

7-9 Piccadilly Gardens

Environmental Standards Statement for Planning

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Glossary

Term	Definition
BRE	Building Research Establishment
BREEAM	Building Research Establishment's Environmental Assessment Method
MCC	Manchester City Council
NC	New Construction
NPPF	National Planning Policy Framework

1 Executive Summary

This Environmental Standards Statement has been prepared in support of the detailed planning application for the 7-9 Piccadilly Gardens development, located in Greater Manchester.

The Proposed Development comprises the retention of the commercial unit on the ground floor, with the conversion of the upper floors into high quality Grade A office accommodation, including the sensitive introduction of a third, fourth and fifth floor onto Piccadilly Gardens with a sixth floor set back to provide the opportunity for an attractive roof terrace.

This Statement seeks to demonstrate how Manchester City Council's (MCC) sustainability policies within the Core Strategy (2007) and Manchester Guide to Development (2007) have informed the Proposed Development. In addition, a narrative is included on how the Proposed Development is responding to the Manchester Climate Change Framework (2020) and the citywide target of zero carbon by 2038.

The Statement is structured around two key sections:

1. Planning policy context
2. Environmental Standards Review

The following highlights demonstrate that the Development has a clear strategy for climate change mitigation and adaptation throughout the whole life of the Development, minimising its vulnerability to climate change impacts and contributing to the Council's commitment to achieve 'net zero' carbon emissions by 2038.

Sustainability objectives	Development response
Energy efficiency and renewable energy	- Lean-mean-green approach to energy delivering an improvement of 8.2% (2013) and 12.2% (2010) over Building Regulations Part L requirements - All-electric design
Environmental design	- BREEAM Very Good rating for the new build part of the development (i.e., office) - Mitigation measures to reduce air quality impacts from construction processes - Selection for materials informed by the circular economy principles - Site benefits from accessibility to a range of sustainable modes of travel, including walking routes, cycle routes and public transport services - Travel Plan outlining physical and management measures to promote sustainable transport adopted
Water management and weather resilience	- The introduction of a blue roof resulting in a 63% reduction in surface water discharge from the brownfield site with 40% allowance for climate change - Highly efficient water fittings, flow control devices and water meters
Waste management	- Material retention prioritised favouring re-use over recycling in the first instance - Development of a Resource Management Plan (as informed by BREEAM) with project targets for construction and demolition waste - Preference for durable and resilient building elements, where possible - Sufficient storage for operational waste with 50% capacity dedicated to recycling
Construction management	Best practice construction practices including the monitoring of construction site impacts (energy, water and CO₂ from transport) and a requirement for the Contractor to operate an Environmental Management System (as informed by BREEAM)
Biodiversity	- Introduction of bat and bird boxes with an aim to improve existing site ecology - Potential for the installation of a living green wall and planter to the Back Piccadilly elevation

Adaptation to climate change	• Maximised area of glazing to reduce reliance on electric light • Recessed glazing as a passive measure for solar shading • All-electric design with deployment of low or zero carbon technologies eliminating reliance on fossil fuels for energy generation • Climate change risk assessment as informed by BREEAM
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2 Introduction

2.1 Scope of the Document

This Environmental Standards Statement has been prepared in support of the Full Planning Application for 7-9 Manchester Piccadilly Gardens, Greater Manchester.

This Statement seeks to demonstrate how Manchester City Council's (MCC) sustainability policies have informed Proposed Development.

The Statement comprises the following sections:

- **Planning Policy Review** to set the context for the development and identify key present and potential future environmental sustainability targets; and
- **Environmental Standards Review** to outline how the development will respond to the Environmental Standards set out in Chapter 4 of the Guide to Development in Manchester Supplementary Planning Document and Planning Guidance (Adopted April 2007), and relevant Core Policies (Adopted July 2012) which form part of the Manchester Local Plan.

It is recognised that sustainable development cuts across a number of issues and disciplines, reference should be made to the accompanying planning documents for further technical details. Of particular note are the following documents:

- Air Quality Assessment (SLR)
- BREEAM Pre-assessment (Buro Happold) (Appendix A)
- Design and Access Statement (5Plus)
- Drainage Strategy (Axiom)
- Energy Statement (Buro Happold)
- Surface Water Means of Disposal Report (Axiom)
- Preliminary Roost Assessment Survey (Arbtech)
- Transport Statement (Mode Consulting)
- Travel Plan (Mode Consulting)

2.2 Description of Development

The development to which this report relates comprises the retention of the commercial unit on the ground floor, with the conversion of the upper floors into high quality Grade A office accommodation, including the sensitive introduction of a third, fourth and fifth floor onto Piccadilly Gardens with a sixth floor set back to provide the opportunity for an attractive roof terrace. In terms of access, the proposals include for a main entrance to the proposed offices from Back Part Piccadilly.

