



All Saints Library, Manchester
Metropolitan University
Environmental Impact Assessment (EIA)
Scoping Report
August 2023



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1. Introduction

- 1.1. This Environmental Impact Assessment (EIA) Scoping Report has been prepared in respect of the partial demolition and associated redevelopment / partial refurbishment of Manchester Metropolitan University's existing All Saints Library Building, including a new build element of up to 22,000 sq. ft. (GIA), comprising twelve floors of library space, roof terrace and publicly accessible ground floor. The project as a whole will provide purpose-built library and work space for university students, with associated landscaping, cycle parking and associated works (the "Proposed Development").
- 1.2. The Proposed Development is located within the site of the existing All Saints Library, located on Oxford Road, Manchester ("the Site"). Please refer to the Site Plan at Appendix A.
- 1.3. This Scoping Report is submitted to Manchester City Council as a request for a Scoping Opinion under Regulation 15 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017.
- 1.4. In accordance with Regulation 15, paragraph 2(a), this report contains:
 - A plan sufficient to identify the land enclosed at Appendix A.
 - A brief description of the nature and purpose of the Proposed Development and of its possible effects on the environment.
 - An explanation of the likely significant effects of the development on the environment.

EIA Requirements

- 1.5. The EIA process is the mechanism by which development proposals are appraised in relation to the environmental criteria as well as socio-economic, engineering and technical considerations. The EIA process defines the context of the Proposed Development and examines the issues considered pertinent.
- 1.6. The purpose of the EIA is to establish both the nature of the Proposed Development and the environment within which it is likely to take place in order to identify likely significant effects on the environment that may arise. This is also undertaken by comparing the existing situation at the start of the work (baseline) with the situation once the Proposed Development is in place.
- 1.7. The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 require that any proposed development falling within the description of a 'Schedule 2 development' within the meaning of the 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 nature, size or location (Regulation 4(2)).
- 1.8. The Proposed Development falls under the category of "Infrastructure Projects – Urban Development Projects" (Schedule 2, 10, (b)) as described in the Regulations. The applicable threshold above which EIA is likely to be required for a site of over 5 hectare (ha) or if the development includes more than 150 dwellings. The indicative thresholds and criteria state that:

"In addition to the physical scale of such developments, consideration should be given to the potential increase in traffic, emissions and noise. EIA is unlikely to be required for the redevelopment of land unless the new development is on a significantly greater scale than the previous use, or the types of impact are of a markedly different nature or there is a high level of contamination."
- 1.9. Given the nature of the Proposed Development, an EIA is considered appropriate to test the likely significant effects of the Proposed Development. The Applicant therefore proposes to submit an Environmental Statement (in relation to certain topic areas where there is likely to be a significant effect of the environment) in support of the planning application.

Purpose of the Scoping Report

- 1.10. The process of identifying likely significant effects on the environment which should be addressed by the EIA is termed 'scoping' and the results are presented as a Scoping Report.

- 1.11. This Scoping Report sets out the framework within which the Environmental Statement ('ES') will be produced and the topic areas and information that will be contained within the document. It is issued to Manchester City Council ('MCC') as the Local Planning Authority ('LPA') for circulation to Statutory Consultees and other organisations who are invited to express their views on the proposed scope of the EIA, or suggest additional issues which may be considered to be of significance. The views expressed by Statutory Consultees will then be used by the LPA to inform the formal Scoping Opinion.
- 1.12. The LPA is required to respond to a formal request for a Scoping Opinion within five weeks of registering receipt.
- 1.13. Should the proposed scope of the EIA be accepted by the LPA, the intention would be that any future application relating to the Proposed Development would be accompanied by an EIA which would be produced by the team as set out in Table 1 and coordinated by Deloitte (IEMA EIA Quality Mark registered). The consultants have provided technical input to this initial EIA Scoping Report.

Note: although Deloitte has read the input of MMU, Hawkins Brown, Buro Happold and Planit-IE (together "the Consultant Inputs"), for consistency and provide observations based on our knowledge and experience, we accept no liability or responsibility for the Consultant's Inputs and will not be responsible for the technical content.

Table 1.1 EIA Project Team

Topic	Assessment carried out by	Qualifications
The Applicant	Manchester Metropolitan University (MMU)	N/A
Town Planning, EIA Coordination	Deloitte	RTPI/ RICS, IEMA EIA Quality Mark
Architect	Hawkins Brown	RIBA
Climate Change	Buro Happold	BSc, BArch, MSc, Qualified BREEAM Assessor, CIBSE Affiliate Member, BREEAM AP, CEnv.
Townscape and Visual Impact	Planit-IE	BA (Hons), BSc (Hons), MA, BLA, CMLI, MA
Wind	Buro Happold	MEng, CEng, FICE

- 1.14. Section 2 of this report provides a site description and outlines the nature of the Proposed Development. Section 3 sets out the proposed scope and structure of that an ES would take and who might need to be consulted. Section 4 provides details of the proposed EIA methodology, which would be used in assessing the Proposed Development. Section 5 sets out the key issues that would be addressed by the EIA.

2. Site Description and Proposed Development

Site Description

- 2.1. The Site lies within the City Centre, and within the Regional Centre as defined by MCC's Core Strategy 2012. The Site boundary extends to c.0.7 hectares.
- 2.2. The Site is bound to the east by Oxford Road, to the north by the Mancunian Way, Manchester Metropolitan University's Faculty of Business and Law to the west, and All Saints Park to the south. A Site Plan is enclosed with this letter at Appendix A for the purposes of identification.
- 2.3. The Site currently comprises the All Saints Library Building, a seven storey brick building, currently used as a library facility for students and staff of Manchester Metropolitan University, and comprising desk spaces, book clusters and meeting rooms. The Site is currently occupied, and it is intended that part of the site will remain in operation through the five year refurbishment and construction period.
- 2.4. The building's pedestrian access is currently from All Saints Park to the south of the building. There is no car parking associated to the library building.
- 2.5. A Site location plan is provided at Appendix A.
- 2.6. The Site forms a key site 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.
- 2.7. Low rise buildings are located to the east, on the opposite side of Oxford Road, which comprise of shops and commercial properties of approximately 2 to 3 storeys in height. To the south, All Saints Park provides public realm, surrounded by Manchester Metropolitan University Buildings, and St Augustine's Church.
- 2.8. To the west, there are further University buildings, and student accommodation. To the north, Mancunian Way runs east to west, and to the north of that, the Manchester Metropolitan University John R Dalton Building and Circle Square.
- 2.9. Within the wider area, there is a broad mix of uses that is characteristic of its location within the Regional Centre location, including:
 - Educational uses associated with Manchester Metropolitan University and the University of Manchester;
 - Student halls of residence, for students at Manchester Universities;
 - Commercial and industrial uses, including music venues and eateries; and
 - Sport, leisure and cultural uses, including Manchester Aquatics Centre.

Site Specific Environmental Designations

Air Quality

- 2.10. The Site is located within the Greater Manchester Air Quality Management Area.

Ecology

- 2.11. The Site has no statutory or non-statutory designation for nature conservation, and no statutory protected Sites lie on the Site or immediately adjacent to the Site boundary. There is one European designated Site within 10km of the development, Rochdale Canal Site of Special Scientific Interest (SSSI) and Special Area of Conservation (SAC). However, there are no nationally designated or non-statutory

designated Sites within 2km of the Site. The Site is not considered to be functionally linked to any statutory or non-statutory designated ecological or wildlife Site. All designated Sites are considered to be sufficiently distant and not directly connected to the Site as to avoid any adverse impacts from the proposed works.

- 2.12. An Ecological Assessment Report produced by Tyler Grange is included at Appendix C. This was originally produced in October 2020, and reviewed / updated in February 2023, and a preliminary bat roost assessment undertaken.
- 2.13. The Site is considered to have low bat roosting potential features in the onsite building.

Flood Risk and Drainage

- 2.14. The Site is located in Flood Zone 1.
- 2.15. To ensure that the risk from the proposed combined sewer is not increased, a surface water and foul water drainage strategy will be undertaken in consultation with MCC as Lead Local Flood Authority and United Utilities. The drainage strategy will include measures to reduce existing rates of surface water runoff, including the impact of climate change for the lifetime of the development through the use of Sustainable Drainage System techniques.
- 2.16. These measures will ensure that water quality, flood risk and sewerage infrastructure capacity are not compromised. Further details will be provided in a Flood Risk Assessment, assessing the impact of flooding to and from the site for the lifetime of the development and a Drainage Strategy to support the planning application.
- 2.17. To minimise the potential environmental effects during construction activities, such as the potential to contaminate local water resources, will be managed through the Construction Environmental Management Plan (CEPM) in accordance with good practice guidance. Additional supporting information will also be developed where appropriate and included in the Flood Risk Assessment and Drainage Strategy.

