. Information on the methodology that has been applied is provided in Appendix 8.5 (ES Volume II).

Sources of GHG Emissions Excluded from the assessment

8.32. The IEMA guidance states that 'certain life cycle modules (or stages) can be excluded if these exclusions are clearly highlighted and justified by the practitioner using professional judgement and in accordance with the materiality and cut-off guidance.' In line with this guidance, the following sources of GHG emissions have been excluded from the scope of the assessment, as agreed in the Scoping Opinion (October, 2025) (Planning Ref: EIASCO/25/008):

- Operational Waste: The opportunities for design and construction decisions to significantly influence the reduction of GHG emissions associated with operational waste are low, as it is highly dependent on occupant behaviour and waste processing at the city scale by the Local Authority. The emissions associated with operational waste are also not expected to be material in scale, such that they could influence the overall significance of effects, and have therefore been scoped out;
- Carbon sequestration from green infrastructure: GHG emissions associated with carbon sequestration from proposed green infrastructure would be low relative to the total GHG emissions over the life of the Proposed Development. Any new planting would also reduce the overall emissions from the Proposed Development, rather than increase them, and a 10% biodiversity net gain is targeted. On this basis, excluding carbon sequestration from the assessment is considered conservative and robust.; and
- Module D – Beyond Assets Life Cycle Stage: the 'Beyond Asset Life Cycle' stage, encompasses emissions associated with activities beyond the site boundary and life cycle of the Proposed Development. This module relates to the repurposing of discarded building elements or any energy recovered from beyond a project's lifecycle. Reliable information about how the components of the scheme could potentially be repurposed following its demolition at the end of its life is not currently available. Given that Module D lies outside the Proposed Development's lifecycle and only covers GHG emissions that could potentially be avoided as a result of repurposing of discarded materials, it is considered that the proposed assessment of Modules A to C (only) comprises a conservative assessment. On this basis, consideration of Module D has not been included in the scope of the assessment.

Programme Assumptions

8.33. It is anticipated that the construction stage will commence in November 2026 and be completed in June 2030. The operational stage is intended to commence in September 2030. The end of life stage is assumed to start 60 years after the beginning of operation for the Proposed Development and be completed within 1 year, in line with the 60 year RSP.

Consideration of Scope 3 Emissions

8.34. As previously stated, this Climate Change ES chapter has been undertaken in line with the IEMA GHG Guidance and other best practice industry guidance. With some minor exceptions set out in the section above, the assessment has included a consideration of all scope 1, 2 and 3 GHG emissions from all activities within lifecycle stages A, B, and C of relevance to the Proposed Development, as set out in the Whole Life Carbon Assessment for the Built Environment (RICS, 2023) (the "RICS 2023 Guidance") and BS EN 15978 Sustainability of Construction Works - Assessment of Environmental Performance of Buildings - Calculation Method ("BS EN 15978") guidance.

8.35. The Supreme Court judgement on the application of Finch (on behalf of the Weald Action Group) v Surrey County Council and others (judgement given on 20 June 2024) has raised implications for the assessment of scope 3 emissions from development projects in the EIA process, potentially requiring the consideration of additional indirect emissions that do not, to date, require consideration under the relevant industry good practice guidance, including the IEMA GHG Guidance, the RICS 2023 Guidance and BS EN 15978.

8.36. A consideration of the Finch case judgement and the alignment of the assessment of Scope 3 emissions within this assessment with the judgement is provided in Appendix 8.3 (Volume II). The methodology employed in this assessment is considered to align with the Finch case Supreme Court judgement.

Methodology for Determining Impact Magnitude and Sensitivity of Receptors

8.37. The impacts and effects of GHG emissions are global, with the global atmosphere serving as the sensitive receptor. The IEMA GHG Guidance advises that '*the receptor has a high sensitivity, given the severe consequences of global climate change and the cumulative contributions of all GHG emission sources*.' The quantity of GHG emissions produced would inform the impact magnitude. However, in line with the methodology set out in the IEMA GHG Guidance, it is not considered necessary to explicitly determine the sensitivity of the receptor or the magnitude of the impact in order to assess the significance of GHG emissions effects. As such, this ES Chapter makes no further reference to receptor sensitivity or impact magnitude.

8.38. As stated in paragraph 8.39, the assessment of significance for GHG emissions is determined based on whether the project supports or undermines a trajectory towards net zero and is in line with national and local policy requirements. The assessment of effect significance is set out in paragraph 8.73.

Significance Criteria

8.39. Three overarching principles are set out in the IEMA GHG Guidance, which IEMA advise should be considered when looking to establish the effect significance of GHG emissions. These comprise:

- 'The GHG emissions from all projects will contribute to climate change, the largest interrelated cumulative environmental effect;
- The consequences of a changing climate have the potential to lead to significant environmental effects on all topics in the EIA Directive (e.g. human health, biodiversity, water, land use, air quality); and
- GHG emissions have a combined environmental effect that is approaching a scientifically defined environmental limit; as such any GHG emissions or reductions from a project might be considered to be significant.'

8.40. IEMA has further built on these principles in the guidance, as follows:

- 'When evaluating significance, all new GHG emissions contribute to a negative environmental impact; however, some projects will replace existing development or baseline activity that has a higher GHG profile. The significance of a project's emissions should therefore be based on its net impact over its lifetime, which may be positive, negative or negligible;
- Where GHG emissions cannot be avoided, the goal of the EIA process should be to reduce the project's residual emissions at all stages; and

- Where GHG emissions remain significant, but cannot be further reduced, approaches to compensate the project's remaining emissions should be considered.'

8.41. The goal of the Paris Agreement is to limit global temperature rise to well below 2°C, aiming for 1.5°C, compared with pre-industrial levels, in order to stand a greater chance of avoiding severe adverse effects from climate change. The UK has set a legally binding GHG reduction target for 2050 through the Climate Change Act, including interim five-yearly carbon budgets, which define a trajectory towards net zero. The Climate Change Committee (CCC) has confirmed that the 2050 target and interim budgets are compatible with the required magnitude and rate of GHG emissions reductions required in the UK to meet the goals of the Paris Agreement, thereby limiting severe adverse effects.

8.42. To meet the 2050 target and interim budgets, action is required to reduce GHG emissions from all sectors, including urban development projects. As stated in the IEMA GHG Guidance, *'EIA for any proposed project must therefore give proportionate consideration to whether and how that project will contribute to or jeopardise the achievement of these targets…the crux of significance therefore is not whether a project emits GHG emissions, nor even the magnitude of GHG emissions alone, but whether it contributes to reducing GHG emissions relative to a comparable baseline consistent with a trajectory towards net zero by 2050'.*

8.43. Building on this, the IEMA GHG Guidance sets out an approach to the assessment of effect significance that comprises judgements on the Proposed Development's consistency with policy requirements (as these have been implemented to ensure the economy decarbonises in line with the UK's net zero target); and the extent to which the Proposed Development's GHG emissions have been mitigated.

8.44. Table 8.3 sets out the significance of effect criteria provided in the IEMA Guidance. The significance of effect scale is also shown in Figure 8.2 to illustrate how this relates to the 1.5°C compliance trajectory.

