



Environmental Statement Volume 1: Non-Technical Summary

Upper Brook Street Masterplan – McLaren / Kadans

July 2023

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For and on behalf of Avison Young

1. Introduction

- 1.1 McLaren Property Ltd. and Kadans Science Partner (hereafter referred to as the 'Applicant') is seeking to obtain full planning permission for a Sci-Tech and purpose-built student accommodation (PBSA) scheme on previously developed land that forms Upper Brook Street Masterplan – McLaren / Kadans (hereafter referred to as the 'Site').
- 1.2 The Site is located within the administrative authority of Manchester City Council (MCC) in the ward of Ardwick.
- 1.3 The existing Site comprises of a former Citroën car dealership which is accessed from both Upper Brook Street (UBS) to the west and Kincardine Road to the east and the former Elizabeth Yarwood Court residential complex, which is accessed from Kincardine Road to the east of the Site.
- 1.4 The Applicant's proposal (hereafter referred to as the 'Proposed Development') would provide approximately 13,800m² of combined laboratory and office space along with a ground floor publicly accessible café, meeting room suites throughout the building, and a secure cycle store and cycle changing. The building massing is split into a low level 6 storey block to Kincardine Road, jumping up to 9 storeys at Upper Brook Street. The Site would also provide 737 student bedrooms, student amenities and commercial / community spaces. The proposed PBSA scheme is arranged in two parallel building blocks which are linked on the ground floor to form spaces for indoor and outdoor student amenities. The block facing Upper Brook Street has 23 storeys and the block facing Kincardine Road has 9 storeys.
- 1.5 As part of the full planning application, a voluntary Environmental Impact Assessment (EIA) was undertaken in relation to those environmental effects which, in the (scoping) opinion of MCC, would warrant full assessments as part of the EIA process.
- 1.6 EIA is a formal procedure that must be followed for certain types and scales of development, where the likely significant environmental effects of a development are systematically assessed and reported. The purpose is to ensure that appropriate information regarding the likely significant effects of the development in question is available for consideration by the relevant Local Planning Authority (LPA), in this case MCC, consultees and the public, and that the LPA have this information prior to determining the application for development. The EIA process can also identify ways in which the Development can be modified, or likely significant adverse effects mitigated, so to reduce or remove likely significant effects and to create and enhance beneficial effects. The legislation relevant to EIA is the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations, 2017 (as amended) (the 'EIA Regulations'). The findings of the EIA are presented within an Environmental Statement (ES), of which this document provides a non-technical summary of.

2. The Project Team

- 2.1 The Applicant appointed the Project Team bring forward the redevelopment of the Site and prepare the planning application. **Table 1** confirms the members of the Project Team and their role in preparing the planning application, including the ES.

Table 1: The Project Team

Discipline	Company
Client Team	
Applicant	McLaren Property Ltd.
	Kadans Science Partner
Design Team	
Architect	Sheppard Robson
Landscape Architect	Re:form Landscape Architecture
EIA Team	
Planning and EIA Coordination	Avison Young
Townscape, Visual and Built Heritage	Donald Insall Associates
Socio-economics	Brookdale Consulting
Wind Microclimate	Wilde Consulting Engineers
Daylight, Sunlight and Overshadowing	GIA Surveyors
Climate Change	Cundall
Transportation	Civic Engineers

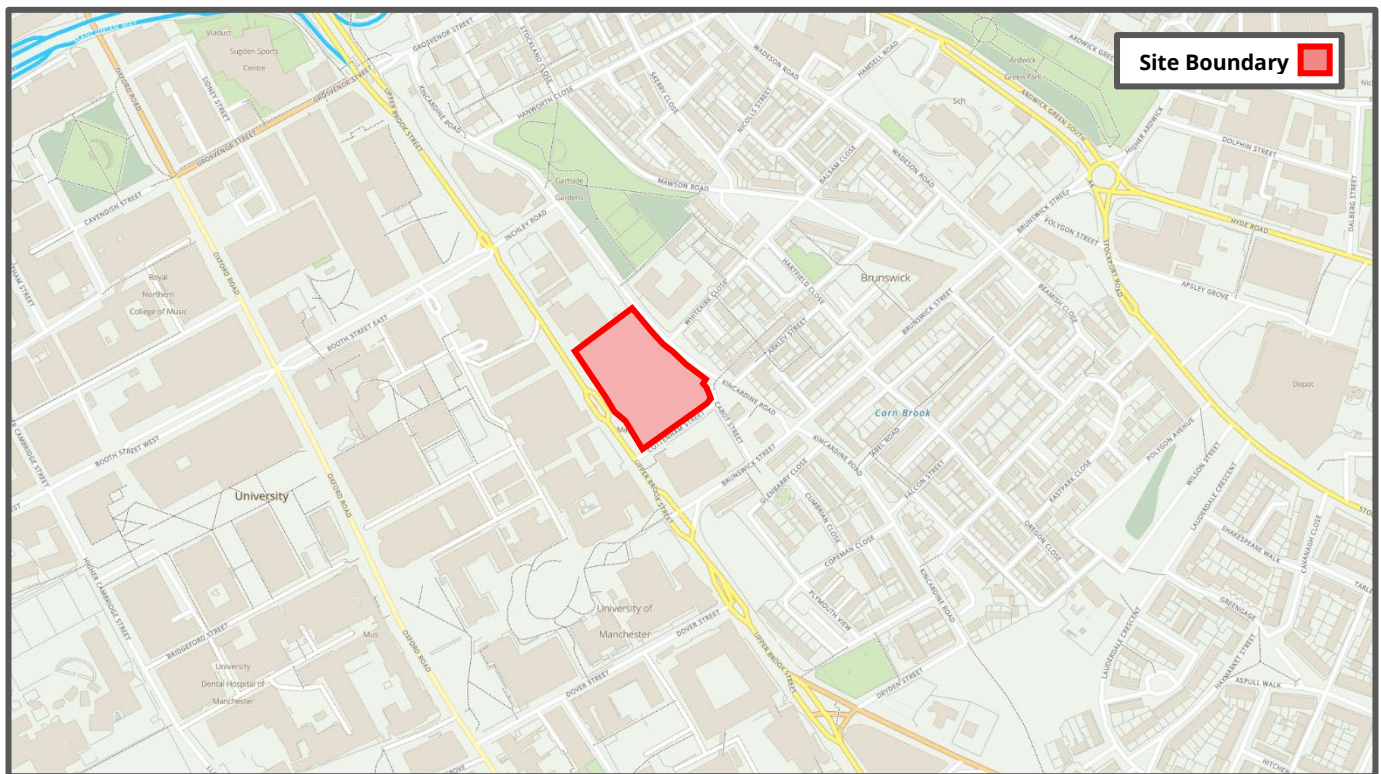
3. The Existing Site and its Surrounds

3.1 A plan showing the location of the Site is shown in **Figure 1** and an aerial photograph of the Site as it currently exists is shown in **Figure 2**.

3.2 The Site is broadly bound by:

- A vacant single-storey commercial building and the Kincardine Court student residential building with vehicle parking to the north;
- Kincardine Road to the east, with a residential area – Brunswick – located beyond;
- Cottenham Street to the south, with a two-storey commercial building occupied by the Tai Wu restaurant and W.H. Lung Supermarket located beyond;
- Upper Brook Street (A34) to the west, beyond which lies a number of buildings belonging to the University of Manchester including the Alan Turning Building and the Henry Royce Institute;
- The Grade II* listed 'Former Unitarian Chapel' which now functions as student accommodation.