Heritage

- 2.18. There are no Conservation areas within the immediate vicinity of the Site, the nearest being the Whitworth Street Conservation Area c. 350m to the north.
- 2.19. There are a number of listed buildings in the vicinity of the Site. When drawing a radius of 250m from the Site (Figure 2.1), there are a total of 14 Listed Buildings that are identified, as detailed below;
 - Mill On North East Corner Of Junction With Chester Street, Grade II, No.1197776
 - Grosvenor Building, Grade II, No.1293192
 - Oddfellows Hall, Grade II, No.1200840
 - Chatham Mill, Grade II, No.1293040
 - Roman Catholic Church Of St Augustine, Grade II, No.1392331
 - Former Town Hall Facade to Mabel Tylecote Building, Grade II, No.1283062
 - Former Manchester Ear Hospital, Grade II, No.1197922
 - Dalton Statue In Forecourt Of Dalton College, Grade II, No.1197791
 - Righton Building, Grade II, No.1197781
 - Dancehouse Theatre Including Numbers 6-14, Grade II, No.1384997
 - 94-98, Grosvenor Street, Grade II, No.1218404
 - Adult Deaf And Dumb Institute (Former), Grade II, No.1200839
 - Former Grosvenor Picture Palace, Grade II, No.1218431
 - Ormond Building, Manchester Metropolitan University, Grade II, No.1219718

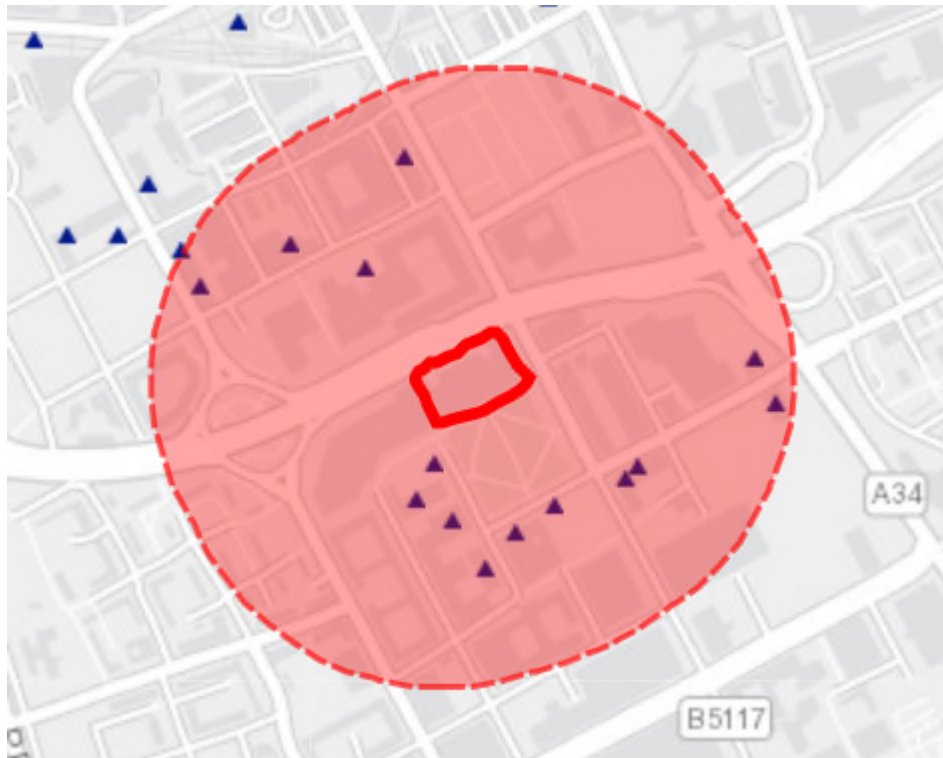


Figure 2.1 - Extract from Historic England Map Search Online Facility (May 2023)

Planning History

- 2.20. A planning history search for the Site has been undertaken using Manchester City Council's Public Access system. The results of the search have indicated that there have been no relevant Planning Permissions in recent years on the subject Site.
- 2.21. On adjacent sites, of most relevance is the All Saints Park public realm refurbishment and expansion (128485/FO/2020).

The Proposed Development

- 2.22. In summary, the Proposed Development comprises:

Table 2.2 Development Parameters

Proposed Parameters	
Site area (inside red line)	C. 6,700 sq m
Use (Library)	21,800 sq m GIA
Use (Terrace)	900 sq m GEA
Height	63 m, ground + 12 storeys
Parking	No car or cycle parking directly associated to the site, utilising the existing Manchester Metropolitan University travel plan.

3. Scope, Structure and Consultation

Scope

- 3.1. A scoping exercise has been carried out in order to determine the likely significant effects on the environment that may arise as a result of the Proposed Development. This process has enabled the team to determine which technical disciplines are pertinent to the Proposed Development and the scope of assessment required in order for any likely significant effects on the environment to be addressed as part of a future EIA process.
- 3.2. This process has taken account of the proposed construction activities, relevant planning policy, knowledge of the Site and the professional opinion of the project team.
- 3.3. The information presented in the ES will be provided in accordance with Schedule 4 of the EIA Regulations and will include:
- A description of the Proposed Development;
 - An outline of the main alternatives studied;
 - A description of the aspects of the environment likely to be significantly affected by the Proposed Development;
 - A description of the likely significant effects of the Proposed Development on the environment;
 - A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment;
 - A non-technical summary; and,
 - An indication of any difficulties encountered by the applicant in compiling the required information.
- 3.4. The introductory chapters of the ES will provide the following information:
- An introduction to the ES in a legislative and site specific context; Description of the Site and Proposed Development; Alternatives considered and project design evolution; EIA methodology; Construction methodology and programme; Stakeholder engagement; ES structure; and Details of the EIA project team.
 - The geographical coverage of the EIA will be determined by a number of factors including:
 - The physical extent of work; The nature of the baseline environment, including the location of sensitive receptors; The distance over which effects will be significant; and the presence and type of “pathways” along which impacts may be spread.

Environmental Disciplines to be Scoped Out of the EIA

- 3.5. It is considered that the following disciplines will not give rise to likely significant effects on the environment and would therefore not require inclusion in the ES. An explanation for each discipline is given below.

Arboriculture

- 3.6. The majority of habitats at the Site, which mostly consists of hardstanding, buildings and introduced shrub, are considered to be of negligible ecological importance.
- 3.7. There are five trees on site, along Oxford Road. They are identified as being mature, providing negligible bat roosting potential, though there are attached bird boxes at height.

- 3.8. Proposals will aim to retain as much vegetation as possible and to include further native species planting, such as shrub and planting on the terrace incorporated into the proposals, through a detailed landscaping strategy.
- 3.9. An Arboricultural Impact Assessment and Tree Management Plan will be undertaken as part of the planning application. With the implementation of appropriate mitigation, there is considered to be a low risk of significant environmental effects with regards to trees and plants.
- 3.10. Therefore, it is considered that there will not be any likely significant adverse effects in relation to arboriculture and it is proposed to scope these out of the EIA.

Construction Traffic and Transport

- 3.11. Whilst additional construction vehicle movements on the highway network are expected as part of the construction, this would result in a temporary disruption to traffic and transport. A detailed Construction Logistics Plan (CLP) would be prepared and implemented prior to commencement of the works (secured by planning condition), which will provide a framework for a range of measures to help mitigate the temporary environmental impact of construction activities on the surrounding community. This would include proposals for a Construction Traffic Management Plan (CTMP) to define construction vehicle routes as well as appropriate controls to manage and co-ordinate the movement of vehicles and pedestrians in and around the site.
- 3.12. Given that the increased traffic levels during the construction works would be temporary and the proposed mitigation measures to be implemented by managing construction traffic through the implementation of the CLP, traffic and transport effects during construction are unlikely to be significant.

Acoustics

- 3.13. The Site lies in an area which is considered to be subject to elevated noise levels associated with the multiple lane motorway, and other city centre uses in close proximity to the site.
- 3.14. Although construction noise is capable of creating high noise levels, it is considered that as part of this development, the noise generated as part of the development activity will be in line with that expected in a building such as this.
- 3.15. In terms of construction traffic, given the existing traffic flows on the surrounding network, any additional construction traffic would likely cause a negligible impact on receptors.
- 3.16. With relation to vibration impacts, these are likely to be negligible at the surrounding buildings. To minimise any potential construction noise and vibration impacts, a best practical means approach will be adopted and could be implemented as part of a Construction Environmental Management Plan. A full acoustic report will be submitted as part of the planning application.
- 3.17. Therefore, it is considered that there will not be any likely significant adverse effects during the construction phase and it is proposed to scope these out of the EIA.

Ground Conditions

- 3.18. Owing to the form of construction and intended uses, the risks to receptors are considered moderate/low to low based on the information collated as part of initial desk study.
- 3.19. A combined geotechnical and geoenvironmental investigation has taken place in accordance with relevant British Standards (BS5930:2015 and BS10175:2011+A2:2017) and other appropriate guidance to determine the risk from contamination. The geoenvironmental assessment undertaken has been completed in accordance with the Environment Agency Model Procedures (CLR11). Based on the site-specific ground investigation results and in accordance with good construction practice, an appropriate health and safety regime should be implemented to protect construction workers and neighbours from direct contact with soil materials (PPE) and also to minimise windblown dust etc in accordance with HSE guidance.
- 3.20. A detailed Phase 1 Ground Conditions Assessment will be submitted in support of the application. With the implementation of appropriate mitigation, there is therefore concluded to be a low risk of significant environmental effects. As such, Ground Conditions are proposed to be scoped out of the EIA.

Flood Risk and Drainage

- 3.21. A surface water and foul water drainage strategy will be undertaken in consultation with MCC as Lead Local Flood Authority and United Utilities. The drainage strategy will include measures to reduce existing rates of surface water runoff, including the impact of climate change for the lifetime of the development through the use of Sustainable Drainage System techniques.
- 3.22. These measures will ensure that water quality, flood risk and sewerage infrastructure capacity are not compromised. Further details will be provided in a Flood Risk Assessment, assessing the impact of flooding to and from the site for the lifetime of the development and a Drainage Strategy to support the planning application.
- 3.23. To minimise the potential environmental effects during construction activities, such as the potential to contaminate local water resources, will be managed through the Construction Environmental Management Plan (CEMP) in accordance with good practice guidance. Additional supporting information will also be developed where appropriate and included in the Flood Risk Assessment and Drainage Strategy.
- 3.24. Therefore, it is considered that there will not be any likely significant adverse effects during the construction and post-construction phases and it is proposed to scope these out of the EIA.

Traffic and Transport

- 3.25. Given that there is no car parking proposed as part of the Proposed Development and that the Site is highly accessible, it is envisaged that once the development is complete and operational, the majority of person trips to and from the Site will be by public transport and other sustainable travel modes such as walking and cycling.
- 3.26. The planning application will be supported by a standalone Transport Statement (TS), which will include sections on relevant transport policy; accessibility by all modes, and an assessment of the impact of the proposed development on the operation of the local highway network. The scope of this TS will be discussed and agreed in principle with highway officers at MCC during the pre-application discussions.
- 3.27. Based on the availability and capacity of public transport services in the local area, such as extension bus corridor on Oxford Road, and proximity to Oxford Road train and Deansgate Metrolink tram stations, and taking into account the implementation of travel planning measures as part of the existing site-wide Manchester Metropolitan University Travel Plan and the car-free proposals, the effect of the completed and operational development is not expected to give rise to significant traffic and transport effects on the transport networks.
- 3.28. Overall, it is not anticipated that there will be significant impacts in regard to traffic and transport as a result of the Proposed Development and it is therefore proposed to be scoped out of the EIA.