Table 8.3 - Criteria for determining significance of effect

Significance of Effect	Criteria for assessing effect significance
Major	The Proposed Development's GHG impacts are not mitigated or are only compliant with do-minimum standards set through regulation, and do not provide further reductions required by existing local and national policy for projects of this type. A project with major adverse effects is locking in emissions and does not make a meaningful contribution to the UK's trajectory towards net zero.
Moderate	The Proposed Development's GHG impacts are partially mitigated and may partially meet the applicable existing and emerging policy requirements but would not fully contribute to decarbonisation in line with local and national policy goals for projects of this type. A project with moderate adverse effects falls short of fully contributing to the UK's trajectory towards net zero.
Minor	The Proposed Development's GHG impacts would be fully consistent with applicable existing and emerging policy requirements and good practice design standards for projects of this type. A project with neutral effects is fully in line with or exceeds measures necessary to achieve the UK's trajectory towards net zero.
Negligible	The Proposed Development's GHG impacts would be reduced through measures that go well beyond existing and emerging policy and design standards for projects of this type, such that radical decarbonisation or net zero is achieved well before 2050. A project with negligible effects provides GHG performance that is well 'ahead of the curve' for the trajectory towards net zero and has minimal residual emissions.
Beneficial	The Proposed Development's net GHG impacts are below zero and it causes a reduction in atmospheric GHG concentration, whether directly or indirectly, compared to the without-project baseline. A

Significance of Effect	Criteria for assessing effect significance
	project with major beneficial effects substantially exceeds net zero requirements with a positive climate impact.

8.45. In line with the IEMA GHG Guidance, major and moderate adverse and beneficial effects are considered significant. Effects can be described as:

- Beneficial or adverse;
- Permanent or temporary;
- Reversible or irreversible; and
- Short, medium or long term.

8.46. The IEMA GHG Guidance advises that the approach should be modified for the very largest-scale developments, which can in themselves have magnitudes of GHG emissions that materially affect the UK's or a devolved administration's total carbon budget. In the case of such developments, irrespective of the level of mitigation proposed, if net GHG emissions exceed 5% of the relevant UK or devolved administration carbon budget, the effects of the development are likely to be significant.

8.47. The guidance also advises that *'Practitioners should note that existing policy and regulation may in some cases lag behind the necessary levels of GHG emission reductions (or types of actions to achieve those) that are compatible with the UK's or devolved administrations' targets and with a science based 1.5°C compatible trajectory towards net zero. Meeting the minimum standards set through existing policy or regulation cannot necessarily be taken as evidence of avoiding a significant adverse effect, and it is recommended that practitioners consider and have reference also to emerging policy/standards and the guidance of expert bodies such as the CCC on necessary policy developments, particularly for multi-phased projects with long timescales. This must be evaluated by the practitioner as part of the evidence base used in the assessment of effects. References to 'existing' and 'emerging' policy in the principles of significance and example criteria above must be interpreted with this in mind.'*

Contextualisation of GHG emissions

8.48. The IEMA Guidance also recommends that the context of the project's carbon footprint is determined in order to establish whether the project supports or undermines the trajectory towards net zero. This can help decision makers in their evaluation of the effects of the proposals.

8.49. As noted in the previous section, the UK has a defined national carbon budget and budgets have also been set by devolved administrations, which the CCC has confirmed are compatible with net zero and international climate commitments. The IEMA GHG Guidance advises that the starting point for contextualising the project's GHG emissions should be the percentage contribution of the project to the relevant national or devolved administration carbon budget. However, it goes on to advise that the contribution of most individual projects to national-level budgets will be small and so this context will have limited value. In response, the guidance presents a good practice approach for contextualising a project's GHG emissions against pre-determined carbon budgets or against emerging policy and performance standards, where a budget is not available. This is shown in Figure 8.3.

8.50. Under the Manchester Climate Change Action Plan, Manchester City Council has a 'target for the Council to reduce its direct CO_2 emissions by 50% between 2020 and 2025'. This target is only applicable to the activities of the Council, and not for all emissions occurring within the council boundary. Whilst Manchester City Council has not yet formally adopted carbon budgets, the Tyndall Centre for Climate Change Research previously produced carbon budget reports (the "Tyndall Carbon Budget Reports") that provided recommended climate change commitments for UK Local Authority areas aligned with the commitments in the Paris Agreement, informed by recent science on climate change and defined by science based carbon budget setting. The Tyndall Carbon Budget Report for Manchester provided MCC with recommended budgets for CO_2 emissions from the energy system for 2018-2100. It was proposed in the EIA Scoping Report, and subsequently agreed in the EIA

Scoping Opinion, that the net GHG emissions arising from Proposed Development would be considered in the context of the Tyndall Centre recommended carbon budgets in the ES chapter. However, in the interim, the Tyndall Centre data has been discontinued. A new carbon budget tool produced by Logika Group (the 'The Logika Local Authority Carbon Budget Tool') aims to serve as a substitute for the discontinued Tyndall Centre data. Like the Tyndall Centre data, the carbon budgets provided by the Logika Carbon Budget Tool do not have any legislated status. However, because they are derived from the UK's legislated carbon budgets and the CCC Balanced Pathway, they are intended to be representative of Local Authority emissions as a sub-division of the legislated national budgets. Unlike the Tyndall Centre carbon budgets, which were energy-only carbon budgets, the Logika carbon budgets include all emission sources, and all greenhouse gases, that occur geographically within the local authority area.

8.51. The net GHG emissions arising from the Proposed Development have been considered in the context of both the UK national carbon budgets and the Logika recommended carbon budgets for Manchester City. To ensure alignment with the EIA Scoping Opinion, the net GHG emissions associated with operational energy arising from the Proposed Development have also been considered in the context of the now-discontinued Tyndall Centre recommended energy-only carbon budgets.

8.52. The UK national carbon budgets for the period over which the Proposed Development will be under construction and operational are presented in Table 8.4. The UK national carbon budgets cover the fourth, fifth, and sixth budget periods. The CCC has provided a recommendation for the seventh carbon budget period (2038 – 2042) which has been included in the table. However, the UK Government has not yet formally adopted a seventh carbon budget.

Table 8.4 - UK National Carbon Budgets

Carbon budget	Period	Million tonnes of CO_2e
Fourth	2023 – 2027	1,950
Fifth	2028 – 2032	1,725
Sixth	2033 – 2037	965
Seventh	2038 – 2042	535

8.53. The construction period for the Proposed Development is expected to fall within the fourth and fifth carbon budget periods, from 2026-2030. The operational stage is expected to commence after the construction period, with the Proposed Development becoming operational in 2030.

8.54. The Tyndall Centre energy-only carbon budgets for Manchester City for the same period (2023 to 2042) are presented in Table 8.5.

Table 8.5 - Tyndall Centre Energy-Only Carbon Budgets for Manchester

Carbon budget period	Million tonnes of CO_2e
2023 – 2027	4.6
2028 – 2032	2.4
2033 – 2037	1.2
2038 – 2042	0.6

8.55. The Logika carbon budgets for Manchester City for the same period (2023 to 2042) are presented in Table 8.6.

Table 8.6 - Logika Carbon Budgets for Manchester

Carbon budget period	Million tonnes of CO_2e
2023 – 2027	10.58
2028 – 2032	7.79
2033 – 2037	4.91

Carbon budget period	Million tonnes of CO_2e
2038 – 2042	2.77

8.56. For the purpose of this assessment, the results of the emissions calculations have been presented in terms of their percentage contribution to the relevant carbon budget period, as set out above. Given that the Tyndall Centre carbon budgets are "energy-only", the comparison of the Proposed Development's GHG emissions with these local budgets has been limited to the scheme's GHG emissions arising from operational energy use to ensure consistency.

Baseline Conditions

8.57. The baseline is a reference point against which the effects of the Proposed Development can be compared. The IEMA GHG Guidance states that 'the ultimate goal of establishing a baseline is being able to assess and report the net GHG impact of the proposed project.'

8.58. The Site is not currently in use and therefore it is assumed that there are currently no GHG emissions from the Site.

8.59. The future baseline scenario considers how the GHG emissions associated with the Site are likely to change in the future, should the Proposed Development not come forward, based on a time period comparable to the design life of the Proposed Development (i.e., 60 years). Should the Proposed Development not come forward, for the purposes of this assessment, it has been assumed that the Site would remain in its current state. As such, the future baseline GHG emissions from the EIA Site are also considered to be zero.