Figure 1: Location of the Site



- 3.3 The existing Site is partially in use as a temporary paid car park. The Site is the former Citroën dealership showroom with areas of associated hardstanding. The remainder of the Site comprises of the former Elizabeth Yarwood Court residential complex, which is accessed from Kincardine Road to the east of the Site.

Figure 2: Aerial Photo of the Site



Surrounding the Site

- 3.4 To the north is open / green space (Gartside Gardens) which includes a children's play area. The Brunswick Neighbourhood is located to the north and to the east of the Site, this is comprised of 2 to 4 storey residential properties. The University of Manchester is located to the south and west of the Site.
- 3.5 **Volume 2: Main Text, Chapter 3: Site Description** provides additional information on the Site, surroundings and existing land uses and activities.
- 3.6 As required by the EIA Regulations, consideration was given to if and how the environmental baseline conditions would change should the Development not be implemented for those topics scoped into the EIA. It would be expected that the existing on-Site buildings and activities would remain for the foreseeable future in this situation.
- 3.7 In relation to daylight, sunlight, overshadowing and solar glare, the existing level of daylight and sunlight to surrounding residential properties would remain as per the present day, as would levels of overshadowing to amenity spaces surrounding the Site. The presence of relevant Cumulative Schemes would result in effects on levels of daylight, sunlight, overshadowing and solar glare regardless of whether the Development was implemented.

- 3.8 In relation to Heritage, the existing built form and massing of the Site would remain. Accordingly, the existing heritage conditions would remain as per the present day. As such, the landscape and visual conditions would remain as present and there would be no effects on landscape characteristics or visual amenity. The presence of the neighbouring Cumulative Scheme, referred to as Upper Brook Street Masterplan – PAG / Moda Living, would give rise to changes in the heritage conditions around the Site, should it gain planning consent.
- 3.9 In relation to noise and vibration, should redevelopment not occur at the Site, due to the vacant nature of the Site, the existing contribution to ambient noise is minimal. The local ambient noise environment would continue to be dominated by road traffic on the surrounding road network.
- 3.10 In relation to socio-economics the evolution of the baseline conditions at the wider local, district and regional level could be expected to continue to evolve, as other Cumulative Schemes are completed, in line with relevant policy. As such, over the long-term and beyond the Site, opportunities would exist for the provision of new residential land uses and other economic benefits.
- 3.11 In relation to wind microclimate, with no Development the existing built form and massing of the Site would remain. Accordingly, the wind microclimate of the Site and its surrounds would also remain as per the present day.
- 3.12 In relation to daylight, sunlight, overshadowing and solar glare, heritage, noise and vibration, socio-economics, wind microclimate, and townscape and visual, should redevelopment not occur at the Site the existing built form, massing and vacant use of the Site would remain. Accordingly, the existing conditions would remain as per the present day for all of these aspects.
- 3.13 For the topics in the above paragraph, the development of the Cumulative Schemes would result in changes to the surroundings over the medium to long term.

4. The Proposed Development

- 4.1 The Proposed Development forms part of a wider Oxford Road Strategic Regeneration Framework (SRF) Area along Upper Brook Street which is identified as contributing to science, research and innovation. This SRF area also includes sites to the north and south of the Site along Upper Brook Street. The area to the north of the Site is referred to as the Upper Brook Street Masterplan – PAG / Moda Living. Although part of the SRF area the Proposed Development will be delivered separately from the Upper Brook Street Masterplan – PAG / Moda Living scheme.
- 4.2 The planning application includes a set of plans, elevational drawings and other information drawn in detail, forming a set of planning application drawings, which have been submitted to MCC for approval. **Volume 2: Main Text, Chapter 5: The Proposed Development** provides more information on the Development.
- 4.3 The Proposed Development would comprise:
- A purpose-built student accommodation (PBSA) building, split across two blocks that would be connected at the ground floor level:
 - The Upper Brook Street (UBS) Block would be 23 storeys tall (113.6m AOD);
 - Kincardine Road Block would be 9 storeys tall; and
 - A landscaped roof terrace and central pavilion would be located at the first floor level.
 - A Sci-Tech lab and office space building:
 - The Sci-Tech building would be 6 to 9 storeys tall (up to a maximum of 80.195m AOD).
- 4.4 The Detailed Planning Drawings that are sought for approval as part of the planning application are included within **Volume 3: Appendices, Appendix 5.1**.

Access and Parking

Pedestrian and Cycle Access and Parking

- 4.5 Pedestrian and cycle access to the Proposed Development and Upper Brook Street Masterplan – PAG / Moda Living would also be focussed along Kincardine Road, as shown in **Figure 3** below.

Vehicular Access and Parking

- 4.6 Vehicular access to the Proposed Development and Upper Brook Street Masterplan – PAG / Moda Living would be provided from Kincardine Road, which would be accessed from Upper Brook Street via Brunswick Street to the south of the Site.
- 4.7 No car parking space for general use would be provided as part of the Proposed Development. However, seven accessible parking bays would be provided along the boundary with Kincardine Road for users of both buildings, in compliance with MCC requirements (see **Figure 4** below).

- 4.8 Taxi drop-off and collection will be provided via Kincardine Road to the north-east of the Site, with dedicated laybys adjacent to the new public realm space.