Noise and Vibration

- 3.29. The development proposals are not expected to generate significant numbers of additional road traffic movements, therefore no greater than negligible operational traffic noise impacts are anticipated.
- 3.30. The development proposals are expected to include for the installation and reconfiguration of some mechanical plant items, these plant items will include suitable attenuation measures to avoid adverse impacts on nearby sensitive receptors.
- 3.31. Throughout the design, Manchester City Council Policy Team will be referred to as appropriate for guidance.
- 3.32. The BREEAM Pol 05 credit is also sought for the scheme and sets limiting plant noise criteria that is also in line with MCC policy.
- 3.33. Therefore, it is considered that there will not be any likely significant adverse effects during the operational phase of the development and therefore it is proposed to scope these out of the EIA.
- 3.34. On the basis of the above, it is considered unlikely that significant adverse effects should occur due to either construction or operational noise associated with the development. Any impacts can be

successfully managed through following Manchester City Council local guidance and by containing relevant information in a CEMP.

- 3.35. Therefore, it is considered that there will not be any likely significant adverse effects during the construction and post-construction phases and it is proposed to scope Noise and Vibration out of the EIA.

Sunlight, Daylight and Overshadowing

- 3.36. The development proposals are not expected to generate any adverse impacts on the surrounding area in regard to daylight, sunlight and overshadowing during the construction or operation stages of development.
- 3.37. An Overshadowing Analysis will be undertaken for the neighbouring All Saints Park, based on BS 209 BRE 2022 Guidelines. In addition to this analysis, a desktop study will be undertaken to identify the sensitivity of the surrounding properties and a summary and design note will be provided to explain the proposed approach.
- 3.38. A full Daylight, Sunlight and Overshadowing Report will be produced to support the application. However, it is understood impacts on daylight and sunlight to nearby properties and public spaces will be limited, and as such, daylight and sunlight are proposed to be scoped out of the EIA.

Solar Glare

- 3.39. The development proposals are not likely to create any adverse impacts in relation to solar glare, due to the predominant building material being pre-cast concrete, which is not reflective.
- 3.40. A qualitative desktop assessment is proposed to be carried out by Buro Happold to determine the critical receptors in the area and establishment of the critical times during the year when solar glare could occur. A dynamic simulation study will also be undertaken to determine the magnitude of the solar glare impacts if deemed necessary, following the desktop assessment.
- 3.41. It is not anticipated that there will be any adverse impacts in relation to solar glare, both during construction and post-construction, and as such, this is scoped out of the EIA.

Ecology

- 3.42. This type of development (redevelopment of existing urban Site) is considered unlikely to increase indirect impacts to the wider area. Habitats onsite are of limited importance ecologically with only small areas of trees and hard standing.
- 3.43. An Ecological Impact Assessment (EcIA) will be carried out following the completion of the remaining ecological surveys including nocturnal surveys of the buildings with bat roosting potential and a biodiversity net gain (BNG) calculation for the Site will target a 10% net gain in line with local and national planning policy. The EcIA will confirm survey results and proposed mitigation measures to confirm that impacts on protected species (restricted to bats and nesting birds) will be avoided or adequately mitigated for.
- 3.44. A full EIA assessment for ecology is not considered necessary, as the Proposed Development does not meet criteria listed in Schedule 1 or 2 of the Regulations and does not lie within an ecologically sensitive area.
- 3.45. As such, ecology is proposed to be scoped out of the EIA.

Scoping Summary

- 3.46. Table 3.1 provides a summary of the scoping exercise undertaken and what disciplines will be considered within the EIA and which are proposed to be scoped out of the EIA (and subject to a standalone technical report).

Table 3.1 EIA Scoping Summary

Discipline	ES Chapter	Non-EIA Assessment	Consultant
Archaeology		✓	GMAAS
Ground Conditions		✓	Buro Happold
Flood Risk and Drainage		✓	Buro Happold
Traffic and Transport		✓	Buro Happold
Noise and Vibration		✓	Buro Happold
Sunlight, Daylight and Overshadowing		✓	Buro Happold
Solar Glare		✓	Buro Happold
Ecology		✓	Tyler Grange
Heritage		✓	Deloitte
Climate Change	✓		Buro Happold
Townscape and Visual Impact	✓		Planit-IE
Wind and Microclimate	✓		Buro Happold

Cumulative Effects Assessment

- 3.47. An assessment of the cumulative effect of the Proposed Development and other committed developments within a defined radius of the Site, including those with recent Planning Permissions and reasonably foreseeable to come forward in the near future will be undertaken as part of the EIA.
- 3.48. There is no agreed / standard threshold for how far the assessment should go, therefore a professional judgement has been taken regarding which schemes to highlight, taking into consideration the surrounding context of the Site.
- 3.49. Where the construction of schemes is well progressed, these will be treated as part of the baseline and not as committed developments.
- 3.50. Full details of the committed developments to be included as part of the cumulative effects assessment are set out at Appendix B.
- 3.51. The Applicant seeks the agreement from the LPA to the scope of committed developments and invites guidance on any additional schemes not listed.

Consultation

- 3.52. The following statutory consultees should be consulted through the EIA Scoping process:
- Manchester City Council (MCC) – Contaminated Land, Environmental Health, Flood Risk, Highways, Tree Officer (Technical Officers);
 - Transport for Greater Manchester (TfGM);
 - Environment Agency (EA);

- Greater Manchester Police Secure by Design;
- Historic England;
- Greater Manchester Archaeological Advisory Service;
- Manchester Airport Safeguarding;
- Natural England;
- NATS;
- Greater Manchester Ecological Unit; and
- United Utilities.

3.53. We would be grateful for confirmation of which stakeholders have been consulted as part of the Scoping Opinion.

4. Proposed EIA Methodology

- 4.1. The EIA would assess both the construction and operational phases of the Proposed Development.
- 4.2. The ES would comprise two volumes, the first of would set out the findings with respect to each of the environmental disciplines that have been examined as part of the EIA. Volume 2 would include all the supporting documents and technical appendices relating to the chapters. A Non-Technical Summary (NTS) would be produced and form a standalone document.
- 4.3. Each ES chapter would follow the headings set out below to ensure the final document is transparent, consistent and accessible.
- Introduction;
 - Legislative and Policy Context;
 - Assessment Methodology and Significance Criteria;
 - Baseline Conditions;
 - Identification and Evaluation of Key Effects;
 - Mitigation Measures;
 - Cumulative Effects;
 - Residual Effects; and
 - Summary.
- 4.4. Each chapter sub-heading is explained in further detail below.
- 4.5. A reference list will also be provided as relevant with each ES chapter.

Introduction

- 4.6. This section will introduce the assessment discipline and the purpose for which it is being undertaken.

Legislative and Policy Context

- 4.7. This section will include a summary of national, regional and local policies of relevance to the environmental discipline and assessment. Relevant legislation will be summarised where applicable.

Assessment Methodology and Significance Criteria

- 4.8. This section will provide an explanation of methods used in undertaking the technical study with reference to published standards, guidelines and best practice. The application of significance criteria will also be discussed.
- 4.9. It will also outline any difficulties encountered in compiling the required information.

Baseline Conditions

- 4.10. This will include a description of the environment as it is currently and as it is expected to change given the project were not to proceed (i.e. 'do-nothing' scenario). The method used to obtain this information will be clearly identified. Baseline data will be collected in such a way that the importance of the particular subject area to be affected can be placed in its context and surroundings so that the effects of the proposed changes can be predicted.

Identification and Evaluation of Likely Significant Effects

- 4.11. This section will identify the likely significant effects on the environment resulting from the Proposed Development.

- 4.12. The significance of an environmental effect is determined by the interaction of magnitude and sensitivity, whereby the effects can be positive or negative. The criteria to be used in carrying out this process are detailed below; it should be noted that these tables provide a standardised set of criteria, which may not be applicable to all technical disciplines considered within the EIA – where relevant, individual consultants may use a variation of the criteria and this will be clearly explained within the methodology.

Prediction of Impact Magnitude

- 4.13. The methodology for determining the scale or magnitude of change caused by the impact is set out in Table 4.1.

Table 4.1 Methodology for Assessing Magnitude of Change

Magnitude of Change	Criteria for assessing magnitude of change caused by an impact
Major	Total loss or major/substantial alteration to key elements/features of the baseline (pre-development) 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.
Negligible	Very little change from baseline conditions. Change barely distinguishable, approximating to a 'no change' situation.

Prediction of Receptor Sensitivity

- 4.14. The sensitivity of a receptor is based on the relative importance of the receptor using the scale set out in Table 4.2.

Table 4.2 Methodology for Determining 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.
Moderate	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.

Assessment of Effect Significance

- 4.15. Effect significance will be calculated using the matrix in Table 4.3. This illustrates the interaction between impact magnitude and receptor sensitivity.

Table 4.3: Effect Significance Matrix

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

Mitigation Measures

- 4.16. Adverse effects will be considered for mitigation and specific mitigation measures put forward, where practicable. Mitigation measures considered may include modification of the project, compensation and the provision of alternative solutions as well as pollution control. The extent of the mitigation measures and how these will be effective will be discussed. Where the effectiveness is uncertain or depends upon assumptions about operating procedures, data will be introduced to justify the acceptance of these assumptions.
- 4.17. The approach to mitigation will follow best practice guidance, which suggests a hierarchical approach. The UNEP EIA Training Resource Manual (2002) advises that impacts should ideally be:
- Avoided; if not minimised; and/or compensated.
- 4.18. Three ‘types’ of mitigation are characterised in IEMA’s Special Report – The State of Environmental Impact Assessment Practice in the UK (2011):
- EIA influence at design stage;
 - Standard construction practices for minimising effects; and
 - Follow-up actions for implementation post-consent.
- 4.19. Clear details of when and how the mitigation measures were carried out, or will be carried out, are to be given within the Environmental Statement. When certainty of impact magnitude and/or effectiveness of mitigation over time exists, monitoring programmes will be proposed to enable subsequent adjustment of mitigation measures, as necessary.
- 4.20. The opportunity for enhancement measures will also be considered where appropriate.

Cumulative Effects

- 4.21. Two types of cumulative effect will be assessed:
- Type 1 - Cumulative effects are the interactions between effects of the construction and development works on a single receptor.