Identification and Evaluation of Likely Significant Effects

8.60. As stated in paragraph 8.39, the assessment of the likely significance of effects from GHG emissions has been determined based on whether the project supports or undermines a trajectory towards net zero and is in line with national and local policy requirements. The assessment of effect significance is set out in paragraph 8.73.

Construction and Operational Phases

8.61. Table 8.7 sets out the GHG emissions (tCO2e) produced by the Proposed Development across the 60-year RSP for a non-decarbonised and a decarbonised scenario. The non-decarbonised scenario assumes current carbon factors remain constant throughout the 60-year reference study period, meaning operational energy and lifecycle emissions reflect today's grid intensity and material supply chains.

8.62. In contrast, the decarbonised scenario incorporates anticipated reductions in carbon intensity aligned with UK Net Zero targets and sectoral decarbonisation pathways. This results in lower emissions for operational energy (lifecycle stage B6) and some lifecycle stages such as operational water use (lifecycle stage B7) and End-of-life stage (lifecycle stage C1-C4). The calculations for both the non-decarbonised and a decarbonised scenario do not currently account for the proposed embedded mitigation set out within section 8.67 to 8.70.This is expected to further reduce the overall GHG emissions for the Proposed Development. However, this has not been quantified at this stage

8.63. The WLCA (Hawkins Brown, 2025) does not include operational stage transport-related emissions within its scope. Operational transport emissions have been assessed using information provided by Buro Happold, the project Transport Consultants, and benchmark assumptions derived from Department for Transport statistics (DESNZ, 2025).Carbon factors provided from the latest Department for Energy Security and Net Zero (DESNZ) 2025 have been applied consistently across the 60 year reference period and do not incorporate future decarbonisation of the energy grid or other technological improvements. As such this results in no variation in total carbon emission between the non-decarbonised and a decarbonised scenario for the aspect of the assessment.

Table 8.7 - Estimated total GHG emissions (tCO2e)

Lifecycle Stage/Module	Non-decarbonised Scenario Total GHG emissions (tCO_2e)	Decarbonised Scenarios Total GHG emissions (tCO_2e)
Produce stage (lifecycle stage A1-A3) (Inclusive of sequestered carbon within installed materials/ products)*	5,697.69	5,697.69
Construction process stage (lifecycle stage A4-A5)	890.62	890.62
In use stage embodied carbon (lifecycle stage B1-B5)	6,695.92	3,356.75
Use stage operational energy (lifecycle stage B6)	24,335.00	7,191.80
Use stage operational water use (lifecycle stage B7)	230.00	46.00
Use stage operational transport	26,167.06	26,167.06
End-of-life stage (lifecycle stage C1-C4)	1,519.95	1,285.88
Total*	**65,536.23**	**45,589.28**

Cumulative Effects

8.64. The atmospheric concentration of GHGs and the resulting effects on climate change are affected by all sources (anything emitting GHG) and sinks (anything absorbing GHG) globally, anthropogenic and otherwise. As GHG emission impacts and resulting effects are global rather than affecting one localised area, the approach to cumulative effects assessment for GHGs differs from that for many EIA topics where only projects within a geographically bounded study area would be included.

8.65. As such, as stated in the IEMA Guidance, effects of GHG emissions from specific cumulative schemes should not be individually assessed, as there is no basis for selecting any particular (or more than one) cumulative project that has GHG emissions for assessment over any other. The Guidance goes on to advise that the contextualisation of GHG emissions should incorporate by its nature the cumulative contributions of other GHG sources which make up that context.

8.66. As part of this assessment, an inter-development cumulative effects assessment has not been undertaken on a specific cumulative scheme basis; however, the Proposed Development's GHG emissions have been considered in the context of the UK national carbon budgets, and the Tyndall Centre recommended energy-only carbon budgets and Logika carbon budgets for Manchester City. As such, the cumulative contributions of other GHG sources that make up the national and local contexts have been considered within the assessment.

Mitigation Measures

8.67. This section describes the mitigation measures "embedded" into the Proposed Development (or 'primary mitigation') (i.e. where commitments have been made) which are relevant to this Chapter.

8.68. The Environmental Standards Statement (ESS) (Buro Happold, 2025) sets out the following embedded mitigation measures:

<u>Product Stage (lifecycle stage A1-A3)</u>

- The design will consider the application of materials with recycled content and the potential of specifying recycled aggregates during the procurement process.

Construction Process Stage (lifecycle stage A4-A5)

- The Main Contractor will be required to set targets and monitor and record data for the potable water consumption arising from the use of construction plant, equipment (mobile and fixed) and site accommodation.

- A pre-demolition audit to identify materials suitable for reuse or recycling is to be completed in line with BREEAM Wst 01.

- The Construction Management Plan (CMP) outline where vehicles will be restricted from accessing the site, other than for deliveries, emergencies and for those with disabilities. This minimises the emissions generated on site as far as reasonable.

In-use stage Operational Energy (lifecycle stage B6)

- The proposed development is designed to be "all-electric", with no reliance on gas or fossil fuel for the heating of the premises. The use of air source heat-pump heating and cooling will take advantage of the advancing decarbonisation of the electricity grid. In addition, in line with Policy JP-S2, 500m^2 roof mounted photovoltaic (PV) panels will be installed at roof level of the Proposed Development.
- Whilst the connection to a district heat network has been deemed not viable, the building has been 'designed with future connection should a district wide heat network become available.
- The building fabric performance will ensure that heating and cooling demands are minimised.

In-use stage operational transport

- No new parking is proposed as part of the development proposal
- The revised layout results in a net reduction of four standard parking bays, equating to 3% decrease in total provision, while maintaining the number of accessible bays

End-of-life stage (lifecycle stage C1-C4)

- The project will incorporate 'design for disassembly (DFD) principles into its end-of life strategy, whilst striving for regenerative systems, wherever practical and feasible.'

8.69. The Energy and Carbon Statement (ECS) (Buro Happold, 2025) sets out the following embedded mitigation measures:

In-use stage Operational Energy (lifecycle stage B6)

- The proposed development is designed to be "all-electric", with no reliance on gas or fossils fuel for the heating or cooling of the premises. The use of primarily heat-pump heating and cooling will take advantage of the advancing decarbonisation of the electricity grid.
- The proposed services strategy includes the utilisation of air-source heat pumps to provide heating, cooling and domestic hot water, taking advantage of the decarbonised electricity grid.
- The proposals include the installation of 500 m^2 of photovoltaic panels. Predicted energy use intensity ranges from 107 to 134 kWh/m2/year, reducing to 99 to 126 kWh/m2/year with PV contribution.
- Window-to-Wall ratios have been optimised to limit unwanted solar gains. Glazing with optimum g-value (0.25) and U-value will be implemented to reduce heat gains and losses.
- Air handling units have been designed to minimise system pressures and maximise fan wire to air efficiencies
- High efficiency LED lighting will be used throughout with demand based addressable controls as appropriate (daylight switched/dimmed, occupancy sensors etc.)

- Domestic hot water is generated via dedicated high temperature CO_2 air-source heat pump.

8.70. The WLCA (Hawkins Brown, 2025) sets out the following additional embedded mitigation measure:

- Priorities include increasing recycled aluminium content, exploring alternative glazing specifications, and rationalising panel systems to reduce sub-framing demand.
- Future reductions may be applied on targeted interventions across concrete, steel, aluminium, and glazing, supported by MEP rationalisation.

Residual Effects

Comparison with UK and Manchester Carbon Budgets

8.71. Table 8.8, Table 8.9 and Table 8.10 set out the net GHG emissions arising from the Proposed Development's construction and operational phases in the context of the UK national carbon budgets, the Tyndall Centre Energy Only Carbon Budgets for Manchester City and the Logika Carbon Budgets for Manchester City respectively, considering both the embedded mitigation. Both the non-decarbonised and decarbonised scenarios have been included in the contextualisation.