Figure 3: Pedestrian and Vehicular Access

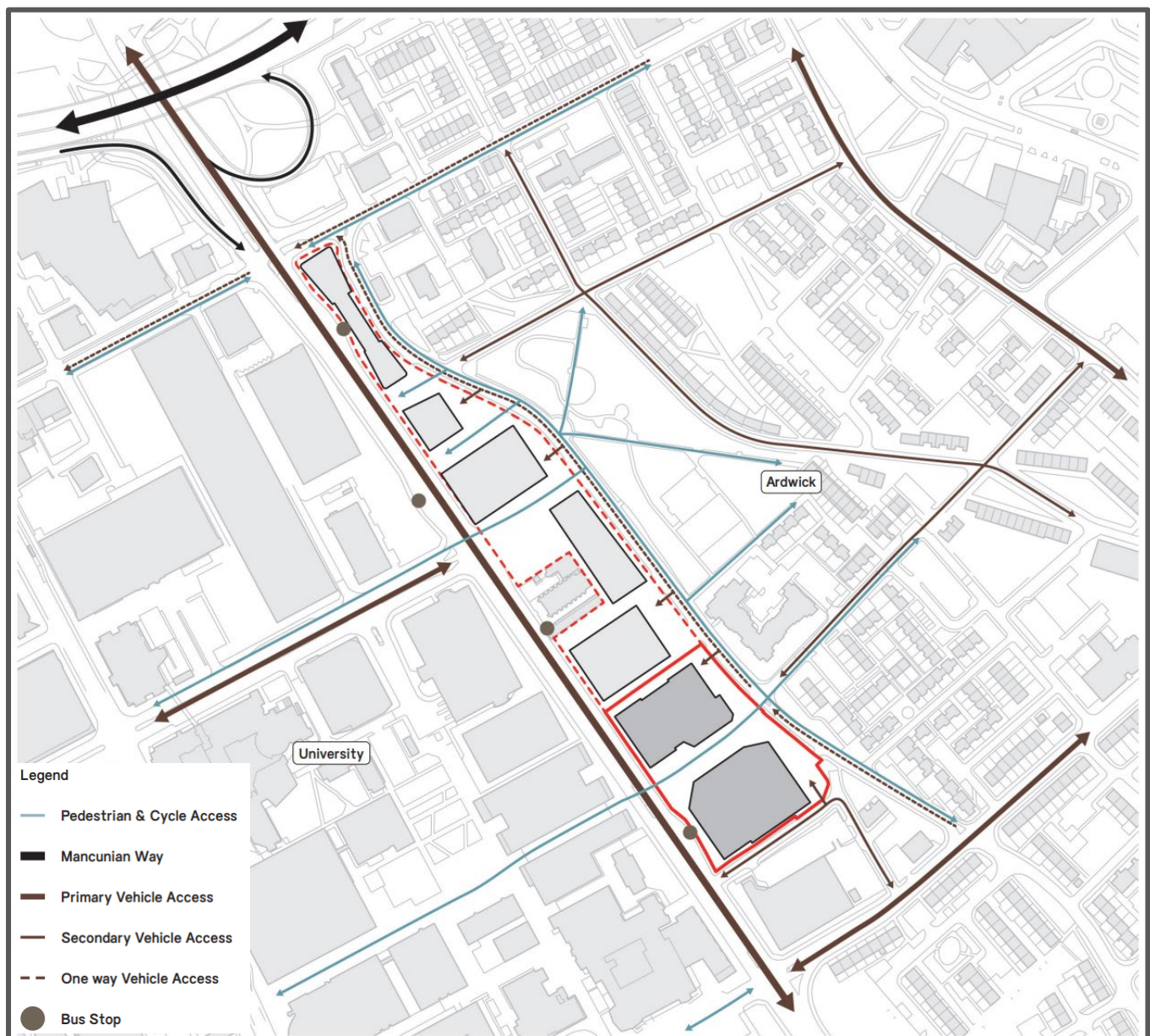


Figure 4: Vehicular Parking



Appearance

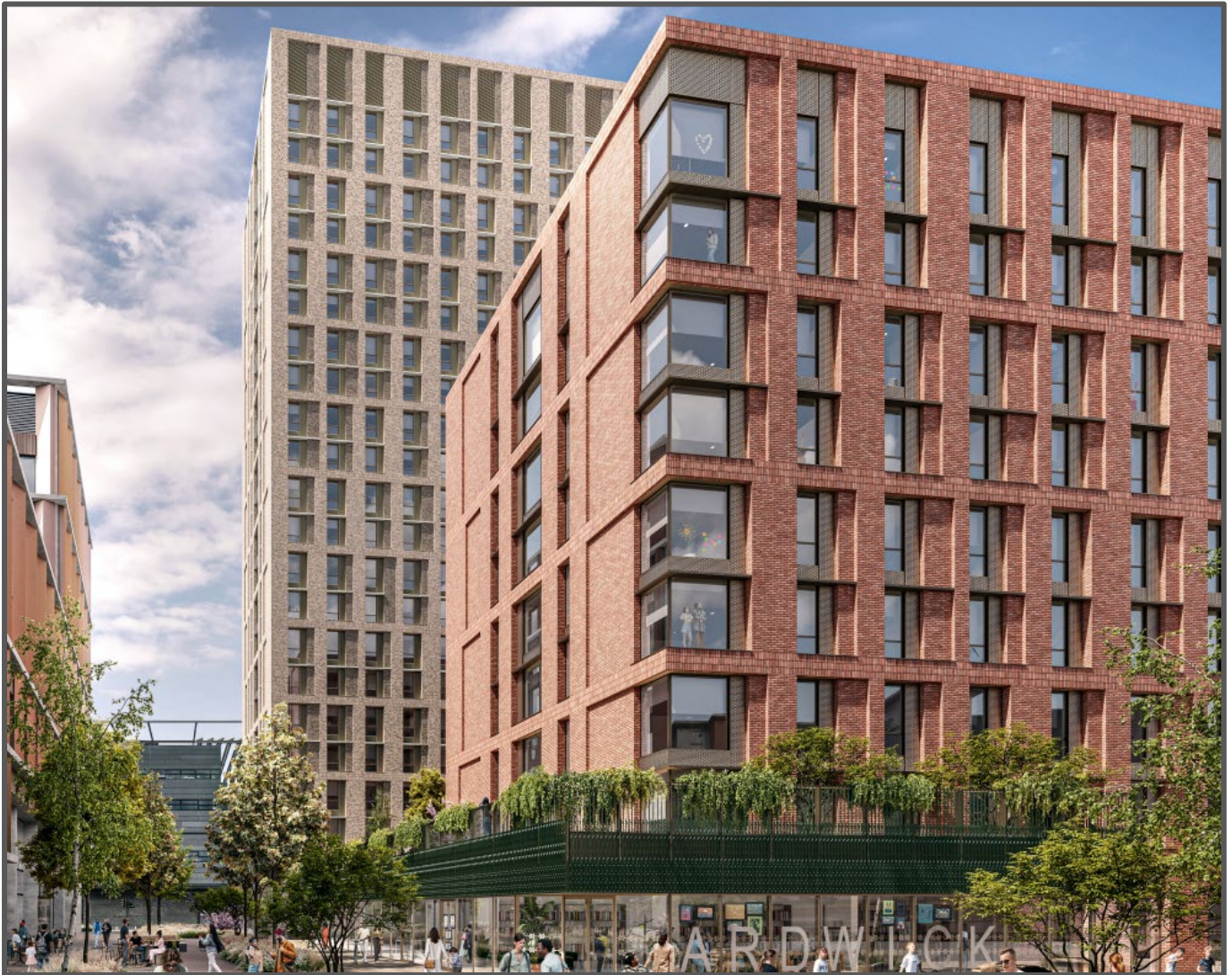
- 4.9 The Sci-Tech building features a gridded façade and would be primarily clad in metal composed of red brick earthy tones with textured concrete and glass frontages applied to the lower floors.

Figure 5: Proposed Façade of the Sci-Tech Building



- 4.10 The façade of the PBSA building would feature a two-tone design. A lighter brick and metal panel façade treatment would be applied to the University-facing Upper Brook Street Block, while a red brick and bronze panel façade treatment would be applied to the Brunswick Neighbourhood-facing Kincardine Road Block. For the ground floor amenity and community space that links the two blocks, a glazed curtain walling would be applied to activate the ground floor facades, a green and bronze-coloured decorative panel would conceal the louvered ceiling zone.

Figure 6: *Proposed Façade of the PBSA Building*



- 4.11 Further details of the building designs are shown on the elevation drawings and the materials described in the Design and Access Statement (DAS).

Landscape Strategy

- 4.12 The Landscape Strategy would include a series of measures aimed at creating a high-quality landscape setting for the Development and would look to integrate the Development into the existing environment, with emphasis placed wherever possible on ecological enhancement.

- Public Realm (including Thorburn Walk);
- Service Area;
- Play Space; and
- PBSA Roof Terrace.

Surface Water Drainage

- 4.13 The general principles applied to the surface water drainage strategy for the Development are to treat, store and control surface water runoff through the use of Sustainable Urban Drainage Systems¹ (SUDS).
- For the PBSA building:
 - A tanked / geocellular system with an attenuation volume of 101m² located in the south of the Site;
 - Permeable paving with an approximate storage of 154m²; and
 - Rain gardens would be situated around the PBSA building and along Thorburn Walk.
 - For the Sci-Tech building:
 - A tanked / geocellular system with an attenuation volume of 477m² located beneath the service yard in the north-east of the Site;
 - Permeable surfacing and rain gardens which would provide conveyance, water quality, amenity and biodiversity benefits; and
 - Overland exceedance flow route towards Upper Brook Street in the south-west of the Site.
- 4.14 The drainage strategy would therefore ensure that surface water discharge rates would be limited to the agreed greenfield runoff rate for all return periods up to the 1 in 100 year plus 45% climate change event.