- Type 2 - Cumulative effects are those that arise from incremental changes caused by other past, present or reasonably foreseeable actions together with the construction and development works.
- 4.22. The cumulative effects of the Proposed Development and the identified committed developments will be assessed. A list of known committed developments is set out at Appendix B. The Council are requested to review and comment on this list in their Scoping Opinion.

Residual Effects

- 4.23. The residual effects, i.e. the effects of the Proposed Development assuming implementation of proposed mitigation, will be determined. The residual effects represent the overall likely significant effect of the Proposed Development on the environment having taken account of practicable/available mitigation measures.

5. Environmental Statement

Chapters

- 5.1. Under each section topic, a summary of the content of the section, the methodology and scope of assessment is given. Where relevant, the assumptions of the assessment are described. Current relevant legislation or recognised guidance for individual assessments will be adhered to, where necessary.

Climate Change

Introduction

- 5.2. This Chapter of the ES will be prepared by Buro Happold and assesses the likely greenhouse gas (GHG) impacts of the proposals upon the site and surrounding area.

Legislative and Policy Context

Legislation

- The Climate Change Act 2008 (2050 Target Amendment)¹
- Town and Country Planning (EIA) Regulations 2017²

National Planning Policy

- National Planning Policy Framework (NPPF) (DLUHC (formerly MHCLG), 2021)³
- National Planning Practice Guidance (NPPG) (DLUHC (formerly MHCLG), 2021)⁴
- The Building Regulations Part L 2021 Edition⁵

Sub-Regional Planning Policy (where relevant)

- Places for Everyone, Joint Development Plan – Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Tameside, Trafford, Wigan. Publication Stage (GMCA, 2021)⁶

Local Planning Policy

- Manchester's Local Development Framework. Core Strategy Development Plan Document (MCC, 2012)⁷
- Manchester City Council Climate Change Action Plan 2020 – 2025⁸
- Manchester Climate Change Framework 2020 – 2025⁹

¹ UK Climate Change Act 2008 (2050 Target Amendment) (Order 2019)

² Town and Country Planning (EIA) Regulations 2017 (as amended, 2018)

³ Ministry of Housing, Communities & Local Government (MHCLG). (2021). National Planning Policy Framework (NPPF)

⁴ Ministry of Housing, Communities & Local Government (MHCLG). (2021). Planning Practice Guidance (PPG)

⁵ The Building Regulations 2021

⁶ Greater Manchester Combined Authority (GCMA) (2021) Places for Everyone, Joint Development Plan – Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Tameside, Trafford, Wigan. Publication Stage

⁷ Manchester City Council (MCC) (2012). Manchester's Local Development Framework. Core Strategy Development Plan Document

⁸

⁹ Manchester Climate Change Partnership and Manchester Climate Change Agency. (2020). Manchester Climate Change Framework 2020-2025

Guidance documents

- IEMA EIA Guide to Assessing Greenhouse Gas Emissions and Evaluating their Significance 2nd Edition (IEMA, 2022)¹⁰
- BS EN 15978 Sustainability of Construction Works – Assessment of Environmental Performance and Buildings – Calculation Method (BSI, 2011)¹¹
- Royal Institution of Chartered Surveyors (RICS) Whole Life Carbon Assessment for the Built Environment (RICS, 2017)¹²
- UK Green Building Council (UKGBC) Embodied Carbon: Developing a Carbon Brief (UKGBC, 2017)¹³
- Waste and Resource Action Programme (WRAP) Cutting Embodied Carbon in Construction Projects (WRAP, 2011a)¹⁴
- WRAP Procurement Requirements for Carbon Efficiency (WRAP, 2011b)¹⁵
- Greater London Authority Construction Scope 3 (Embodied) Guidance on Greenhouse Gas Accounting and Reporting (GLA, 2013)¹⁶
- Mayor of London Whole Life-Cycle Carbon Assessments Guidance (GLA, 2020)¹⁷
- LETI Embodied Carbon Primer (LETI, 2020)¹⁸

Baseline Conditions

- 5.3. The existing All Saints Library currently occupies the Site. The sources of GHG emissions associated with the existing baseline scenario are those resulting from operational energy use, operational water consumption, and operational transport associated with the existing library uses.

Potential Significant Effects

- 5.4. Table 5.1 presents an overview of the potential significant effects associated with the proposed development, as well as the elements to be scoped in for further assessment.
- 5.5. The following elements will be scoped out as the effects are deemed to be insignificant:
- GHG emissions associated with operational waste;
 - GHG emissions associated with carbon sequestration of green infrastructure; and
 - Operational transport associated with personal travel.

Table 5.1 Identification of likely Significant Effects

Effect	Receptor	Applicable Development Phase (C / O)
Embodied carbon associated with the product stage (lifecycle stages A1-A3 – see Figure 1)	The global atmosphere	C
Embodied carbon associated with the construction process stage (lifecycle stages A4-A5 – see Figure 1)	The global atmosphere	C
Embodied carbon associated with the in-use stage from the Proposed Development (lifecycle stage B1-B5– see Figure 1)	The global atmosphere	O

¹⁰ The institute of Environmental Management and Assessment (IEMA) Environmental Impact Assessment Guide to: Assessing Greenhouse Gas Emissions and Evaluating their Significance, 2nd Edition (2022)

¹¹ British Standards Institution (BSI) (2011) BS EN 15978:2011 Sustainability of Construction Works – Assessment of Environmental Performance of Buildings – Calculation Method

¹² Royal Institution of Chartered Surveyors (RICS). (2014). Methodology to Calculate Embodied Carbon

¹³ UK Green Building Council (UKGBC) Embodied Carbon: Developing a Carbon Brief (UKGBC, 2017)

¹⁴ Waste and Resource Action Programme (WRAP). (2011a). Cutting Embodied Carbon in Construction Projects

¹⁵ Waste and Resource Action Programme (WRAP). (2011a). Procurement Requirements for Carbon Efficiency

¹⁶ Greater London Authority Construction Scope 3 (Embodied) Guidance on Greenhouse Gas Accounting and Reporting (GLA, 2013)

¹⁷ Mayor of London (2020). Whole Life-Cycle Carbon Assessment Guidance

¹⁸ London Energy Transformation Initiative (LETI). (2020) Embodied Carbon Primer

Effect	Receptor	Applicable Development Phase (C / O)
GHG emissions associated with operational energy for the Proposed Development (lifecycle stage B6 – see Figure 1)	The global atmosphere	O
GHG emissions associated with operational water (lifecycle stage B7 – see Figure 1)	The global atmosphere	O
GHG emissions associated with the end-of-life stage (lifecycle stage C1-C4 – see Figure 1)	The global atmosphere	O
GHG emissions associated with operational transport associated with servicing and delivery	The global atmosphere	O

Assessment Methodology

Technical Scope

- 5.6. There is currently no standard methodology for quantifying GHG emissions within EIA. However, best practice will be drawn from the following:
- Institute of Environmental Management and Assessment (IEMA) Guide to Assessing GHG Emissions and Evaluating their Significance (IEMA, 2022)¹⁰; **Error! Bookmark not defined.**
 - Royal Institute of Chartered Surveyors (RICS) Whole Life Carbon Assessment for the Built Environment (2017)¹²; and
 - British Standard EN 15978:2011 Sustainability of construction works. Assessment of environmental performance buildings. Calculation method.¹¹
- 5.7. An assessment period of 60 years is proposed, as per the principles outlined in BS EN 15978. This is based on the typical expected service life of the Proposed Development. The total GHG emissions will be estimated to 60 years after completion of the Proposed Development.
- 5.8. The GHG emissions scope will align with the lifecycle stages defined as modules within BS EN 15978, with building elements included as per guidance within the RICS guidance on Whole Life Carbon Assessment for the Built Environment (2017), as shown in Figure 5.1.

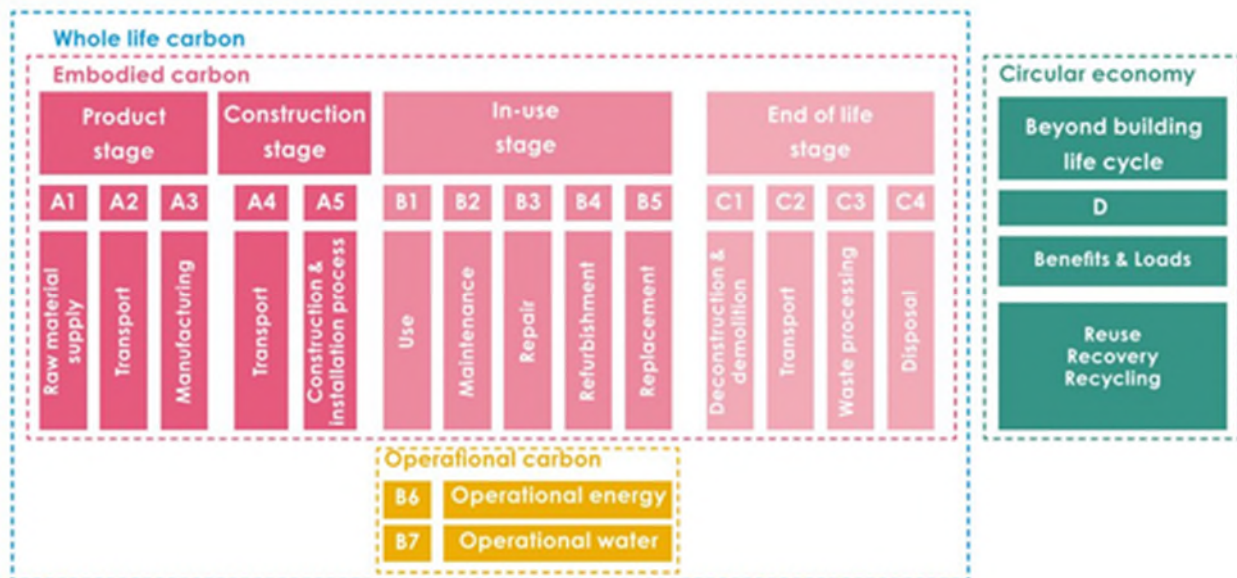


Figure 5.1 Diagram showing the stages of a lifecycle GHG emissions assessment. Diagram based on lifecycle stages set out in BS EN 15978

- 5.9. The assessment of the potential impacts and likely effects as a result of the Proposed Development will take into account the demolition, construction and refurbishment phase and the operational phase. In line with the IEMA (2022) guidance **Error! Bookmark not defined.**¹⁰, the sensitivity of the receptor (i.e., the global atmosphere) in relation to GHG emissions is always considered to be 'high'. The criteria for determining the

significance of effects are outlined in Table 5.2. The significance level attributed to each effect is based on the best practice guidance from IEMA (2022)¹⁰ **Error! Bookmark not defined..**

Table 5.2 Criteria for determining significance of change/impact

Magnitude	Criteria
Major adverse	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 adverse	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 adverse	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 minor adverse effects is fully in line with 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 project with beneficial effects substantially exceeds net zero requirements with a positive climate impact.