8.72. Given that the future baseline GHG emissions from the EIA Site are considered to be zero, the Proposed Development's net GHG emission are consistent with the gross GHG emissions. The budget comparison has there been undertaken based on the Proposed Development's gross GHG emissions.

Table 8.8 - Post mitigation comparison of the GHG emissions arising from the Proposed Development with the UK National Carbon Budgets

UK National Carbon Budgets		Impact			
		Non-Decarbonised Scenario		Decarbonised Scenario	
UK Carbon Budget Period	UK Carbon Budget ($MtCO_2e$)	GHG emissions from the Proposed Development (tCO_2e)	Proposed Development % of UK Carbon Budget	GHG emissions from the Proposed Development (tCO_2e)	Proposed Development % of UK Carbon Budget
Fourth (2023-2027)	1,950	2,039.24	0.0001	2,039.24	0.0001
During the fourth budget period, the Proposed Development would generate GHG emissions from the construction process (A1-A5). This equates to 0.0001% of the total carbon budget in both the non-decarbonised and decarbonised scenarios. It is expected that the proposed embedded mitigation set out in sections 8.67 to 8.70 would reduce the GHG emissions generated by the Proposed Development. However, it has not been possible to quantify this at this stage. The Proposed Development is unlikely to have a material impact on the UK's ability to meet this carbon budget.					
Fifth (2028-2032)	1,725	6,782.38	0.0004	5,978.69	0.0003
During the fifth budget period, the Proposed Development would generate GHG emissions from the construction process (A1-A5), in use stage embodied carbon (B1-B5), operational energy (B6), operational water consumption (B7), and operational transport. This equates to 0.0004% and 0.0003% of the total carbon budget during the non-decarbonised scenario and decarbonised scenario respectively. It is expected that the proposed embedded mitigation set out in sections 8.67 to 8.70 would reduce the GHG emissions generated by the Proposed Development. However, it has not been possible to quantify this at this stage. The Proposed Development is unlikely to have a material impact on the UK's ability to meet this carbon budget.					
Sixth (2033-2037)	965	4,785.66	0.0005	3,063.47	0.0003
During the sixth budget period, the Proposed Development would generate GHG emissions from in use stage embodied carbon (B1-B5), operational energy (B6), operational water consumption (B7), and operational transport. This equates to 0.0005% of the total carbon budget during the non-decarbonised scenario and 0.0003% during the decarbonised scenario. It is expected that the proposed embedded mitigation set out in sections 8.67 to 8.70 would reduce the GHG emissions generated by the Proposed Development. However, it has not been possible to quantify this at this stage. The Proposed Development is unlikely to have a material impact on the UK's ability to meet this carbon budget.					

UK National Carbon Budgets		Impact			
		Non-Decarbonised Scenario		Decarbonised Scenario	
UK Carbon Budget Period	UK Carbon Budget ($MtCO_2e$)	GHG emissions from the Proposed Development (tCO_2e)	Proposed Development % of UK Carbon Budget	GHG emissions from the Proposed Development (tCO_2e)	Proposed Development % of UK Carbon Budget
Seventh (2038-2042)	535	4,785.66	0.0009	3,063.47	0.0006
During the seventh budget period, the Proposed Development would generate GHG emissions from in use stage embodied carbon (B1-B5), operational energy (B6), operational water consumption (B7), and operational transport. This equates to 0.0009% of the total carbon budget during the non-decarbonised scenario and 0.0006% during the decarbonised scenario. It is expected that the proposed embedded mitigation set out in sections 8.67 to 8.70 would reduce the GHG emissions generated by the Proposed Development. However, it has not been possible to quantify this at this stage. The Proposed Development is unlikely to have a material impact on the UK's ability to meet this carbon budget.					

Table 8.9 - Post-mitigation comparison of the GHG emissions arising from the Proposed Development with the Tyndall Centre Energy-Only Carbon Budgets for Manchester City

Tyndall Centre Energy Only Carbon Budgets for Manchester		Impact			
		Non-Decarbonisation Scenario		Decarbonisation Scenario	
Carbon Budget Period	Carbon Budget ($MtCO_2e$)	GHG emissions from the Proposed Development (tCO_2e)	Proposed Development % of Carbon Budget	GHG emissions from the Proposed Development (tCO_2e)	Proposed Development % of Carbon Budget
Fourth (2023-2027)	4.60	0.00	0.00	0.00	0.00
During the fourth budget period, the Proposed Development would not produce any GHG emissions related to operational energy.					
Fifth (2028-2032)	2.40	6,782.38	0.0394	279.68	0.0117
During the fifth budget period, the Proposed Development would generate GHG emissions from operational energy (B6). This equates to 0.0394% of the total carbon budget during the non-decarbonised scenario and 0.0117% of the total carbon budget during the decarbonised scenario. It is expected that the proposed embedded mitigation set out in sections 8.67 to 8.70 would reduce the GHG emissions generated by the Proposed Development. However, it has not been possible to quantify this at this stage. The Proposed Development is unlikely to have a material impact on Manchester City's ability to meet this carbon budget.					
Sixth (2033-2037)	1.20	2,027.92	0.1690	599.32	0.0499
During the sixth budget period, the Proposed Development would generate GHG emissions from operational energy (B6). This equates to 0.1690% of the total carbon budget during the non-decarbonised scenario and 0.0499% during the total carbon budget during the decarbonised scenario. It is expected that the proposed embedded mitigation set out in sections 8.67 to 8.70 would reduce the GHG emissions generated by the Proposed Development. However, it has not been possible to quantify this at this stage. The Proposed Development is unlikely to have a material impact on Manchester City's ability to meet this carbon budget.					
Seventh (2038-2042)	0.60	2,027.92	0.3380	599.32	0.0999
During the seventh budget period, the Proposed Development would generate GHG emissions from operational energy (B6). This equates to 0.3380% of the total carbon budget during the non-decarbonised scenario and 0.0999% during the total carbon budget during the decarbonised scenario. It is expected that the proposed embedded mitigation set out in sections 8.67 to 8.70 would reduce the GHG emissions generated by the Proposed Development. However, it has not been possible to quantify this at this stage. The Proposed Development is unlikely to have a material impact on Manchester City's ability to meet this carbon budget.					

Table 8.10 - Post-mitigation comparison of the GHG emissions arising from the Proposed Development with the Logika Carbon Budgets for Manchester City

Logika Carbon Budgets for Manchester		Impact			
		Non-Decarbonisation Scenario		Decarbonisation Scenario	
Carbon Budget Period	Carbon Budget ($MtCO_2e$)	GHG emissions from the Proposed Development (tCO_2e)	Proposed Development % of Carbon Budget	GHG emissions from the Proposed Development (tCO_2e)	Proposed Development % of Carbon Budget
Fourth (2023-2027)	10.58	2,039.24	0.0193	2,039	0.0193
During the fourth budget period, the Proposed Development would generate GHG emissions from the construction process (A1-A5). This equates to 0.0193% of the total carbon budget during the non-decarbonised scenario and decarbonised scenario. It is expected that the proposed embedded mitigation set out in sections 8.67 to 8.70 would reduce the GHG emissions generated by the Proposed Development. However, it has not been possible to quantify this at this stage. The Proposed Development is unlikely to have a material impact on Manchester City's ability to meet this carbon budget.					
Fifth (2028-2032)	7.79	6,782.38	0.0871	5,978.69	0.0767
During the fifth budget period, the Proposed Development would generate GHG emissions from the construction process (A1-A5), in use stage embodied carbon (B1-B5), operational energy (B6), operational water consumption (B7), and operational transport. This equates to 0.0871% of the total carbon budget for the non-decarbonised scenario and 0.0797% for the decarbonised scenario. It is expected that the proposed embedded mitigation set out in sections 8.67 to 8.70 would reduce the GHG emissions generated by the Proposed Development. However, it has not been possible to quantify this at this stage. The Proposed Development is unlikely to have a material impact on Manchester City's ability to meet this carbon budget.					
Sixth (2033-2037)	4.91	4,785.66	0.0975	3,063.47	0.0624
During the sixth budget period, the Proposed Development would generate GHG emissions from in use stage embodied carbon (B1-B5), operational energy (B6), operational water consumption (B7), and operational transport. This equates to 0.0975% of the total carbon budget during the non-decarbonised scenario and 0.0624% of the total carbon budget during the decarbonised scenario. It is expected that the proposed embedded mitigation set out in sections 8.67 to 8.70 would reduce the GHG emissions generated by the Proposed Development. However, it has not been possible to quantify this at this stage. The Proposed Development is unlikely to have a material impact on Manchester City's ability to meet this carbon budget.					
Seventh (2038-2042)	2.77	4,785.66	0.1728	3,063.47	0.1106
During the seventh budget period, the Proposed Development would generate GHG emissions from in use stage embodied carbon (B1-B5), operational energy (B6), operational water consumption (B7), and operational transport. This equates to 0.1728% of the total carbon budget during the non-decarbonised scenario and 0.1106% of the total carbon budget during the decarbonised scenario. It is expected that the proposed embedded mitigation set out in sections 8.67 to 8.70 would reduce the GHG emissions generated by the Proposed Development. However, it has not been possible to quantify this at this stage. The Proposed Development is unlikely to have a material impact on Manchester City's ability to meet this carbon budget.					