Waste Strategy

- 4.15 The PBSA and the Sci-Tech building have their own separate refuse storage facilities which are located at ground floor in two locations. The PBSA refuse storage facilities are located on the north side of the building with holding areas located to the northwest corner and a waste collection area located adjacent to Kincardine Road to the east. The Sci-Tech refuse storage facilities and holding area are located on the east side of the building. A waste collection area is located adjacent to Cottenham Street to the south.

Energy Strategy

- 4.16 An Energy and Sustainability Statement is submitted alongside the planning application, the contents of which are summarised for the PBSA and Sci-Tech building below.

PBSA

- The Proposed Development will adopt the use of an energy hierarchy approach which is a classification of energy options, prioritised to assist progress towards a more sustainable energy system.

¹ Sustainable Urban Drainage Systems (SUDS) are drainage solutions that provide an alternative to the direct channelling of surface water through networks of pipes and sewers to nearby watercourses.

- The envelope of the new build will be designed to reduce the overall energy demand of the Development. Heat losses through the facades will be minimised whilst the size and position of openings has been optimised to maximise the use of natural light within each space.
- Mechanical ventilation which would make use of heat recovery in order to further reduce the energy demand.
- High efficiency LED lighting coupled with occupancy and daylight controls to significantly reduce the lighting energy use
- Electrical and mechanical systems within the development will be metered and controlled with a full Building Management System (BMS). This will enable energy use to be tracked and opportunities for efficiency improvements to be made.
- Radiators via heat pumps are proposed to provide the local heating to the bedrooms. The ground floor amenity area will have its own variable refrigerant flow (VRF) system A standalone Air Source Heat Pump will provide domestic hot water.
- Part of the roof area will be the location of Solar photovoltaic (PV) arrays.

Sci-Tech

The intention is to achieve a low carbon / Net Zero Carbon (NZC) energy provision through:

- a consideration of passive measures including building design and materials.
- Reverse Cycle Chillers which provide low carbon space heating and efficient comfort cooling and low carbon domestic hot water generation.
- Solar PV areas will be placed on all available roof space. With 30% - 40% of this roof space to be active area of PV.

Climate Change Resilience

4.17 The Development incorporates a number of features that would contribute to climate change resilience. These include:

- A Surface Water Drainage Strategy which has been designed to accommodate surface water runoff during all events up to, and including, 100-year (plus a 45% allowance for future climate scenarios). A summary description of the Surface Water Drainage Strategy is provided earlier in this section.
- An Energy Strategy that reduces energy demand and CO₂ emissions, as described earlier in this section.
- The Development has been designed to avoid excessive overheating and cope with the predicted increase in global temperatures as a result of global climate change. Measures include:

- Façades have been developed with suitable glazing-to-solid ratios.
- Façades have hoods to limit solar penetration to apartments.
- Aluminium ventilation boxes would be set next to windows.
- Energy efficient lighting (i.e., Light-emitting Diode (LED)) with low heat output.
- Insulation to all heating and hot water pipework.
- Energy efficient equipment with low heat output to reduce unnecessary heat gain.

Health and Wellbeing

4.18 The Development proposes features that promote and encourage healthy lifestyles and wellbeing. Such design features include the following:

- The provision of amenity spaces, allowing for physical activity and social interaction and integration.
- The provision of ample cycle parking-spaces and improvements to pedestrian routes adjacent to the Site. Again, this would encourage physical activity.

Demolition and Construction Programme

4.19 Construction of the Sci-Tech building is expected to commence in January 2024 and conclude in April 2026 (for a duration of approximately 113 weeks); while the construction of the PBSA building is expected to commence in April 2024 and conclude in May 2026 (for a duration of approximately 75 weeks).

4.20 The PBSA building would be operational by August / September 2026, ready for student occupation beginning at the start of the 2026 / 2027 academic year.

4.21 Demolition of three structures on-Site would be necessary to facilitate the construction of the Proposed Development, these structures are Elizabeth Yarwood Court, the former Citroën dealership showroom and the former Citroën dealership pavilion. Existing ground structures and obstructions such as drains, hardstanding, relic foundations, service ducts and pipelines would also be removed to facilitate construction of the Proposed Development. Construction would begin with ground works and bearing piles will be installed. Appropriate traffic management controls would be implemented during the Works and site accommodation / construction compounds would be required for the appointed contractor and subcontractors.

4.22 Following the grant of full planning permission and once the Principal Contractor has been appointed, a Construction Environmental Management Plan (CEMP) would be produced to set out how the demolition and construction works would be carried out and the Applicant's intentions for managing environmental effects during the works. The CEMP would include details of the proposed construction methodologies, programme, method statements and detailed mitigation measures.

- 4.23 **Volume 2: Main Text, Chapter 5: The Proposed Development** provides more information on the demolition and construction works, programme and proposed mitigation and management of the activities.

5. Alternatives and Design Evolution

5.1 In considering various alternatives to the Development, the EIA Regulations require Applicants to consider the consequences of not undertaking the development of a site. The 'No Development' scenario greatly limits the potential of the Site, especially with regards the relationship with its surrounds, existing and future users. The Site is identified for redevelopment in Oxford Road SRF Guidance 2019, and as such, it is likely that the Site will be developed if the current proposal was not made such that the 'no development' scenario is unrealistic. The no development situation would result in the lost opportunity for the following key benefits within the Site and its surrounds:

- No additional local spending from new student residents.
- No provision of improved landscaping around the Site to enhance the public realm.
- No creation of temporary construction jobs and permanent jobs associated with the completed and operational Development.

PBSA

5.2 Three layout and massing options were explored for PBSA building.

5.3 The design options progressed from enclosed building structures dominated by internal views to a layout where external amenity space is more welcoming, green infrastructure can be maximised and where there is a clear pedestrian opening which emphasises the new pedestrian route created through the site.

5.4 Option 1 and 2 had significantly more frontage that faced the neighbouring development sites within the Corridor, which would impact on views, daylight provision and privacy of the student residents. The outdoor space within the Site would also be overshadowed by the enclosed placement of the buildings. The Option 3 design faces outwards onto the passing roads which ensures greater natural light for residents, optimises views from student rooms and surveillance.

5.5 Option 3 was selected as the two-block design allows for the:

- Maximisation of the available views by orientating the PBSA bedrooms towards the east and west.
- Creation of a larger buffer zone between the Kincardine Road block and Kincardine Road which to be used for landscaping.
- Of the three designs, Option 3 would better align with the urban context of the area.

5.6 Three options were explored for the façade materiality of the PBSA building. This included a 'matching option' (i.e. red brick to both blocks), a 'marked contrast option' (i.e. pale grey brick to the Upper Brook Street block and red brick to the Kincardine Road block), and a 'two tone option' (i.e. lighter red / pink brick to the Upper Brook Street block and red brick to the Kincardine Road block).