Baseline Assessment

- 5.10. The assessment of GHG emissions in the ES will be based on the existing conditions on the Site. The GHG emissions of the Proposed Development will be estimated in the baseline section of the Greenhouse Gas emissions ES Chapter. Where data on current GHG emissions is available, this shall be used to inform the baseline. Where current energy use is not available, estimates of GHG emissions shall be made based on floor areas by use and type with appropriate benchmarks.
- 5.11. A future baseline scenario will be assessed which shall consider how the GHG emissions associated with the current development on the Site are likely to change in the future if the Proposed Development did not come forward. For comparison, this shall consider the same 60-year period that will be used to assess the Proposed Development.

Construction Assessment

- 5.12. GHG emissions associated with the demolition and construction phase will be based on those set out in the Whole Life Carbon Assessment, which shall be submitted alongside the planning application. The Greenhouse Gas ES Chapter will provide a comprehensive summary of the assessment's results in relation to the construction phase of the Proposed Development's greenhouse gas emissions, and assess the significance of effects in line with IEMA (2022)¹⁰ guidance.

Operational Assessment

- 5.13. GHG emissions associated with operational embodied carbon and end-of-life demolition will be based on those set out in the Whole Life Carbon Assessment. Where information is available from the sustainability and energy consultants on likely operational energy, and the utilities engineers on likely operational water, carbon factors shall be applied to determine GHG emissions associated with these sources. Where this information is not available, appropriate published benchmarks shall be used.
- 5.14. Where information on operational transport trip generation is available from the project's transport consultants, carbon factors shall be applied and assumptions on journey distances shall be made.
- 5.15. The Greenhouse Gas ES Chapter will provide a comprehensive summary of the assessment's results in relation to the operational lifecycles of the Proposed Development's greenhouse gas emissions, and assess the significance of effects in line with IEMA (2022)¹⁰ guidance.

Scenarios to be assessed

- 5.16. The baseline consists of the GHG emissions associated with the current site use. The baseline GHG emissions have then been compared to GHG emissions associated with the Proposed Development. The operational lifespan of the Proposed Development is 60 years from completion year. Therefore, when considering the baseline GHG emissions, it has been assumed that the current buildings and uses would continue to function as they currently do for this time period. This is in order to give a reasonable status quo scenario to assess the Proposed Development against.

Climate Change Resilience

- 5.17. A Climate Change Resilience Risk Assessment will form part of the ES chapter. The approach to assessing the potential impact of climate change on the Proposed Development will be undertaken in accordance with IEMA's guidance 'Climate Change Resilience and Adaption' (2020)¹⁹ which presents a framework for the consideration of climate change resilience and adaption in the EIA process.
- 5.18. The ES Chapter will present the review of the future climate change scenario in terms of how the effects on receptors (under the current condition, without climate change) are likely to be different under an alternative future climate regime. In addition, the adaption and resilience measures proposed as part of the description of the Proposed Development shall be identified.

Summary of Assessment of Scope

- 5.19. Table 5.3 shows the Summary of Assessment of Scope.

Table 5.3 Summary of Assessment of Scope

Receptor	Impact	Potential Effect	Scoped In / Out
The global atmosphere	Embodied carbon associated with the product stage (lifecycle stages A1-A3 – see Figure 5.1)	Increasing global Greenhouse Gas Concentrations in the global atmosphere	Scoped In
The global atmosphere	Embodied carbon associated with the construction process stage (lifecycle stages A4-A5 – see Figure 5.1)	Increasing global Greenhouse Gas Concentrations in the global atmosphere	Scoped In
The global atmosphere	Embodied carbon associated with the in-use stage from the Proposed Development (lifecycle stage B1-B5– see Figure 5.1)	Increasing global Greenhouse Gas Concentrations in the global atmosphere	Scoped In
The global atmosphere	GHG emissions associated with operational energy for the Proposed Development (lifecycle stage B6 – see Figure 5.1)	Increasing global Greenhouse Gas Concentrations in the global atmosphere	Scoped In
The global atmosphere	GHG emissions associated with operational water (lifecycle stage B7 – see Figure 5.1)	Increasing global Greenhouse Gas Concentrations in the global atmosphere	Scoped In
The global atmosphere	GHG emissions associated with the end-of-life stage (lifecycle stage C1-C4 – see Figure 5.1)	Increasing global Greenhouse Gas Concentrations in the global atmosphere	Scoped In
The global atmosphere	GHG emissions associated with operational transport associated with servicing and delivery	Increasing global Greenhouse Gas Concentrations in the global atmosphere	Scoped In
The global atmosphere	GHG Emissions associated with operational transport associated with private travel	Increasing global Greenhouse Gas Concentrations in the global atmosphere	Scoped Out. GHG emissions associated with operational transport related to private travel are not likely to be significant.
The global atmosphere	Operational waste generated by the Proposed Development	Increasing global Greenhouse Gas Concentrations in the global atmosphere	Scoped Out. GHG emissions associated with waste management are likely to make up a small proportion of the overall GHG

¹⁹ IEMA (2020) Climate Change Resilience and Adaption, Available: <https://www.iema.net>

Receptor	Impact	Potential Effect	Scoped In / Out
			emissions associated with the Proposed Development, and are not likely to be significant.
The global atmosphere	Carbon sequestration of green infrastructure	Increasing global Greenhouse Gas Concentrations in the global atmosphere	Scoped Out. Effects associated with carbon sequestration of green infrastructure are not likely to be significant.

- 5.20. Unlike other environmental effects discussed in the ES, that have a direct or indirect effect on the Site and local area, effects from GHG emissions are not localised but contribute to the global atmospheric concentration of greenhouse gasses and consequently contribute to the global climate change effect. Therefore, assessing emissions from the Proposed Development in terms of combined effects with other nearby developments is extraneous and immaterial in terms of localised effects. The Proposed Development should be viewed, rather, in the context of developments and construction projects globally as it contributes to a global climatic effect. As there are GHG emissions associated with almost all new developments globally and that we are approaching a global climate tipping point, cumulative effects are considered to be significant.

Townscape and Visual Impact

- 5.21. This Chapter of the ES will be prepared by Planit-IE and will assess the likely Townscape and Visual impacts of the proposals upon the Site and surrounding area.
- 5.22. This chapter will assess the effects of the Proposed Development on townscape character and visual amenity. In particular it will identify and assess the anticipated effects of change resulting from the Proposed Development on the character and features of the townscape; and on people's views and visual amenity within the Townscape and Visual Impact Assessment Study Area.
- 5.23. The chapter will set out the methods used to assess the baseline conditions currently existing at the Site and surroundings, the potential direct and indirect effects of the development arising from the construction stage and completed development, the mitigation measures required to prevent, reduce, or offset the effects and the residual effects.

Legislative and Policy Context

Legislation

- 5.24. European Landscape Convention (Article 1).

National Planning Policy

- 5.25. Paragraph 126 of the NPPF 2021 states:

"The creation of high quality, beautiful and sustainable 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. Being clear about design expectations, and how these will be tested, is essential for achieving this. So too is effective engagement between applicants, communities, local planning authorities and other interests throughout the process."

- 5.26. Paragraph 130, of the NPPF 2021 states:

"Planning policies and decisions should ensure that developments:

- a) 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;*
- b) are visually attractive as a result of good architecture, layout and appropriate and effective landscaping;*
- c) 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);*

- d) 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;*
- e) 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*
- f) 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.”*

Local Planning Policy

- 5.27. The Manchester Local Development Framework, Core Strategy and Development Plan Document set out a number of relevant policies including:
- Policy EN1 Design Principles and Strategic Character Areas - recognises the need to consider the City's heritage and continue the rich pattern of activity in the core area, positively contribute to street level experience and enhance existing and provide new areas of meaningful open space, and the maintenance and improvement of the City's permeability.
 - Policy EN2 Tall Buildings - Sets out a design objective to ensure that tall buildings complement the City's key existing building assets and make a positive contribution to the evolution of a unique, attractive and distinctive Manchester, including to its skyline and approach views.
 - Policy EN3 Heritage – seeks to preserve or enhance the character and setting of heritage assets across the city.
 - Policy EN9 Green Infrastructure – seeks to promote new planting, particularly where this can enhance green links in the urban area.
 - Policy CC6 High Density Development - City Centre development will generally be high-density. It is a location where land should be used to maximise its efficiency. The appropriate scale, massing and height of development in the City Centre will significantly exceed what is appropriate elsewhere in the City. Development will need to have regard to the Council's approach to tall buildings (policy EN2), but any proposals which do not reflect the importance of maximising the development opportunities in the City Centre will only be supported where this accords with wider Core Strategy objectives.
- 5.28. Policy CC9 Design and Heritage - seeks to deliver the highest standards of development in terms of appearance.

Baseline Conditions

- 5.29. An initial baseline assessment has been undertaken to inform this scoping exercise, with the following works completed to confirm or scope out identified townscape and visual receptors and to consider the baseline summer condition. Site visits were carried out in the daytime in mid-July 2023.
- 5.30. The initial review of existing baseline information and preliminary desk-top review included.
- Preparation of fieldwork mapping, including conservation areas, listed/ local heritage elements, movement, green space, building heights and land use.
 - Assessment of areas likely visibility in accordance with GLVIA methodology.
 - Site visit and preliminary photographic and field assessment of potential viewpoints.
 - Collate baseline information through desk study research and field-based survey work, select appropriate landscape and visual receptors and establish their value.