Proposed Development alignment with Policy requirements and the Net Zero trajectory

8.73. As set out in paragraph 8.35, the IEMA GHG Guidance sets out an approach where the assessment of effect significance should comprise judgements on the Proposed Development's consistency with policy requirements. A review of the compliance of the Proposed Development with relevant policy is presented in Table 8.11.

Table 8.11 - Compliance of the Proposed Development with relevant policy

Policy requirement	Proposed Development compliance
National Policy	
<u>The National Planning Policy Framework (MHCLG, 2025)</u> Paragraph 164: 'New development should be planned for in ways that help to reduce greenhouse gas emissions, such as through its location, orientation and design. Any local requirements for the sustainability of buildings in plans should reflect the Government's policy for national technical standards.' Paragraph 165: 'To help increase the use and supply of renewable and low carbon energy and heat, plans should: a) provide a positive strategy for energy from these sources, that maximises the potential for suitable development, and their future re-powering and life extension, while ensuring that adverse impacts are addressed satisfactorily (including cumulative landscape and visual impacts); b) consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure their development; and c) identify opportunities for development to draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers.' Paragraph 166: 'In determining planning applications, local planning authorities should expect new development to: a) comply with any development plan policies on local requirements for decentralised energy supply unless it can be demonstrated by the applicant, having regard to the type of development involved and its design, that this is not feasible or viable; and b) take account of landform, layout, building orientation, massing and landscaping to minimise energy consumption.'	Paragraph 164: • As stated in the ESS (Buro Happold, 2025) and ECS (Buro Happold, 2025), the Proposed Development commits to operational net zero carbon from day one via a supply of zero carbon energy. The Proposed Development will utilise air source heat pump (ASHP) for heating and cooling. • The proposals include the installation of 500 m2 of photovoltaic panels. • Water demand will be reduced in line with best practice. The WLCA (Hawkins Brown, 2025) and the ESS (Buro Happold, 2025) states: 'The design will consider the application of materials with recycled content and the potential of specifying recycled aggregates during the procurement process'. Paragraph 165: • As outlined within the ECS (Buro Happold, 2025), • The Proposed Development will maximise solar PV onsite, where feasible (500 m^2). • An all-electric approach is proposed, with no reliance on fossil fuels for heating. • The building fabric performance will minimise heating and cooling demands. Paragraph 166: • The Proposed Development will use low-energy implementations such as ASHP, as outlined within ECS (Buro Happold, 2025) , in line with the ambitions of national, regional, and local policy.
<u>The Building Regulations Part L 2021 Edition</u> A 31% reduction in carbon emissions over the previous Part L (2013) standard, achieved through better fabric performance standards, alongside low	• The ESS (Buro Happold, 2025) and the ECS (Buro Happold, 2025), state that 'the development will comply with current Building Regulations Part L (2021).'

Policy requirement	Proposed Development compliance
carbon heating and/or renewable energy generation e.g., solar photovoltaics (PV).	• Within the ECS (Buro Happold, 2025) it states: 'the building fabric performance will ensure that heating and cooling demands are minimised'. • The ESS (Buro Happold, 2025) sets out measures to be implemented to reduce energy demand and how the Proposed Development will meet the requirements of Part L.
Regional Policy	
<u>Places for Everyone (PfE) Joint Development Plan for Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Tameside, Trafford and Wigan (2024)</u> Policy JP-S 2 Carbon and Energy: • Promote the 'retrofitting of existing buildings with measures to improve energy efficiency and generate renewable and low carbon energy, heating and cooling' • 'Use of life cycle cost and carbon assessment tools' • 'Positive approach to renewable and low carbon energy schemes' • 'An expectation that new development will, unless it can be demonstrated that it is not practicable or financially viable: ○ Be net zero carbon ○ Incorporate adequate electric vehicle charging points ○ prioritise connection to a renewable energy/heating/cooling network in the first instance or a low carbon energy/heating/cooling network that is adaptable to non-fossil fuels at a later date' • Policy JP-S 6 Resource Efficiency • 'Using sustainable design and construction techniques to reduce carbon emissions, adapt and future proof to the impact of climate change, reduce and recycle waste and minimise water use.'	Policy JP-S 2 Carbon and Energy • A Whole Life Cycle Carbon Assessment (WLCA) has been undertaken at each lifecycle stage (Hawkins Brown, 2025) and sets out the operational energy use for the Proposed Development. • The ESS (Buro Happold, 2025) and ECS (Buro Happold, 2025) sets out the following: • The proposals include the installation of 500 m^2 of photovoltaic panels. • The Proposed Development commits to be net zero carbon from day one. • The building fabric performance will minimise heating and cooling demands. Policy JP-S Resource Efficiency • The Proposed Development will have a supply of zero carbon energy with the target of being operational net zero by day one. • The ESS (Buro Happold, 2025) and ECS (Buro Happold, 2025) sets out the following: • An all-electric approach is proposed, with no reliance on gas, or fossil fuel for heating. • The building fabric performance will ensure that heating and cooling demands are minimised. • Water demand will be reduced in line with best practice targets and in line with aspirations for BREEAM targets.
Local Policy	

Policy requirement	Proposed Development compliance
Guide to Development in Manchester Supplementary Planning Document and Planning Guidance. Adopted April 2007 'Developers should aim to reduce CO2 emissions by at least 25% more than the requirements of the current Building Regulations' 'Developers should aim for at least 20% of final site energy demand to be met by on-site renewable energy technologies.' 'New developments should seek to use water efficiently, through specification of water efficient device and through the use of rainwater harvesting and grey water recycling.' 'building materials used in new development and refurbishment schemes [are required] to be environmentally friendly wherever possible, and encourages the use of recycled building materials, which is also energy efficient. Site waste management plans should, therefore, be implemented to reduce the quantity of waste generated, and to increase re-use and recycling. Opportunities for reuse of existing structures should be explored, and where this is not appropriate, materials should be reused on site and incorporated into the new design where practicable. Materials that are environmentally friendly, of low embodied energy, locally sourced, and can be recycled or reclaimed when the building comes to the end of its life should be prioritised. Materials that contain environmentally damaging chemicals should be avoided.'	• The proposals include the installation of 500 m^2 of photovoltaic panels. • The Proposed Development will have a supply of zero carbon energy with the commitment of being operational net zero by day one. • Water demand will be reduced in line with best practice targets and in line with aspirations for BREEAM targets. Water harvesting is currently being investigated for the Proposed Development. • The design will consider the application of materials with recycled content and the potential of specifying recycled aggregates during the procurement process. • The Main Contractor will be required to set targets and monitor and record data for the potable water consumption arising from the use of construction plant, equipment (mobile and fixed) and site accommodation. • A pre-demolition audit to identify materials suitable for reuse or recycling, to be completed in line with BREEAM Wst 01. • The WLCA (Hawkins Brown, 2025) outlines the assumptions related to material recovery and recycling.
Manchester's Local Development Framework. Core Strategy Development Plan Document (MCC, 2012) (as amended, 2024) Policy EC 1 Employment and Economic Growth in Manchester 'Development proposals should have regard to: [] an aim of zero carbon emissions, through energy efficiency, renewable energy and contributing to low and zero carbon decentralised energy infrastructure' Policy EN 4 Reducing CO_2 Emissions by enabling Low and Zero Carbon Development 'All development must follow the principle of the Energy Hierarchy.'	Policy EC 1 • The proposals include the installation of 500 m^2 of photovoltaic panels. • The Proposed Development will have a supply of zero carbon energy with the target of being operational net zero by day one. • The ESS (Buro Happold, 2025) and ECS (Buro Happold, 2025) sets out the all-electric approach being taken, with no reliance on gas or fossil fuels for heating requirements. Policy EN 4 • The ECS (Buro Happold, 2025) sets out how the Energy Hierarchy has been applied in the design of the Proposed Development.