Sci-Tech

- 5.7 A proposed building massing is provided within the Oxford Road SRF. During the design stage, a design verification process was undertaken to explore alternative options for the massing and layout of the Sci-Tech building. It was concluded that the initial proposal offered the best lab functionality and tenancy splits, and the simple single stepped massing functioned the best in terms of townscape views and services distribution.
- 5.8 **Volume 2: Main Text, Chapter 4: Alternatives and Design Evolution** provides more information on how the scheme evolved and the alternatives that were considered.

6. Approach and Environmental Impact Assessment Methodology

- 6.1 The EIA was undertaken in accordance with the EIA Regulations and best practice guidance using established methods such as site surveys, reviews of available reports and data, computer modelling, consultation with relevant organisations and specialist assessments.
- 6.2 An early stage of the EIA process involved undertaking 'Scoping'. The purpose of the scoping process was to identify the likely significant environmental effects that could arise from the Development and therefore provide the focus of the EIA. Via the EIA scoping process, which included the submission by the Applicant of a Scoping Note, and discussions with MCC, an informal EIA Scoping Opinion was issued, identifying that the Development would likely give rise to a number of significant environmental effects that would warrant full assessments as part of the EIA process. These were categorised within the key environmental topics listed below:
- Townscape, Visual and Built Heritage;
 - Socio-economics;
 - Wind Microclimate;
 - Daylight, Sunlight and Overshadowing;
 - Climate Change; and
 - Transportation.
- 6.3 Each of the above issues have been addressed in the ES, with a 'Chapter' dedicated to each of these issues in **Volume 2: Main Text**.
- 6.4 For **Volume 2: Main Text, Chapters 6 – 11**, a description of the assessment methodology has been provided together with a description of the existing environmental aspects of the Site and surrounding area. This is followed by an assessment of the likely significant effects of the Development (both beneficial and adverse) and any additional measures that should be adopted to reduce or offset any significant adverse effects identified during the assessment. Such additional measures would be related to elements of the Development's design that were not already incorporated into the Development or additional environmental management controls that would automatically be required via legislation or standard means, irrespective of the need for EIA.
- 6.4.1 The ES also provides an assessment of the likely 'residual effects' that would remain after the application of any additional mitigation measures, as well as the cumulative effects of the Development together with other relevant Cumulative Schemes. These include five Cumulative Schemes which have been granted planning consent and are located within 1km of the Site, as well as one Cumulative Scheme which is currently in the pre-application stage but that will form Upper Brook Street Masterplan – PAG / Moda Living. They are detailed in **Table 2** and **Figure 7**.

Table 2: Cumulative Schemes within approximately 1 km of the Site's Boundary

No.	Planning Reference	Description of Development	Status	Distance and Direction from the Site
1*	101664/FO/2013/N2	Brunswick Neighbourhood Selective demolition and clearance (including a number of residential, retail and other non-residential buildings) to allow the phased redevelopment and refurbishment of the Brunswick Neighbourhood, including the erection of 444 new residential dwellings (C3); the refurbishment of 839 existing homes [including low rise reversals and the refurbishment of Artillery Court, Silkin Court, Lockton Court, Lamport Court, and existing maisonettes and low rise houses]; a new boulevard and new access roads, new car parking and service areas; a new mixed use building comprising of 4 retail units (A1 or launderette or A5), and a neighbourhood housing office (B1a) with 18 apartments (C3) above; a mixed use residential extra care home with 60 residential units, and a day care centre on part of the ground floor (C2/D1); the upgrading of Gartside Gardens [with new multi-use games area, a new playground, realigned pathways, new entrances and new landscaping]; a new orchard; 25 new allotments; new boundary treatments; new open spaces; with associated infrastructure, landscaping and tree planting.	Application validated: 18 February 2013. Application approved: 30 May 2013. Construction started and nearing completion, with only the construction of the Linden Homes development at the intersection of Upper Brook Street and Brunswick Street remaining.	Encompasses the southern half of the Site along with the surrounding Brunswick area
2**	N/A	Upper Brook Street Masterplan – PAG / Moda Living Demolition of structures associated with the former BMW Williams Dealership and the erection of up to 3 buildings comprising of student accommodation and up to 2 buildings comprising life sciences use, up to 120m in height.	Currently in the pre-application stage.	Adjacent to the Site's north-western boundary.
3	124472/FO/2019	Kincardine Court Extension Erection of a part 4, part 5, part 6 storey extension to existing student accommodation building to form 25	Application validated: 14 August 2019	15m north-east.

No.	Planning Reference	Description of Development	Status	Distance and Direction from the Site
		additional student flats (comprising 100 bedrooms) (Use Class Sui Generis) to form 86 student flats in total (329 bedrooms) following removal, modification and reconfiguration of existing car parking, landscaping and boundary treatment together with the erection of a single storey water tank.	Application approved: 06 December 2019. Construction completed: October 2022.	
4	134288/FO/2022	Number 3 Circle Square 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.	Application validated: 19 July 2022. Application approved: 04 November 2022. Groundworks started: 06 December 2022.	570m north-west.
5	125799/FO/2019	MMU Science and Engineering Building 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.	Application validated: 20 December 2019. Application approved: 12 March 2020. Construction started: 14 April 2021.	720m north-west.
6	125573/FO/2019	First Street South Construction of four buildings of heights varying from 10 storeys to 45 storeys together comprising Co-living bedspaces (use class sui generis) and associated amenity facilities, with ground floor commercial units (Use classes A3 (Café / Restaurant and D2 (Gym)), private amenity space and public realm comprising hard and soft landscaping, car parking and cycle facilities and other associated works.	Application validated: 22 January 2020. Application approved: 09 March 2021. Construction started: 21 March 2022.	925m north-west.

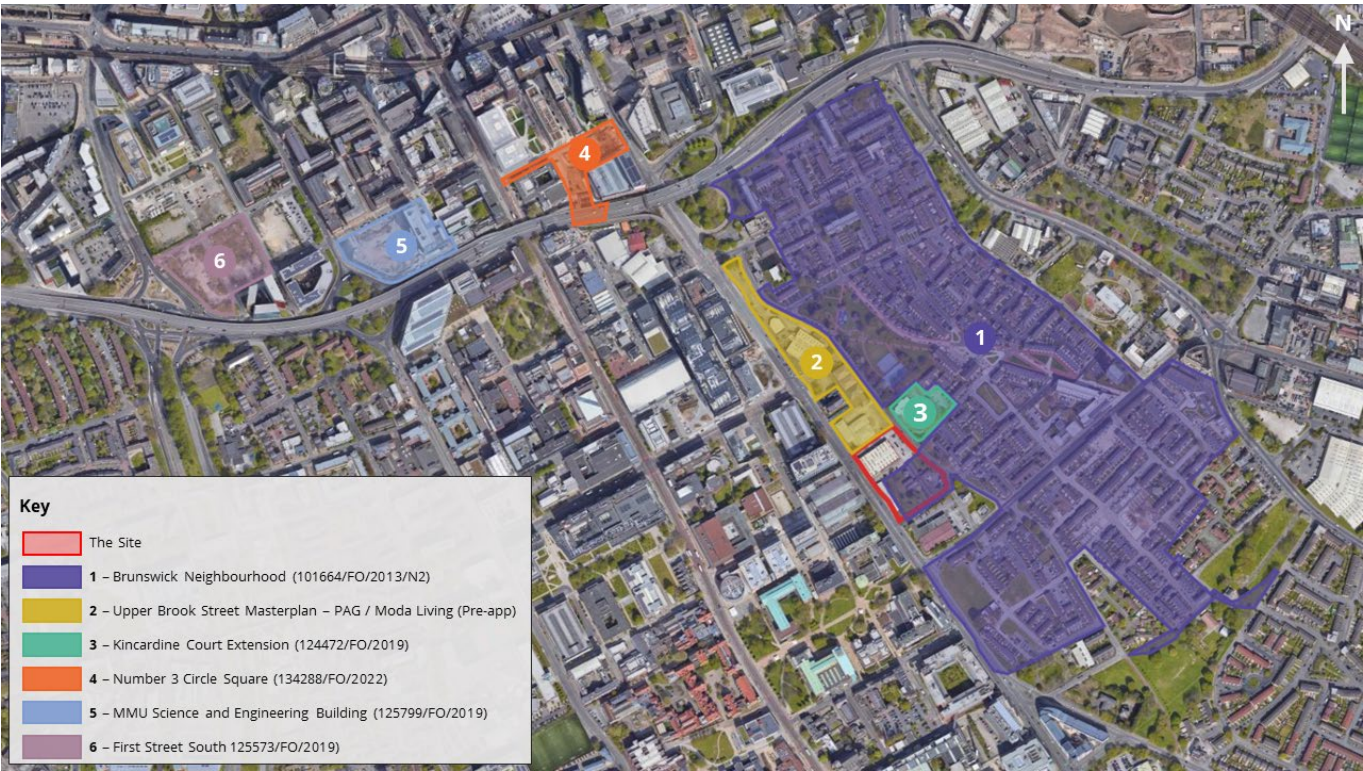
* A significant amount of Cumulative Scheme No. 1 (Brunswick Neighbourhood) is already built-out, and therefore a part of the baseline environment for the EIA. The remainder that is not built out, i.e. the Linden