Existing Site today

- 5.31. The Site is located on the southern edge of Manchester City Centre, on the main Oxford Road corridor, and immediately adjacent to the Mancunian Way elevated inner ring road. The Site is currently occupied by the existing MMU Library building and All Saints Park and is surrounded by existing MMU faculty buildings some of which have heritage value and are Grade II and Grade II* Listed. A mix of

wider land uses line Oxford Road that serve the significant student population in the area, including food outlets, shops and leisure, with building heights ranging from 2 to 8 storeys. The wider townscape also includes a variety of diverse city centre uses, main road arterial routes and residential areas.

- 5.32. All Saints Park is a large and much valued public green space within the area and landmark along the road corridor with a traditional Victorian geometric layout, large mature trees and a central seating space. Further green spaces are generally smaller pocket parks or large areas of green verge adjacent to roads. Gartside Gardens is a larger park located to the east of the Site with wider community and recreational facilities.
- 5.33. Oxford Road is a key cycling and walking route into the City and categorised as a Busy-Beeway with segregated cycle provision. The elevated Mancunian Way forms a gateway into the city immediately adjacent to the Site.
- 5.34. The landform within the Site and surrounding area is relatively flat with the average elevation being approximately 35-40mAOD. Views to the Site from the surrounding areas are predominantly close range from the immediate surrounding streets and spaces, with limited long-range views due to the flat topography and intervening built form and tree cover.

Scope of Assessment

Identification of Effect/s which are Not Significant

- 5.35. The tables below summarise the townscape receptors that been scoped out of the Townscape and Visual Impact Assessment.

Table 5.4 Non Significant Effects

Effect	Change to site levels	Applicable Development Phase (C / O)	C/O	Receptor	Topography/Site Levels
Discussion of Effect					
Likely minor modification of existing site levels anticipated immediately around the Proposed Development – no major remodelling of ground levels and profile anticipated.					
Mitigation Committed to in order to Avoid or Reduce Effect					
Primary Mitigation - Scheme designed to minimise level changes and facilitate access to All Saints Park, Street frontage and surrounding University campus.					
Concluding Statement					
Due to the likely low sensitivity of the receptor (ground levels already subject to considerable change within the area) and the likely negligible/ minor magnitude of change envisaged, this receptor is scoped out of the assessment.					

Effect	Potential changes to Land Use within the Site	Applicable Development Phase (C / O)	C/O	Receptor	Land Uses
Discussion of Effect					

The proposed scheme replaces 'like for like', an existing Library faculty use within the University Campus, and All Saints Park will continue to be a local, public green space.
Mitigation Committed to in order to Avoid or Reduce Effect
n/a
Concluding Statement
There is no direct impact to this receptor type as proposed uses are consistent with the existing Site. The sensitivity of the receptor is likely to be low (uses already present on Site) and the likely negligible/ minor magnitude of change envisaged, this receptor is scoped out of the assessment.

Identification of Effect/s which are Likely to be Significant.

5.36. The following sensitive receptors have been identified and will be considered within the assessment:

- The local townscape character and its key components, including changes to townscape character areas, urban grain, building heights, environmental designations& public open space and movement and linkages.
- Site character – the Site as a townscape receptor (as defined by the red line boundary).
- Visual receptors, including local residents, users of public open space, visitors to heritage assets, communities where views contribute to the townscape setting enjoyed by residents, users of public footpaths, users of the strategic movement network, and employees at their place of work.

Table 5.5 Likely Significant Effects

Effect	Receptor	Applicable Development Phase (C / O)
Changes to townscape character areas within the site context. Consolidation of existing university campus character.	The Site and wider townscape character areas.	[C / O]
Changes to urban grain. Consolidation of street frontage and structure of university complex.	The Site (direct effect) and local site context (potential indirect effect).	[C / O]
Changes to building heights. Proposed height in keeping with prominent Oxford Road frontage.	The Site (direct effect) and local site context (potential indirect effect).	[C / O]
Changes to movement and linkages as a townscape effect. The Proposed Development fits with and enhances the existing pedestrian and vehicular route network.	The Site (direct effect) and routes within local site context (potential indirect effect).	[C / O]
Changes to environmental designations and public open space Proposed development enhances pedestrian realm, public spaces and park environment.	The Site (direct effect) and routes within local site context (potential indirect effect).	[C / O]

Effect	Receptor	Applicable Development Phase (C / O)
Changes to site character Supports development of the wider university campus – addresses existing poor site conditions.	The Site.	[C / O]
Changes to the character and amenity of views	Representative views shown in Appendix A: Viewpoints and described in the table below.	[C / O]

- 5.37. A representative selection of views suitable to illustrate the existing character of the study area and the potential visual effects on receptors as a result of the Proposed Development have been proposed for inclusion within the TVIA.

Table 5.6 Viewpoint assessment

Viewpoints	Rationale for selection
Viewpoint 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.	Open view over park and Site beyond – key pedestrian crossing point with high number of viewers. The Proposed Development will be viewed as part of the overall park setting and in context of the surrounding heritage buildings.
Viewpoint 2: View from pedestrian footpath within All Saints Park looking north to Site. Within setting of Grade II listed Osmond, Righton & Grosvenor Buildings.	Framed view through centre of park and over seating area – potentially high number of viewers where views out are part of the visitor experience. Proposed building will form a backdrop the view.
Viewpoint 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.	Mid-range framed view along Oxford Road corridor, with potentially high number of viewers at main faculty building entrance. Proposed building likely to be prominent within the view as a landmark structure on the road corridor.
Viewpoint 4: View from footway on eastern side of Oxford Road looking south - adjacent to Manchester Technology Centre and Circle Square entrances.	Close range view from Oxford Road looking past the elevated Mancunian Way, with the Proposed building prominent on the road frontage. Potentially very high number of viewers on this popular pedestrian route to the City Centre.
Viewpoint 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.	Mid-range framed view along Oxford Road corridor with a potentially high number of viewers at this main crossing point. Views here are focussed along the roadway, with the Proposed building forming a new, taller frontage element. View is part of the context of adjacent heritage buildings.

Viewpoints	Rationale for selection
Viewpoint 6: View from footway adjacent to Cambridge Street Junction & Mancunian Way looking east to Site.	Open view from edge of the Mancunian Way with the Proposed building forming a prominent new structure on the inner ring road frontage. Potentially very high number of viewers on the major junction and ring road.
Viewpoint 7: View from pedestrian walkway in Gartside Park adjacent to western entrance point and seating - looking west to Site.	Mid-range view from public open space with the Proposed building forming part of the City Skyline. Potentially moderate number of viewers where wider views from the park and seating spaces form part of the visitor experience.
Viewpoint 8: View from pedestrian walkway/ green verge adjacent to Mancroft Walk looking west to Site.	Open view from edge of the Mancunian Way with the Proposed building forming a prominent new structure on the inner ring road frontage. Potentially very high number of viewers on the major junction and ring road.

Assessment Methodology for Likely Significant Effects

- 5.38. The Townscape and Visual Impact Assessment will be carried out with reference to the Guidelines for Landscape & Visual Impact Assessment, 3rd Edition, 2013 (referred to hereafter as “the Guidelines”)²⁰ by Planit-IE Ltd, a registered practice of the Landscape Institute with considerable experience in landscape and visual assessment.

Assessment Criteria

- 5.39. Based on the likely effects identified, the following scenarios are proposed for assessment:
- Construction and Demolition stage activities;
 - Scenario 1: Existing site (baseline) with committed developments;
 - Scenario 2: Scenario 1 plus Proposed Development;
 - Scenario 3: Scenario 2 plus mitigation (if applicable);

Assessment Approach

- 5.40. The methodology will be collated into a tabulated format where possible to provide structure for a consistent and methodical approach. Desk-based studies will be carried out to collate and map baseline townscape information, and a review of relevant policy and guidance will be used to inform the assessment.
- 5.41. In order to provide the most comprehensive, rounded and objective view of the Townscape and Visual Impacts of the Proposed Development, assessed effects will be agreed following round-table review by a team of individual assessors.

Methodology for Determining Significance

²⁰ Landscape Institute and IEMA, (2013). Guidelines for Landscape & Visual Impact Assessment, 3rd Edition. Routledge.

- 5.42. The significance of an environmental impact is determined by the interaction of magnitude and sensitivity, whereby the impacts can be positive or negative. The impact Significance Matrix is set out in final table below and is used to guide the assessment of the significance of both townscape and visual effects.
- 5.43. The sensitivity of a receptor is based on relative importance of the receptor using the scale in the table below:

Table 5.7 Receptors

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.
Moderate	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 no local importance.

Methodology for Determining Magnitude

- 5.44. 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 element as set out in the scale in table below.

Table 5.8 Assessing Impact

Magnitude of Impact	Criteria for assessing impact
Major	Total loss or major/substantial alteration to key element/features of the baseline (pre-development) 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 circumstance/situation.

Impact Significance Matrix

- 5.45. The significance of an environmental impact is determined by the interaction of magnitude and sensitivity, whereby the impacts can be positive or negative. The impact Significance Matrix is set out in the table below.
- 5.46. The assessment of likely significant effects to sensitive receptors will consider the sensitivity of the receptor (on a scale of high, moderate, low) and the magnitude of change (on a scale of major, moderate, minor and negligible) to determine the level of effect on a scale of major, moderate, minor and not significant. Significant effects will be determined following this through professional judgment.

Table 5.9 Impact Significance

Magnitude	High	Sensitivity Moderate	Low
Major	Major Adverse/Beneficial	Major - Moderate Adverse/Beneficial	Moderate - Minor Adverse/Beneficial
Moderate	Major Adverse/Beneficial	Moderate Adverse/Beneficial	Minor Adverse/Beneficial
Minor	Minor Adverse/Beneficial	Minor Adverse/Beneficial	Not Significant
Negligible	Not Significant	Not Significant	Not Significant

- 5.47. 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. The table has regard to guidance in the Guidelines for Landscape and Visual Impact Assessment, Third Edition, 2013, at paragraph 5.56, page 92 (significance of landscape effects) and paragraph 6.44, page 116 (significance of visual effects).
- 5.48. For the purposes of this Townscape and Visual Impact Assessment, all effects greater than moderate are considered to be Significant in the meaning of EIA Regulations (2017).

Cumulative

- 5.49. The Chapter will include 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 other developments (scenario 1) and then 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.