Policy requirement	Proposed Development compliance
'New development [] must be located and designed in a manner that allows advantage to be taken of opportunities for low and zero carbon energy supplies' 'New development [] will be used as a mechanism to help improve energy efficiency and provide low and zero carbon energy supplies to existing buildings; 'new development [] will be required to connect to and/or make contributions to low or zero carbon energy schemes and/or to incorporate provision to enable future connection to any existing/potential decentralised energy schemes.' 'use of building materials with low embodied carbon in new development and refurbishment schemes.'	• The ESS (Buro Happold, 2025) sets out the all-electric approach, with the use of solar PV panels where feasible. • The ESS (Buro Happold, 2025) sets out how the Proposed Development is being designed with the capability to connect to a district wide heat network if this becomes available in the future. • The WLCA (Hawkins Brown, 2025) provides an overview of how the Proposed Development will make use of building materials with low embodied carbon. Priorities include increasing recycled aluminium content, exploring alternative glazing specifications, and rationalising panel systems to reduce sub-framing demand.

Residual effects

8.74. Table 8.12 and Table 8.13 set out the assessment of residual effect significance for the construction and operational stages respectively in accordance with the IEMA GHG Guidance.

Table 8.12 - Assessment of residual effect significance during the construction stage

Receptor	Compliance with existing and emerging policy	Effect significance
Global atmosphere	• As set out in Table 8.11, it is considered that the Proposed Development in its operational phase is consistent with applicable existing and emerging local, regional and national net zero policy and good practice design standards for projects of this type. Therefore, in line with the IEMA GHG Guidance, this is considered to be a Minor Adverse effect. In line with the guidance, this effect is considered to be not significant.	Minor adverse, direct, long term and permanent.

Table 8.13 - Assessment of residual effect significance during the operational stage

Receptor	Compliance with existing and emerging policy	Effect significance
Global atmosphere	• As set out in Table 8.11, it is considered that the Proposed Development is consistent with applicable existing and emerging local, regional, and national net zero policy and good practice design standards for projects of this type. Therefore, in line with the IEMA GHG Guidance, this is considered to be a Minor Adverse effect. In line with the	Minor adverse, direct, long term and permanent.

Receptor	Compliance with existing and emerging policy	Effect significance
	guidance, this effect is considered to be not significant.	

Monitoring

8.75. No future monitoring is proposed

Reference List

- British Standards Institution (BSI). (2011). BS EN 15978:2011 Sustainability of Construction Works – Assessment of Environmental Performance of Buildings – Calculation Method;
- Building Services Research and Information Association (BSRIA) (2024). Rules of Thumb Guidance for Building Services;
- Chartered Institution of Building Service Engineers (CIBSE) (2018). SD5078: UK New Construction 3.0 Technical Manual;
- Climate Change Committee, The Seventh Carbon Budget (2025);
- Department for Environment, Food and Rural Affairs (Defra) The Third National Adaptation Programme and the Fourth Strategy for Climate Adaptation Reporting (2023)
- C40 Cities Climate Change Risk Assessment Guidance (2018, amended 2025).
- Department for Energy Security and Net Zero (DESNZ) (2011). The Carbon Plan: Delivering our Low Carbon Future;
- DESNZ (2021). Carbon Budgets Order;
- DESNZ (2022). British energy security strategy;
- Ministry of Housing, Communities and Local Government (MHCLG) (formerly DLUHC) (2012, amended 2025) National Planning Policy Framework (NPPF);
- MHCLG (formerly DLUHC) (2024). National Planning Practice Guidance;
- Greater London Authority (GLA) (2013). Scope 3 (Embodied) Guidance on Greenhouse Gas Accounting and Reporting;
- Greater Manchester Combined Authority (GCMA) (2024). Places for Everyone, Joint Development Plan – Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Tameside, Trafford, Wigan;
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- London Energy Transformation Initiative (LETI) (2020). Climate Emergency Design Guide – How new buildings can meet UK climate change targets. Available at: https://www.leti.uk/cedg;
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9. Summary of Residual Effects

Introduction

9.1. This chapter summarises the residual effects that are set out in each individual relevant chapter, as well as those contained within the demolition application ES provided within Appendix 1.1.

Town and Visual Impact

Construction Phase

Table 9.1: Residual Construction Effects

Likely Significant Effect	Receptor	Mitigation Measure	Means of Mitigation Implementation	Post Mitigation Residual Effect – Significance and Duration (Temporary/Permanent)
Townscape Receptors				
Minor adverse (not significant)	Townscape Character – The Corridor	Implementation of good site management, maintenance and housekeeping to ensure that the temporary deterioration to townscape character is kept to a practical minimum.	Construction Management and Phasing Plan	Minor adverse (not significant) / temporary
Minor adverse (not significant)	Urban Grain	As above.	Construction Management and Phasing Plan	Minor adverse (not significant) / temporary
Minor adverse (not significant)	Building Heights	As above.	Construction Management and Phasing Plan	Minor adverse (not significant) / temporary
Minor adverse (not significant)	Movement and Linkages	As above.	Construction Management and Phasing Plan	Minor adverse (not significant) / temporary
Minor adverse (not significant)	Environmental Designations and Public Open Space	As above.	Construction Management and Phasing Plan	Minor adverse (not significant) / temporary
Minor adverse (not significant)	Site Character	Construction techniques to minimise noise and vibration to surrounding areas of public realm. Perimeter fencing protecting surrounding area from changes to site character from construction works.	Construction Management and Phasing Plan	Minor adverse (not significant) / temporary
Visual Receptors				

Likely Significant Effect	Receptor	Mitigation Measure	Means of Mitigation Implementation	Post Mitigation Residual Effect – Significance and Duration (Temporary/Permanent)
Moderate adverse (significant)	View 1	Implementation of good site management, maintenance and housekeeping to ensure that the temporary deterioration to visual amenity are kept to a practical minimum.	Construction Management and Phasing Plan	Moderate adverse (significant) / temporary
Moderate adverse (significant)	View 2	As above.	Construction Management and Phasing Plan	Moderate adverse (significant) / temporary
No change	View 3	N/A	N/A	No change
Moderate adverse (significant)	View 4	As above.	Construction Management and Phasing Plan	Moderate adverse (significant) / temporary
Negligible adverse (not significant)	View 5	As above.	Construction Management and Phasing Plan	Negligible adverse (not significant) / temporary
Minor adverse (not significant)	View 6	As above.	Construction Management and Phasing Plan	Minor adverse (not significant) / temporary
Minor adverse (not significant)	View 7	As above.	Construction Management and Phasing Plan	Minor adverse (not significant) / temporary