No.	Planning Reference	Description of Development	Status	Distance and Direction from the Site
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Homes development on the intersection of Upper Brook Street and Brunswick Street, are considered to be the 'cumulative' element for the EIA.

** Cumulative Scheme No. 3 (Kincardine Court Extension) has since been constructed and is therefore now a part of the baseline environment.

Figure 7: Cumulative Schemes within approximately 1 km of the Site's Boundary



6.5 **Volume 2: Main Text, Chapter 2: EIA Approach** provides information on the methodology used to undertake the EIA.

7. What are the Likely Environmental Effects and How Would They be Minimised?

Townscape, Visual and Built Heritage

Demolition and Construction

- 7.1 The most significant townscape and visual effect associated with the Works would be the demolition of the existing structures on the Site, the erection of tower cranes, scaffolding, netting and demolition platforms, groundwork excavations, heavy plant and the construction of new buildings. Each of these would result in some deterioration of the Site's townscape character and visual intrusion. However, their presence would be an inevitable consequence of the nature and scale of the Development and would be an expected consequence of the Works. Across Views 1 – 13, the significance of effects would range from **Minor Adverse** to **Minor Adverse – Negligible (Not Significant)**.
- 7.2 Whilst in terms of heritage receptors, the above aspects of the construction phase are likely to have a temporary, short-term, **Minor Adverse** effect (**Not Significant**) on the nearby Grade II listed Mawson Hotel and the Grade II* listed Former Unitarian Chapel.

The Completed and Operational Development

- 7.3 The magnitude of change which the Development would bring would be major; with the resulting nature of the effect being **Major Beneficial (Significant)**. The Development sets to replace the poor-quality buildings on the Site with high quality buildings which have been designed to mediate between the contrasting townscapes to either side. The Site would be set within a high quality and coordinated public realm and it would create active frontages and community uses to create a sense of place and draw the local distinctiveness of the University campus and the Brunswick community together.
- 7.4 Key townscape and visual impacts relating to the redevelopment of the Site have been assessed through 13 strategic and close up views identified by Donald Insall Associates and agreed with Manchester City Council (see **Figure 8** below). The 13 viewpoints within this assessment include views north and south along the heavily trafficked Upper Brook Street, across the university campus to the west and through the residential housing in Brunswick to the east – both areas which have been subject to significant development in recent years.

Figure 8: Viewpoint Locations

7.5 Following the implementation of the proposed additional mitigation, a Landscape Environmental Management Plan (LEMP), the significant residual effects upon Townscape, Visual and Built Heritage (excluding the Cumulative Schemes) would be as follows:

- **Moderate Beneficial** effect on the townscape of the Site and on the following viewpoints: View 1 (View from north corner of Upper Brook Street / Booth Street East junction), View 2 (View from east end of pedestrianised section of Brunswick Street) and View 3 (View from junction of Brunswick Street and Kincardine Road). This is **Significant** in EIA terms.
- **Moderate Adverse** effect on the following viewpoints: View 6 (View from Gartside Gardens) and View 7 (View from north-east end of Balsam Close). This is **Significant** in EIA terms.
- **Moderate Beneficial** effect on the setting of the Grade II listed 'Mawson Hotel' from View 3. This is **Significant** in EIA terms.
- **Major Beneficial** effect on the setting of the Grade II* listed 'Former Unitarian Chapel' from View 1, and a **Moderate Beneficial** effect on its setting from View 3. Both are **Significant** in EIA terms.

- 7.6 From the Brunswick Estate to the east some adverse effects have been identified due to the contrast with the domestic scale of the housing, this is reduced to a degree due to the quality of the contemporary architectural design proposed and the visual link this creates with the contemporary housing within the estate. The presence of the existing large-scale University campus buildings in these views gives context to the proposed step-up in the scale of development facing Upper Brook Street. The adverse effects are reduced further by the public realm and connectivity enhancements between the Brunswick community and the Site. This would draw similar beneficial effects from within the University of Manchester campus where the massing and height of the proposed Development would have a negligible effect owing to the townscape and views within which it would sit.
- 7.7 In terms of the effects on the two heritage receptors, the effect upon the Mawson Hotel (Grade II) would be **Moderate Beneficial** owing to the significant enhancement that would be brought to its fragmented setting despite the extent of massing proposed. The effect on the Former Unitarian Chapel (Grade II*) varies across the views presented but in the main part, the effect generally is **Major Beneficial** at best and, at worst, **Minor Adverse** where the increased massing is significant in the context of its roofline which would have likely been more readily visible historically.

Cumulative Effects

- 7.8 The construction effects on the surrounding townscape and views will be temporary and are limited to effects such as the presence of scaffolding and hydraulic access platforms, large machinery, cranes, storage, site accommodation and welfare facility. The presence of temporary structures (such as portacabins) within the setting of heritage assets would be contained within the Site and behind hoarding.
- 7.1 A Cumulative Effects Assessment (CEA) was undertaken to consider the effects of the following Cumulative Schemes in-combination with the Proposed Development. The following schemes are included in the CEA:
- Cumulative Scheme No. 2 (Upper Brook Street Masterplan – PAG / Moda Living);
 - Cumulative Scheme No. 4 (Number 3 Circle Square);
 - Cumulative Scheme No. 5 (MMU Science and Engineering Building); and
 - Cumulative Scheme No. 6 (First Street South).
- 7.9 Cumulative Schemes 4, 5 and 6 were not found to have any effect upon Townscape, Visual or Built Heritage for any of the viewpoints.
- 7.10 In Views 7, 11, 12 and 13, none of the Cumulative Schemes included in the CEA had any effect at all. Cumulative Scheme No.2 (Upper Brook Street Masterplan – PAG / Moda Living) had significant beneficial effects on Townscape, Visual and Built Heritage for Views 1 and 3. The effects of Cumulative Scheme No. 2 on Townscape and Visual in Views 2, 4, 5 were significantly beneficial but the effect on Heritage was significantly adverse. Viewpoint 6 had significant adverse effects from Cumulative Scheme No. 2 on Townscape, Visual and Heritage.
- 7.11 **Figure 9 and Figure 10** illustrate the Cumulative Scenario (i.e. with the Proposed Development and the Cumulative Schemes), against which the above conclusions were drawn.