Photography and Photomontage

- 5.50. A Principal Viewpoints plan has been produced as part of this scoping report. The viewpoints were selected through a process of desktop survey and site knowledge. A basic 3D block model reflecting the proposed height of the development was put into Google Earth and a basic Zone of Visual Influence was created using Google viewshed. The viewshed highlights areas in green that have the potential for a visual relationship with the site, taking into consideration factors such as surrounding building heights and topography. The viewshed has been used to inform viewpoint selection, in addition to detailed study of urban form, topography, site knowledge and professional experience.
- 5.51. A total of 8 viewpoints have been selected and are considered representative viewpoints from key visual receptors. Viewpoints were excluded where there is likely to be no visual impact.
- 5.52. Visually verified photomontages will be produced by Virtual Planit, a professional visualisation studio with extensive experience in the production of photomontages, in accordance with the Landscape Institute's Technical Guidance Note 06/09 (2019) *Visual Representation of Development Proposals*²¹. The Photomontages will accurately reflect building height and massing and architectural detail as well as public realm where relevant. This will represent 'worst case scenario', in accordance with the Guidelines.

Limitations and Assumptions

- 5.53. To ensure transparency within the EIA process, the following limitations and assumptions have been identified:
- The assessment will rely on available data, and best endeavours will be made to ensure that the data are accurate and up to date. It is assumed that OS mapping information, topographic and 3D data and Historic England heritage mapping information are all up to date.
 - The GLVIA methodology provides a robust and transparent process for assessment of townscape and visual effects and is used alongside photomontages produced by the scheme Architect which provide a high level of detail – but are not verified images.
 - Significant effects will be determined through professional judgment, carried out by a team of assessors to provide scrutiny where this is relied upon.

²¹ Landscape Institute Technical Guidance Note 06/09 (2019). *Visual Representation of Development Proposals*. [Online] accessed via: <https://www.landscapeinstitute.org/visualisation/>.

- Due to timing of the assessment, photomontages will be based on summer photography with trees in full leaf. Where this is considered to be relevant in terms of screening to the Proposed Development, the potential for additional winter effects will be noted and added to the assessment.

Townscape & Visual Impact Assessment: Key Viewpoints

Figure 1: Viewshed Analysis

Plan 11-E The Library Transformation Project: Views Locations

Google Viewshed Plan



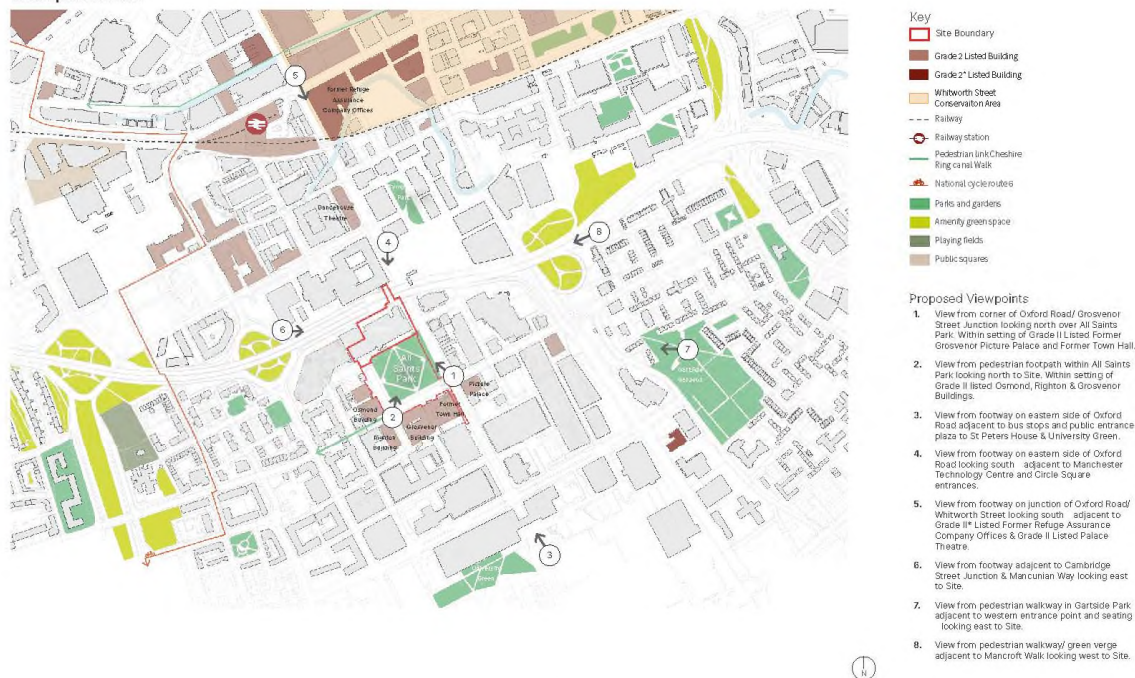
Indicates a 62m tall structure located on the Oxford Road Frontage
Green shading indicates potential visibility in the surrounding context.

- 6 Proposed Viewpoints
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.
 2. View from pedestrian footpath within All Saints Park looking north to Site. Within setting of Grade II listed Osmond, Rington & Grosvenor Buildings.
 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.
 4. View from footway on eastern side of Oxford Road looking south adjacent to Manchester Technology Centre and Circle Square entrances.
 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.
 6. View from footway adjacent to Cambridge Street Junction & Mancunian Way looking east to Site.
 7. View from pedestrian walkway in Gartside Park adjacent to western entrance point and seating looking east to Site.
 8. View from pedestrian walkway/ green verge adjacent to Mancroft Walk looking west to Site.

Figure 2: Viewpoint Location & Description

Plan: IE The Library Transformation Project: Views Locations

Viewpoint Plan



Potential Significant Effects

5.54. The potential for the Proposed Development to cause change to the townscape and visual baseline will be actively considered throughout the preparation of proposals to avoid, or reduce the level of, such change. It is, however, anticipated that the following landscape and visual effects will occur during the construction and operation of the development:

- Effects on the townscape character areas (including neighbouring areas from which the proposed development will be visible)
- Effects on townscape features and elements
- Effects on views experienced by people within the study area (day and night)

5.55. The assessment will also consider cumulative visual effects and reference existing committed developments within the adjacent context. Given the built up nature of the surrounding context it seems appropriate to take into account buildings within 250m of the site. Committed schemes beyond that will be seen within the wider context of the City and are not deemed to contribute to the setting of this scheme.

Assessment Methodology

Technical Scope

5.56. This sets out the methodology adopted within this Townscape and Visual Assessment (TVA) to assess the townscape and visual effects of the proposed intervention. The methodology is informed by guidance contained within;

- Guidelines for Landscape and Visual Impact Assessment (The Landscape Institute and Institute of Environmental Assessment, 3rd Edition, 2013), often referred to as 'GLVIA 3'. Note: Terminology within

GLVIA 3 (e.g. susceptibility) that is referred to within this methodology is recognised as being interchangeable between 'landscape' and 'townscape' assessment.

- Townscape Character Assessment Technical Information Note 05/2017 - Revised April 2018 (The Landscape Institute).
- As defined within GLVIA 3 'Townscape' refers to areas where the built environment is dominant and includes buildings, the relationship between them, different types of urban spaces and relationship between buildings and space. Townscape also reflects the relationship between people and place.
- Townscape and visual matters are separate, although closely related and interlinked issues, and will be dealt with as such throughout the TVA.

Baseline Assessment

- 5.57. The initial step of the TVA will be to review the existing townscape and visual resource in the vicinity of the Proposed Development, known as the 'baseline' townscape and visual conditions. This is a process of gathering information, as part of a desk study and subsequent field survey work, to understand features and characteristics of the townscape, the way it is experienced, it's quality and value or importance of the visual resources in the vicinity of the proposed intervention. The data collected forms the basis from which the townscape and visual effects of the intervention are identified and assessed.
- 5.58. The baseline study records the existing elements that make up the townscape in the study area and will include:
- Urban structure and built form, including urban grain, scale, massing, density and building height;
 - Heritage assets, including listed buildings and Conservation Areas;
 - Green infrastructure and public realm;
 - Movement and connectivity, including legibility and permeability, public rights of way and classifications (A roads, B roads etc);
 - The aesthetic and perceptual aspects of the townscape: Scale, complexity, openness, enclosure and activity;
 - The condition of the townscape, i.e. the state of an individual area; and
 - Reference to policy or designations as an indicator of recognised value, including specific features or characteristics that justify the designation of the area.
 - This informs a concise description of the existing character of the intervention site and its surrounding townscape context and enables the classification of the townscape into distinct character areas or types, which share common features and characteristics.
- 5.59. The visual baseline study records and establishes the following:
- The area in which the intervention may be visible. This is identified by a process of map interpretation and / or digital mapping to construct a map showing the area from which the proposed intervention may theoretically be visible, or its Zone of Theoretical Visibility (ZTV).
 - The different types of people or townscape settings (receptors) which may experience views of the proposed intervention and the viewpoints where they will be affected.
 - The nature of the views at the viewpoint.

Construction Assessment

- 5.60. Townscape and visual effects during the construction phase are generally unlikely to be greater than those for the Proposed Development on completion, and will be of a temporary duration. It is assumed that a tower crane will be required and, due to its height, it is likely that the size of the area experiencing townscape and visual effects in the short term through the presence of the crane will be larger than for the completed development.

Operational Assessment

- 5.61. The operational phase of the development is likely to result in some adverse townscape and visual effects. Lighting of the development will cause night-time effects. These are, however, unlikely to be uncharacteristic of the city centre context, and will be seen in the context of highway and commercial lighting in the immediate vicinity.

Scenarios to be assessed

- 5.62. A series of committed developments will be taken into account as part of the cumulative assessment.
- 5.63. Cumulative townscape effects are defined as effects that can impact on either the physical fabric or character of the townscape or any special values attached to it (GLVIA 3 Chapter 7.3).
- 5.64. Cumulative visual effects are defined as effects that can be caused by combined visibility, which occurs where the observer is able to see two more developments from one viewpoint and / or sequential effects which over when the observer has to move another viewpoint to see different developments (GLVIA 3 Chapter 7.3). Sequential effects may be assessed for travel along regularly used routes such as major roads or popular paths.
- 5.65. The approach to assessing cumulative effects is guided by the same principles as to the approach to the initial project assessment and considers a combination of susceptibility and value (sensitivity) and magnitude of change to determine the combined effects.
- 5.66. The purpose of cumulative townscape and visual effects is to identify additional changes caused by the proposed intervention in addition to other similar developments, or as the combined effect of a set of developments taken together.
- 5.67. The assessment of cumulative effects in the Chapter will focus specifically on the effects of the proposed intervention in addition to other developments of a similar scale and type within a distance radius defined and justified within the main report. This is based upon a ZTV (Zone of Theoretical Visibility) exercise. Beyond the extent of the defined radius, it is considered that there will be no likely perceivable change to views of the proposed intervention on Site, and no likely cumulative townscape effects in relation to the proposed intervention on Site.