Operational Phase

Table 9.2: Residual Operational Effects

Likely Significant Effect	Receptor	Mitigation Measure	Means of Mitigation Implementation	Post Mitigation Residual Effect – Significance and Duration (Temporary/Permanent)
Townscape Receptors				
Minor beneficial (not significant)	Townscape Character – The Corridor	Operational management strategy to ensure ongoing maintenance and management of the Proposed Development and grounds to maintain high-quality.	Operational management strategy	Minor beneficial (not significant) / permanent
Minor beneficial (not significant)	Urban Grain	As above.	Operational management strategy	Minor beneficial (not significant) / permanent
Minor beneficial (not significant)	Building Heights	As above.	Operational management strategy	Minor beneficial (not significant) / permanent
Minor beneficial (not significant)	Movement and Linkages	As above.	Operational management strategy	Minor beneficial (not significant) / permanent
Minor beneficial (not significant)	Environmental Designations and Public Open Space	As above.	Operational management strategy	Minor beneficial (not significant) / permanent

Likely Significant Effect	Receptor	Mitigation Measure	Means of Mitigation Implementation	Post Mitigation Residual Effect – Significance and Duration (Temporary/Permanent)
Minor beneficial (not significant)	Site Character	As above.	Operational management strategy	Minor beneficial (not significant) / permanent
Visual Receptors				
Moderate beneficial (significant)	View 1	Operational management strategy to ensure ongoing maintenance and management of the Proposed Development and grounds to maintain character and amenity of views.	Operational management strategy	Moderate beneficial (significant) / permanent
Minor neutral (not significant)	View 2	As above.	Operational management strategy	Minor neutral (not significant) / permanent
No change	View 3	N/A	N/A	No change
Moderate beneficial (significant)	View 4	As above.	Operational management strategy	Moderate beneficial (significant) / permanent
Negligible neutral (not significant)	View 5	As above.	Operational management strategy	Negligible neutral (not significant) / permanent
Minor beneficial (not significant)	View 6	As above.	Operational management strategy	Minor beneficial (not significant) / permanent
Minor beneficial (not significant)	View 7	As above.	Operational management strategy	Minor beneficial (not significant) / permanent

Wind Microclimate

Construction Phase

Table 9.3: Residual Construction Effects

Receptor	Sensitivity	Description of effect	Magnitude of change/impact	Effect significance
Construction site / empty site	Low	Potential temporary, variable, change of wind environment during construction. Negligible to small beneficial changes expected due to construction hoardings.	Negligible	Negligible

Operational Phase

Table 9.4: Residual Operational Effects

Receptor	Sensitivity	Description of effect	Magnitude of change/impact	Effect significance
Seating areas under entrance soffit	High	Wind conditions suitable for intended use (sitting).	N/A	N/A
Other seating areas	High	Similar wind conditions as in Baseline; conditions suitable for intended use (sitting).	Negligible	Negligible
Library main entrance	High	Similar wind conditions as in Baseline; up to one category better than intended use (standing).	Negligible – Small beneficial	Negligible – Minor/Moderate beneficial
Other entrances (stairwell and service doors)	High	Similar wind conditions as in Baseline; up to one category better than intended use (standing).	Negligible – Small beneficial	Negligible – Minor/Moderate beneficial
Cycle parking	Moderate	Similar wind conditions as in Baseline; up to one category better than intended use (standing).	Negligible – Small beneficial	Negligible – Minor beneficial
Previously existing off-site safety exceedance area in Baseline (Faculty of Business and Law northwest corner)	Low	Same off-site safety exceedance in Proposed as also present in Baseline condition. Therefore, considered as negligible in the assessment of this planning application.	Large (safety exceedance)	Negligible
All Saints Park (off-site receptor)	Low	Similar wind conditions as in Baseline; up to two categories better than intended use (pedestrian walkthrough).	Negligible – Medium beneficial	Negligible – Minor beneficial
Bus stops Oxford Rd (off-site receptor)	Moderate	Similar wind conditions as in Baseline; up to one category better than intended use (standing).	Negligible – Small beneficial	Negligible – Minor beneficial

Climate Change

Construction Phase

Table 9.5: Residual Construction Effects

Receptor	Compliance with existing and emerging policy	Effect significance
Global atmosphere	• As set out in Table 8.11, it is considered that the Proposed Development in its operational phase is consistent with applicable existing and emerging local, regional and national net zero policy and good practice design standards for projects of this type. Therefore, in line with the IEMA GHG Guidance, this is considered to be a Minor Adverse effect. In line with the guidance, this effect is considered to be not significant.	Minor adverse, direct, long term and permanent.

Operational Phase

Table 9.6: Residual Operational Effects

Receptor	Compliance with existing and emerging policy	Effect significance
Global atmosphere	• As set out in Table 8.11, it is considered that the Proposed Development is consistent with applicable existing and emerging local, regional, and national net zero policy and good practice design standards for projects of this type. Therefore, in line with the IEMA GHG Guidance, this is considered to be a Minor Adverse effect. In line with the guidance, this effect is considered to be not significant.	Minor adverse, direct, long term and permanent.

Air Quality

Construction Phase

Table 9.7: Residual Demolition Effects

Likely Significant Effect	Receptor	Mitigation Measure	Means of Mitigation Implementation	Post Mitigation Residual Effect – Significance and Duration (Temporary/Permanent)
Demolition phase				
Effects of emissions arising from dust generated during the demolition of existing building on the Site on human health	Surrounding sensitive uses, e.g. residential properties(high) and higher education (medium*)	Recommended mitigation measures have been outlined within Appendix 6.2.	Mitigation measures typically implemented through a DMP to be submitted as part of the planning application.	Negligible, short-term and temporary

Likely Significant Effect	Receptor	Mitigation Measure	Means of Mitigation Implementation	Post Mitigation Residual Effect – Significance and Duration (Temporary/Permanent)
Effects of emissions arising from traffic generated by onsite NRMM during demolition of existing building on the Site on human health	Surrounding sensitive uses, e.g. residential properties(high) and higher education (medium*)	Recommended mitigation measures have been outlined within Appendix 6.2.	Mitigation measures typically implemented through a DMP to be submitted as part of the planning application.	Negligible, short-term and temporary
Effects of emissions arising from traffic generated by the demolition of existing building on the Site on human health	residential properties(high) and higher education (medium*)	No mitigation is required	N/A	Negligible, short-term and temporary
*All existing sensitive receptors have been considered as high sensitivity receptors to provide a robust assessment.				

Noise and Vibration

Construction Phase

Table 9.8: Residual Demolition Effects

Receptor	Effect	Significance before mitigation	Supplementary mitigation	Residual effect significance
1	Demolition noise	Non-significant: negligible adverse	Production of a detailed DEMP and implementation of mitigation measures during works	Non-significant: negligible adverse
	Demolition vibration	Non-significant: negligible adverse		Non-significant: negligible adverse
2	Demolition noise	Significant: major adverse		Non-significant: low adverse
	Demolition vibration	Non-significant: negligible adverse		Non-significant: negligible adverse
3	Demolition noise	Non-significant: negligible adverse		Non-significant: negligible adverse
	Demolition vibration	Non-significant: negligible adverse		Non-significant: negligible adverse
4	Demolition noise	Non-significant: negligible adverse		Non-significant: negligible adverse
	Demolition vibration	Non-significant: negligible adverse		Non-significant: negligible adverse

10. Type 1 Cumulative Effects

10.1. This section gives consideration to 'Type 1' cumulative effects.

10.2. The assessment is informed by the results of the technical assessments as set out in Chapter 6 – 8, in addition to the demolition application ES as set out in Appendix 1.1 of this ES. It is based on professional opinion and experience of Deloitte in capacity as the EIA coordinator.