Figure 9: View 2 (View from east end of pedestrianised section of Brunswick Street) – with the Proposed Development + Cumulative Schemes



Figure 10: View 6 (View from Gartside Gardens) – with the Proposed Development + Cumulative Schemes



Socio-economics

Demolition and Construction

- 7.12 Demolition and construction would support 826 person years of construction related employment. These temporary construction jobs would generate £20 million per year for three years in Gross Value Added (GVA)² to the local authority area. This is assessed as a **Minor Beneficial** short-term effect on the wider area, which is **Not Significant**.
- 7.13 Disruption to the local area resulting from the construction of the Proposed Development (i.e. the movement of materials by HGV etc.) would result in a **Negligible** short-term effect on the immediate area, which is **Not Significant**.

The Completed and Operational Development

- 7.14 The Proposed Development will create 740 bedrooms for purpose-built student accommodation. Based on the University of Manchester's estimated living costs for undergraduate and postgraduate students, and assuming a 50/50 split between undergrad and postgrad, this suggests annual spending of £7.9m per year which equates to 92 direct and indirect jobs in relevant sectors and GVA per year of £5.4m. This would result in a **Minor Beneficial** effect upon the local population, which is **Not Significant** in EIA terms.
- 7.15 The Proposed Development will deliver 21,077 sqm of purpose-built Sci-Tech space building on the knowledge economy of Manchester. A small amount of retail (265 sqm) will also be created to service new residents and workers. A development of this size will create 545 direct and indirect jobs based on an employment density of 36 sqm per job for Sci-Tech space (which is based on Kadans' experience in developing such facilities elsewhere and in line with Government guidance on job densities) and 17.5 sqm per job for retail. Displacement of 20% for Sci-Tech and 30% for retail in line with national guidance and a multiplier of 1.427 for retail and 1.569 for Sci-Tech. This will result in total GVA per year of £20.6m. The Proposed Development will increase the revenues to MCC through business rates (£2.37m per year) related to the Sci-Tech space and Council Tax (£0.5m per year) assuming that the houses that would have been occupied by students are occupied by working people. This makes a total of £2.86m per year in additional taxes to MCC. This would result in a **Minor Beneficial** effect upon the local economy, which is **Not Significant** in EIA terms.

Cumulative Effects

- 7.16 The Cumulative Schemes and the Proposed Development, are complementary to Manchester's growth strategy, meeting the established demand forecast for growth in the Oxford Corridor. The cumulative effect of the Cumulative Schemes will be to increase supply of housing, Sci-Tech space, retail, and office space which will increase local economic activity and contribute towards established growth objectives.

² GVA is the value of economic activity generated as a result of work undertaken.

- 7.17 Whilst there is capacity within GPs for the population expansion forecast, there are issues with availability of dentists, in common with other parts of the UK. However, the requirement for additional dentists is being addressed at the UK Government level to increase access to NHS dentists.

Wind Microclimate

Demolition and Construction

- 7.18 The assessment only considers the Proposed Development in its fully constructed state. Wind conditions are expected to be 'worst-case' when the building is at maximum height, therefore partially constructed stages are not considered. During construction, no public access to the site will be allowed, so assessing pedestrian comfort on site during construction would not be appropriate. Furthermore, changes to wind conditions at partially constructed stages are temporary.

The Completed and Operational Development

- 7.19 Computational Fluid Dynamics (CFD) simulations (a computer-based modelling technique which simulates the effect of wind on the built environment) of the completed and operational Development revealed a range of wind microclimate effects. The Site would be suitable and safe in terms of wind conditions for the desired pedestrian uses and activities expected to occur in and around the Development, with the inherent landscaping design.
- 7.20 CFD testing also revealed that with the Development in place, all areas surrounding the Site would remain generally suitable as wind conditions are predicted to be at worst **Minor Adverse (Not Significant)** in terms of the sensitive receptors in the area for pedestrian activities.

Cumulative Effects

- 7.21 Wind tunnel testing was also undertaken for the Development and relevant Cumulative Schemes. This concluded that wind conditions remain suitable, both in terms of pedestrian safety and comfort. The one location further north along Upper Brook Street is now deemed inappropriate for sitting. The effects of the Proposed Development were assessed to be Negligible on this area as the change in wind conditions is viewed as a consequence of the Upper Brook Street Masterplan – PAG / Moda Living scheme, not the Proposed Development and as such, no additional mitigation measures are required.

Daylight, Sunlight and Overshadowing

Demolition and Construction

- 7.22 The potential daylight and sunlight effects relating to demolition and construction works will vary throughout the construction programme and gradually as construction of the Development proceeds, the effects to daylight, sunlight, overshadowing and solar glare to surrounding receptors would evolve to eventually meet those resulting from the completed and operational Development.

The Completed and Operational Development

- 7.23 A detailed assessment was undertaken to determine the effects of the physical presence of the Development on the amount of daylight and sunlight received by neighbouring properties. In addition, an assessment was undertaken to determine the effect of overshadowing on amenity spaces surrounding the Site and at locations which could cause solar glare to road and rail users. The results for daylight, sunlight and overshadowing were compared to levels within the 'industry standard' document produced by the Building Research Establishment (BRE) called Site Layout Planning for Daylight and Sunlight - A Guide to Good Practice (2022) (called the BRE Guidelines below).
- 7.24 For daylight, a total of 217 windows serving 155 rooms were assessed within six buildings considered to be sensitive receptors. Out of the 217 windows assessed for daylight, 172 (79%) meet the BRE guidelines for Vertical Sky Component (VSC), a measure of the sky light reaching the midpoint of a window. For No Sky Line (NSL), a measure of the distribution of diffuse daylight in a room, 134 (87%) of the 155 rooms assessed meet the BRE criteria. For sunlight, 55 (98%) of the 56 rooms assessed meet the BRE criteria for both Winter and Annual APSH.
- 7.25 Following completion of the Development, the results of the assessment show that the existing residential properties surrounding the Site will continue to receive adequate levels of daylight. Whilst daylight to the surrounding properties would be noticeably affected as a result of the Development, this is not unusual given the urban context of the Site and its surroundings. It is considered that the overall daylight availability for the affected residential properties remains adequate given the dense, urban location, underdeveloped nature of the Site and emerging height and density in the locality.
- 7.26 In terms of sunlight, a total of 56 living rooms were assessed within five buildings considered sensitive receptors. All rooms within the surrounding properties, apart from Mawson Hotel, would continue to meet BRE Guidelines and as such the effect would be **Negligible (Not Significant)**. One room in the Mawson Hotel would experience a **Major Adverse** effect (Significant) to Annual Probable Sun Hours (ASPB). Reductions in sunlight amenity to the property which is affected are limited and all the surrounding residential properties will continue to receive adequate levels of sunlight with the Proposed Development in place.
- 7.27 In terms of the potential for the Development to result in overshadowing, four surrounding sites were assessed. The existing amenity areas of Sefton Close, Hardshaw Close, Gartside Gardens and Kincardine court would continue to receive two hours of direct sunlight and therefore the BRE criteria for Sun Hours on Ground will be met. As such, the effect on overshadowing to this amenity area is considered to be **Negligible and Not Significant** in EIA terms.