Summary of Assessment of Scope

- 5.68. This chapter will assess the effects of the Proposed Development on townscape character and visual amenity. In particular it will identify and assess the anticipated effects of change resulting from the Proposed Development on the character and features of the townscape; and on people's views and visual amenity within the Townscape and Visual Impact Assessment Study Area.

Wind Microclimate

Introduction

- 5.69. This Chapter of the ES will be prepared by BuroHappold Ltd and assesses the likely Wind microclimate impacts of the proposals upon the Site and surrounding area.

Legislative and Policy Context

- National Planning Policy Framework (NPPF)
- Manchester City Council (MCC) Policy EN2

National Planning Policy

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

- 5.71. The UK wide National Planning Policy Framework (NPPF) came into force in March 2012, and was updated in February 2019. 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 127: "...using the arrangement of streets, spaces, building types and materials to create attractive, welcoming and distinctive places to live, work and visit...".
- 5.72. The impact of environmental wind on pedestrian spaces and the subsequent suitability of these spaces for planned usage are 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.

Sub-Regional Planning Policy (where relevant)

- 5.73. 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 Planning Policy

- 5.74. 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. Manchester City Council (MCC) refers to the design of tall buildings, for example potential effects on microclimate that can be avoided. Reference can be found in Manchester's Local Development Framework, Core Strategy Development Plan Document, July 2012.
- 5.75. 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".
- 5.76. 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".

Baseline Conditions

- 5.77. The Proposed Development is bordered by various landmarks: the A57(M) Mancunian Way Road to the north, Oxford Road to the east, All Saints Park to the south, and Commercial buildings, including other Manchester Metropolitan University (MMU) buildings, to the west.
- 5.78. The Site is situated in an existing context where the A57(M) Mancunian Way Road partially shields it from the north. The existing Library is somewhat exposed to the prevailing southerly winds, while open space with trees below building height lies to the south. Developments to the west and east are of similar height and will provide wind protection.

Potential Significant Effects

- 5.79. A safe and comfortable wind climate is integral to the success of any development. New buildings can generate wind acceleration at ground level which could result in discomfort to pedestrians. An assessment of the wind microclimate created by the Proposed Development is necessary to identify any potential impacts that the Proposed Development may have on sensitive receptors adjacent to and users of the Site during both the construction and operational phases.
- 5.80. To evaluate the impact of the Proposed Development in future surroundings, an illustrative scenario of wind conditions will be assessed. This assessment will consider the combined effects of the Proposed Development with the cumulative surroundings, as listed in the Committed Developments in Appendix B.

Assessment Methodology

Technical Scope

- 5.81. There are no national codes of practice or legislative policies relating to the assessment of environmental wind flows in the built environment. The impact of environmental wind on pedestrian spaces and the subsequent suitability of these spaces for planned usage are described by the Lawson Comfort Criteria (LCC), which are recognised by local planning authorities as a suitable benchmark for wind assessments. The LCC will be applied in the wind assessment for the Proposed Development.
- 5.82. The closest and most suitable wind data provided by the Met Office will be obtained and a Wind Frequency Analysis will be completed. This will be applied to the quantitative assessment of the wind effects likely to occur due to the inclusion of the proposed buildings. The CFD assessment will be used to assess the wind microclimate of the Site and its surroundings and will include topographical and geometrical data will be used.
- 5.83. A CFD assessment will be carried out based on a RANS simulation. The RANS simulations do not model the effects of gusts, however, a mathematical approximation will be used to account for it. The use of CFD is accurate for the assessment of pedestrian comfort and safety.
- 5.84. The evaluation criteria that will be used will be based on the LCC to assess the level of comfort for both existing sensitive receptors and new residential uses and public routes and spaces proposed as part of the Proposed Development.

Baseline Assessment

- 5.85. In the current context, the existing site is subject to potential wind impacts that will be quantitatively evaluated. Windy areas are anticipated to occur north of the Site along the Mancunian Way and south of the site, where the Library's height could lead to corner wind acceleration. This is likely to result in wind reattachment to both the south and north of the Site.

Construction Assessment

- 5.86. Temporal effects will change depending on the phase of construction. Due consideration will be given to the temporary hoarding during the construction phase to reduce wind acceleration on site.

Operational Assessment

- 5.87. New buildings associated with the Proposed Development could generate wind acceleration at ground level, which could cause discomfort to pedestrians (e.g. along public routes and within areas of public realm). The exposed nature of parts of the Proposed Development will have the potential to generate wind acceleration which could have adverse impacts on sensitive receptors.

Scenarios to be assessed

- Scenario 1: Existing site in the context of existing surroundings (baseline)
- Scenario 2: Proposed Development in the context of existing surroundings (Proposed Development)
- Scenario 3: Proposed Development in the context of future existing surroundings (cumulative).

Summary of Assessment of Scope

- 5.88. The investigation of suitable conditions for the planned activities with the introduction of the Proposed Development to the Site will involve a combination of statistical models of meteorological wind frequencies and computational fluid dynamics simulations for each wind direction. This approach aims to assess exceedances at comfort category thresholds using the Lawson Comfort Criteria (LCC).

Methodology for Determining Impact Magnitude

Magnitude of Impact	Criteria for assessing impact
Major	Total loss or major/substantial alteration to key element/features of the baseline (pre-development) 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 circumstance/situation.

The sensitivity of a receptor is based on relative importance of the receptor using the scale in the table below:

Methodology for Determining 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.
Moderate	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 no local importance.

The significance of an environmental impact is determined by the interaction of magnitude and sensitivity, whereby the impacts can be positive or negative. The impact Significance Matrix is set out in the table below.

Impact Significance Matrix

Magnitude	High	Sensitivity Moderate	Low
Major	Major Adverse/Beneficial	Major - Moderate Adverse -Beneficial	Moderate - Minor Adverse -Beneficial
Moderate	Major Adverse/Beneficial	Moderate Adverse – Beneficial	Minor Adverse/Beneficial
Minor	Minor Adverse/Beneficial	Minor Adverse/Beneficial	negligible
Negligible	Negligible	Negligible	Negligible

Appendix A – Site Location Plan

Appendix B— List of Committed Developments

	Name	LPA Planning Ref.	Description of Development	Distance from Site (metres)	Application Status
Baseline					
1	All Saints Park	128485/FO/2020	Construction of four residential buildings, ancillary amenity building for residents accommodating a tennis court, swimming pool and gym facilities (Use Class C3), ground floor retail units (Use Classes A1, A2, or A3), amenity space for residents within residential buildings, new public realm and landscaping, basement car parking and related highway, access, servicing, engineering and associated works.	85 m	BASELINE Complete, although not all approved landscaping has been delivered.
2	Metropolitan University Science and Engineering Building	125799/FO/2019	Demolition of existing John Dalton West Building and associated structures, and erection of a new 7 storey education building (Use Class D1) for the Faculty of Science and Engineering (comprising teaching and research spaces, academic offices, social learning areas, catering/kitchen facilities and an energy centre), physical connections to and external refurbishment of the John Dalton Tower, hard and soft landscaping works, car and cycle parking and associated works.	200 m	BASELINE Under construction. John Dalton West has now been demolished and the site has been cleared. Access road and sewer diversion works within Chester Street have been completed.
3	Number 3 Circle Square	134288/FO/2022	Erection of 15 storey building comprising office space (Use Class E(g)(i)) and ancillary flexible commercial uses (Use Class E), rooftop terrace, highway works, landscaping, and other associated works.	245 m	BASELINE Latest planning application approved in November 2022. Construction began in January 2023.
Cumulative					
4	137 Oxford Road	128837/FO/2020	Erection of a single storey roof extension to create one x four bedroom apartment (Use Class C3), with associated external works.	128 m	CUMULATIVE Planning application approved in June 2022. Works on-site have not commenced and no Conditions have been discharged.

5	Circle Square Buildings 1A and 1B	N/A – application not submitted.	N/A – application not submitted.	120 m	CUMULATIVE Currently Manchester Technology Centre / Hatch. Earmarked for approximately 480,000 sq ft of commercial floorspace.
6	Cambridge Circus	N/A – application not submitted.	N/A – application not submitted.	177 m	CUMULATIVE Redevelopment of land in the centre of Cambridge Street roundabout for student or residential. Early stage proposals.

- 250m buffer

1

All Saints Park

2

Metropolitan University Science and Engineering Building

3

Number 3 Circle Square

4

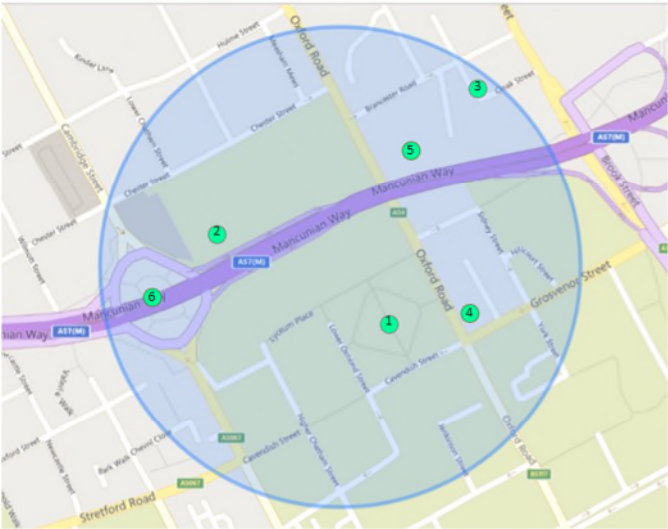
137 Oxford Road

5

Circle Square Buildings 1A and 1B

6

Cambridge Circus



Appendix C – Phase 1 Ecology Report



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