10.3. Type 1 cumulative effects are also known as 'inter-project' effects, which are the combined effects arising from the Proposed Development upon a set of defined sensitive receptors.

10.4. Type 2 cumulative effects are considered within the ES technical chapters. The technical chapters also had regard to the potential for Type 1 cumulative effects, however for robustness the results of a standalone assessment of these is provided below.

Legislation, Policy and Guidance

Legislation

10.5. There is no legislation outlining how cumulative effects should be assessed or determined as significant. However, there is a requirement in Part 1, Schedule 4 of the EIA Regulations to consider cumulative effects. Cumulative is not defined in the EIA Directive or Regulations however a dictionary definition is 'increasing by one addition after another'.

10.6. The EIA Regulations require 'a description of the likely significant effects', including cumulative effects.

10.7. In the context of this assessment, 'cumulative effects' refers to the interactions between different likely residual effects resulting from the Proposed Development (Type 1). Both positive and negative effects are considered across the construction and operational phases.

Policy

10.8. As this chapter considers the cumulative effects of the technical areas within the ES, all relevant policy has already been reviewed within the individual technical chapters.

Guidance

10.9. A number of guidance documents which relate to assessing cumulative effects have been used to inform the assessment and include:

10.10. European Commission (EC) Environment DG (May 1999), 'Study on the Assessment of Indirect and Cumulative Impacts as well as Impact Interaction', Hyder Consulting; and

10.11. Institute of Environmental Management and Assessment (1992), Guidelines for the Environmental Assessment of Road Traffic.

10.12. The EC guidelines 'are not intended to be formal or prescriptive, but are designed to assist EIA practitioners in developing an approach which is appropriate to a project'.

10.13. Paragraph 24 of the National Planning Practice Guidance (NPPG) (Reference ID: 4-024-20170728) outlines the consideration to be given to cumulative effects in the context of EIA:

"Each application (or request for a screening opinion) should be considered on its own merits. There are occasions, however, when other existing or approved development may be relevant in determining whether significant effects are likely as a consequence of a Proposed Development. The local planning authorities should always have regard to the possible cumulative effects arising from any existing or approved development."

Assessment Methodology and Significance Criteria

Methodology

10.14. This assessment is primarily concerned with where there is a likelihood of significant Type 1 cumulative effects occurring, in accordance with EIA practice and the NPPG guidance.

10.15. The assessment is based on experience and professional judgement, drawing upon relevant guidance set out above and the residual environmental effects identified within the results of the EIA technical assessments. The assessment has been undertaken by suitably qualified and experienced EIA practitioners.

10.16. The assessment has primarily focused on sensitive receptors identified within close proximity to the Site (e.g. local residents and businesses located in close proximity to the Site), likely cumulative effects, and their capacity to accommodate changes that will occur as a result of the combined residual environmental effects.

10.17. Relevant guidance has been reviewed, and an approach has been developed which uses the residual environmental effects identified within the ES. An exercise which tabulates the residual effects against receptors or receptor groups has then been carried out in order to identify the potential for Type 1 cumulative effects.

10.18. Negligible or neutral residual effects have been excluded from the assessment as, by their nature, they are considered to be imperceptible. Therefore, only minor, moderate or major effects have been given consideration during the assessment.

10.19. For the purposes of the assessment, receptor groups have been identified as those surrounding the Site and those identified within the individual technical assessments.

Significance Criteria

10.20. The following terms have been used to define the significance of the effects identified:

- Major effect: where the Proposed Development could be expected to have a very significant effect (either positive or negative) cumulatively;
- Moderate effect: where the Proposed Development could be expected to have a noticeable effect (either positive or negative) cumulatively;
- Minor effect: where the Proposed Development could be expected to result in a small, barely noticeable effect (either positive or negative) cumulatively; and
- Negligible: where no discernible effect is expected as a result of the Proposed Development cumulatively.

10.21. The significance level attributed to each effect has been assessed based on the magnitude of change due to the combination of residual effects and the sensitivity of the affected receptor/receiving environment to change, as outlined in Chapter 2 of the ES. Magnitude of change is assessed on a scale of major, moderate, minor and negligible and the sensitivity of the affected receptor/receiving environment is assessed on a scale of high, medium, low and negligible.

Limitations and Assumptions

10.22. Due to the reliance on qualitative data and subjective opinion, there are limitations related to the range and depth in which the cumulative effects have been investigated. It must be realised that analysing the

cumulative effects of developments is often speculative and cannot be predicted as clearly as individual effects such as the effects upon traffic of a development, which relies heavily upon quantitative data to inform the assessment.

10.23. As a result, a number of assumptions have been made throughout in terms of the outcome of the accumulation of effects and based upon professional judgement. This section and the assessment process of identifying the likely significant Type 1 cumulative effects have, however, provided a reasoned consideration of and insight into the potentially significant Type 1 cumulative effects of the Proposed Development.

Identification of Likely Significant Type 1 Cumulative Effects

Demolition, Construction and Operational Phase

10.24. Based on the methodology detailed above, Table 10.1 presents the results of the review of the potential for interactions of individual effects during the demolition, construction and operational phases of development. The potential effect interactions are then discussed further.

10.25. The below Air Quality and Noise and Vibration impacts have been informed by the demolition application ES (as provided at Appendix 1.1). These have been included within the below for robustness. The rationale for this is as outlined within section 1.8 of this report.

Table 10.1: Potential Interactions

Sensitive Receptor Group	Demolition Phase Residual Effects	Construction Phase Residual Effects	Operational Phase Residual Effects	Likely Significant Cumulative Effects
Local Residents	Noise and vibration: Construction noise for existing local residents and proposed future local residents. Construction traffic noise on local roads for existing local residents and proposed future local residents. Construction vibration to existing local residents. Negligible adverse (Not significant) Temporary and Short-Term Air Quality: Construction Phase - Dust Soiling and other air quality effects associated with the construction phase. Negligible, short-term and temporary	TVIA: Minor adverse (not significant), temporary	TVIA: Minor beneficial (not significant) / permanent	No likely significant Type 1 cumulative effects

Sensitive Receptor Group	Demolition Phase Residual Effects	Construction Phase Residual Effects	Operational Phase Residual Effects	Likely Significant Cumulative Effects
Local Businesses	Noise and Vibration: Potential damage to neighbouring buildings as a result of vibration. Potential noise intrusion during construction works. Negligible adverse (Not significant). Temporary and Short-Term	TVIA: Minor adverse (not significant), temporary	TVIA: Minor beneficial (not significant) / permanent	No likely significant Type 1 cumulative effects
Public Spaces	N/A	TVIA: Minor adverse (not significant), temporary Wind Microclimate: N/A	TVIA: Minor beneficial (not significant) / permanent Wind Microclimate: Similar wind conditions; up to two categories better than intended use (standing). Negligible.	No likely significant Type 1 cumulative effects
Pedestrians	N/A	TVIA: Minor adverse (not significant) / temporary Wind: N/A	TVIA: Minor beneficial (not significant) / permanent Wind: Similar wind conditions as in Baseline; up to one category better than intended use (standing).	No likely significant Type 1 cumulative effects
Carbon Emissions	N/A	Climate Change: minor adverse, direct, long term and permanent. In line with guidance, this effect is considered to be not significant	Climate Change: minor adverse, direct, long term and permanent. In line with guidance, this effect is considered to be not significant	No likely significant Type 1 cumulative effects

10.26. Table 10.1 shows that there are unlikely to be in-combination demolition, construction or operational phase Type 1 cumulative effects. This is due to the extensive technical assessments throughout the design process.

Mitigation Measures

10.27. Where relevant, the individual residual effects which contribute to the potential cumulation have been considered within the ES and mitigated where necessary and feasible.

10.28. Mitigation measures proposed will typically be implemented through a Construction Management Plan (CMP) to be submitted via planning condition prior to the commencement of construction.

Deloitte.

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