Cumulative Effects

- 7.28 The assessment concluded that the Development together with the other relevant Cumulative Scheme would not give rise to any materially different daylight, sunlight and overshadowing effects over and above those identified for the Development in isolation.

Climate Change

Construction and Demolition

7.29 Due to the current stage of the Proposed Development, there is limited detail available in order to confirm greenhouse gases (GHG) mitigation measures embedded in the construction process of the construction materials and design of the Proposed Development. However, measures to reduce GHG emissions are suggested:

- Use of construction materials with the lowest embodied carbon content.
- Materials should be sourced as close to the Proposed Development as possible, in order to minimise transport related emissions.
- Encourage uptake of the cycle-to-work scheme, encouraging public transport use to mitigate private transport use and where possible employ a local workforce to limit travel distance.
- Submission of a CEMP which would comprise of a number of measures to manage and control the works to avoid or minimise environmental effects and nuisance issues.

The Completed and Operational Development

7.30 No significant adverse effects have been predicted and mitigation measures are not required. However, several measures are identified below that would assist in reducing the amount of GHG emitted as a result of the Proposed Development:

- The building envelopes will be designed to perform significantly better than the Building Regulation standards.
- Façade design will incorporate measures to minimise heat loss whilst the size and position of openings has been optimised to maximise the use of natural light.
- The Proposed Development will be mechanically ventilated throughout the year, making use of heat recovery to reduce the heating demands, and manually perforated openings to assist with summertime overheating.
- Energy efficient services including high efficiency LED lighting coupled with controls to significantly reduce the lighting energy use.
- Electrical and mechanical systems within the Proposed Development will be metered and controlled by a Building Management System (BMS). This will enable energy use to be tracked and opportunities for efficiency improvements to be made.

7.31 A range of measures have been proposed for the Proposed Development to mitigate the potential impacts arising from the climate change and to adapt it to cope with extreme weather events. These relate to architectural / structural specifications, building services, landscaping strategy and civil / infrastructure. A comprehensive description of these measures can be found in **Volume 2: Main Text, Chapter 10: Climate Change**.

Cumulative Effects

- 7.32 An assessment of the cumulative impact of the Proposed Development with the identified nearby Cumulative Schemes has not been carried out as all GHG emissions are inherently cumulative. It is assumed that each Cumulative Scheme will seek to implement best practice measures in the form of embedded mitigation to limit their GHG emissions.
- 7.33 The Proposed Development includes measures to ensure its resilience to the effects of climate change. None of these measures will prevent any of the other developments within the Cumulative Scheme from incorporating measures to ensure their resilience to climate change. Taken together, there will be an increase in climate resilience within the building stock within Manchester. However, the Proposed Development and the identified Cumulative Schemes form only a very small proportion of the built stock in Manchester and as such would have a combined negligible effect on the resilience of built stock across the city.

Transportation

Construction and Demolition

- 7.34 Construction traffic will access the site using the A34 Upper Brook Street, the A57(M), and either the M602, M56, M60 or M62 to access the motorway network. These are all strategic roads designed to accommodate the movements of larger vehicles.
- 7.35 It is likely that there will be an increase in traffic on the local highway network from construction workers. It is likely that there will be an increase in HGVs on the local highway network associated with the construction and delivery of materials to the Site. The impact of this temporary additional traffic on severance, driver delay and pedestrian delay is expected to be **Negligible**, which is **Not Significant** in EIA terms.

The Completed and Operational Development

- 7.36 Mitigation measures have been explored at the design stage to eliminate, minimise or manage identified potential significant effects on the environment by the Proposed Development. The section below provides details of the mitigation measures 'embedded' into the Proposed Development:
- As a car-free development (except for disabled parking) will encourage users to travel by more sustainable modes, mitigating the impact of the Proposed Development in terms of severance, driver delay, pedestrian delay, pedestrian amenity and road safety.
 - Cycle Parking and Trip-end Facilities to encourage people to cycle.
 - Inclusive access to the buildings will accommodate the needs of all users, including those people with disabilities and have a positive impact on pedestrian amenity.

7.37 The section below details the potential impacts of the Proposed Development and their significance:

- Increases in traffic are likely to be indiscernible when compared with day-to-day fluctuations in traffic and therefore the Proposed Development is considered to have a **Negligible** effect upon severance which is **Not Significant** in EIA terms.
- Increased numbers of pedestrian and cyclists on the local highway network are to be expected and increased active travel will reduce the number of private vehicles generated by the Proposed Development.

Cumulative Effects

7.38 It was agreed with MCC and Transport for Greater Manchester (TfGM) during the scoping process that, as the Proposed Development is car-free, and located in a sustainable location, detailed trip distribution and junction modelling was not required, as confirmed in the Transport Assessment, and therefore a high-level assessment of the Cumulative Scenario has been made.

7.39 In terms of the construction and demolition phase, the increase in all vehicles will have a **Negligible** effect upon severance, pedestrian delay, pedestrian amenity, driver delay and accidents and safety on all considered walking, cycling and public transport links on all links except for the A34 Upper Brook Street which will have a **Minor Adverse** effect (**Not Significant**) as, without mitigation, there could be an increase in HGV movements of 44%.

7.40 It is standard practice for MCC to require CEMPs for developments of the scale of the Cumulative Schemes identified. The measures required to be addressed by MCC in a CEMP will have the effect of minimising transport related impacts on a site-specific basis such that effects are **Negligible**. It is therefore considered that the cumulative effect of each of the Cumulative Schemes with the Proposed Development would be **Not Significant** in the context of traffic flows conditions on the local highway.

7.41 Once all Cumulative Schemes are operational, there is the potential for increase in vehicle movements at junctions in the vicinity. However, the limiting factor is likely to be availability of car parking. Once car parks in the area are full, users of each of the Cumulative Schemes will be more likely to use other, more sustainable forms of transport, as they will become comparatively more convenient.

7.42 There will be an increase in the number of pedestrians and cyclists in the area when all the Cumulative Schemes are completed. It is not possible to quantify at this stage, as baseline pedestrian and cycling numbers are not known, but the impact would be at least **Negligible** to **Minor Beneficial** (**Not Significant**).

7.43 Based on the cumulative change, there will be a **Negligible** effect upon severance, pedestrian delay, pedestrian amenity, driver delay and accidents and safety on all considered links.

Effect Interactions

Demolition and Construction

- 7.44 No significant adverse residual effect interactions are anticipated during the Works.

The Completed and Operational Development

- 7.45 No significant adverse residual effect interactions are anticipated during the operational phase of the Development.

8. What Happens Next?

- 8.1 Following the submission of the revisions to the planning application, there will be an opportunity for any interested parties to comment on the proposals. The ES and a set of documents supporting the full planning application and revisions to it can be viewed on the MCC's Planning Portal website:

<https://pa.manchester.gov.uk/online-applications/>

- 8.2 Comments on the planning application and ES may be addressed to Jennifer Atkinson at the address below:

jennifer.atkinson@manchester.gov.uuk

Manchester City Council

Floor 6 Town Hall Extension

Albert Square

Manchester

Greater Manchester

M60 2LA

- 8.3 A CD version of the ES can be purchased from Avison Young on request at a cost of £25. Contact details are provided overleaf.

Contact Details

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