The description of the development, for the purposes of the planning application, is as follows:

Retention of ground floor commercial units (Class E(a) retail and Sui Generis Hot Food Takeaway) and partial demolition of the upper floors at 7-9 Piccadilly to provide for the development of a six storey of office development (Use Class E(g) above the retained commercial units at ground floor, together with rooftop amenity area, cycle parking, public realm improvements and associated works. The proposal includes upgraded

facades to Piccadilly alongside a new frontage an access (pedestrian and servicing) to Back Piccadilly to incorporate a new office entrance / reception area.

2.3 Site Description

The Site extends to approximately 0.07 hectares and comprises a three-storey building with commercial premises (currently comprising a Superdrug and Greggs store) at ground floor level with storage on the upper floors. The Site occupies a central location, with the principal elevation of the building fronting onto Piccadilly Gardens. The rear of the building (and service entrances) form part of Back Piccadilly and is visible along Tib Street. The Site is located within the Smithfield Conservation Area and immediately adjacent to the Stevenson Square Conservation Area, with several Grade II listed buildings located within the vicinity of the Site. The building itself which forms the Application Site is not listed. In terms of other statutory designations, the Site is not subject to any environmental designations or Tree Preservation Orders (TPOs). Furthermore, the Site is located within Flood Zone 1, the lowest flood risk category.

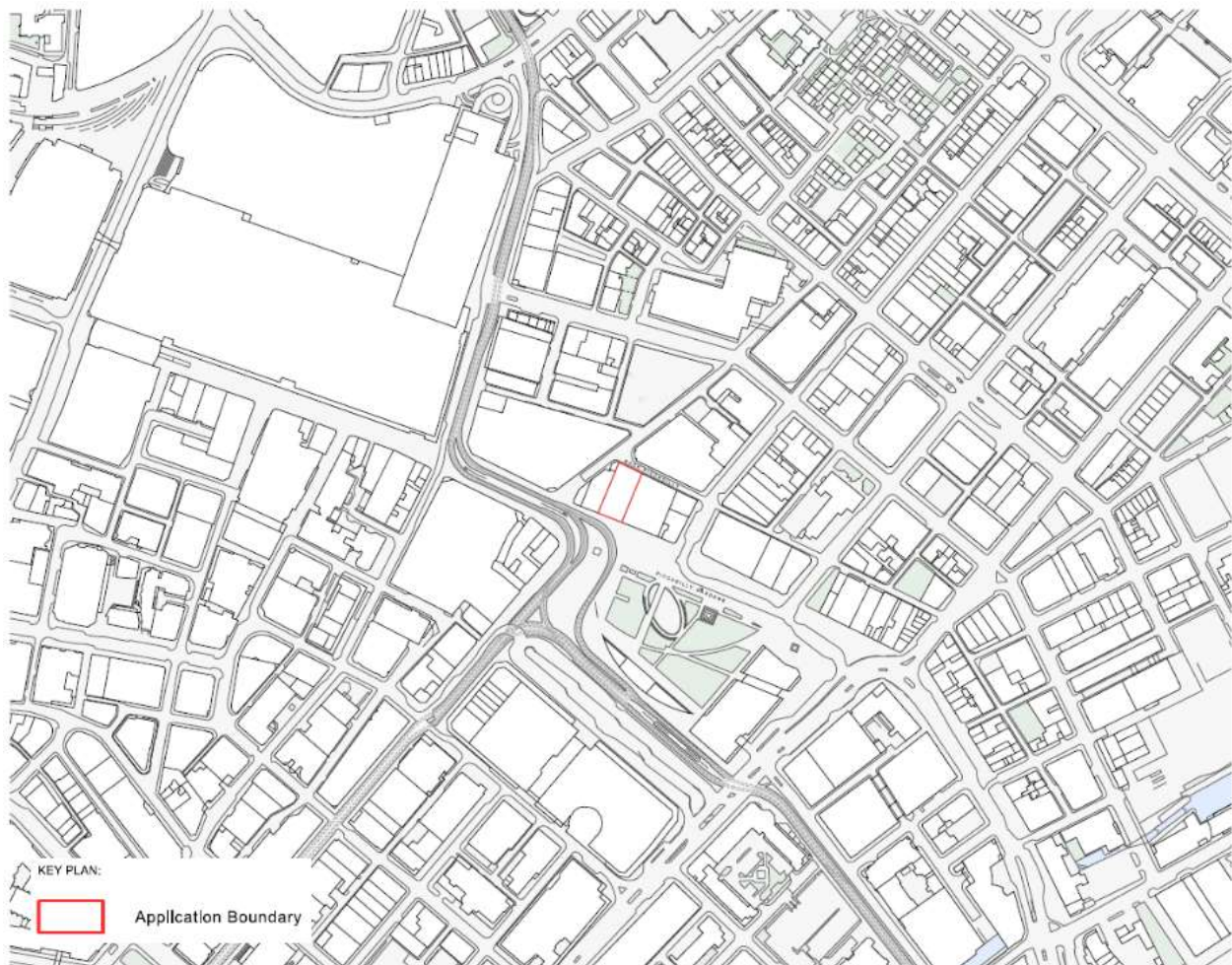


Figure 2.1: Site Location Plan (5plus, 06.07.21)

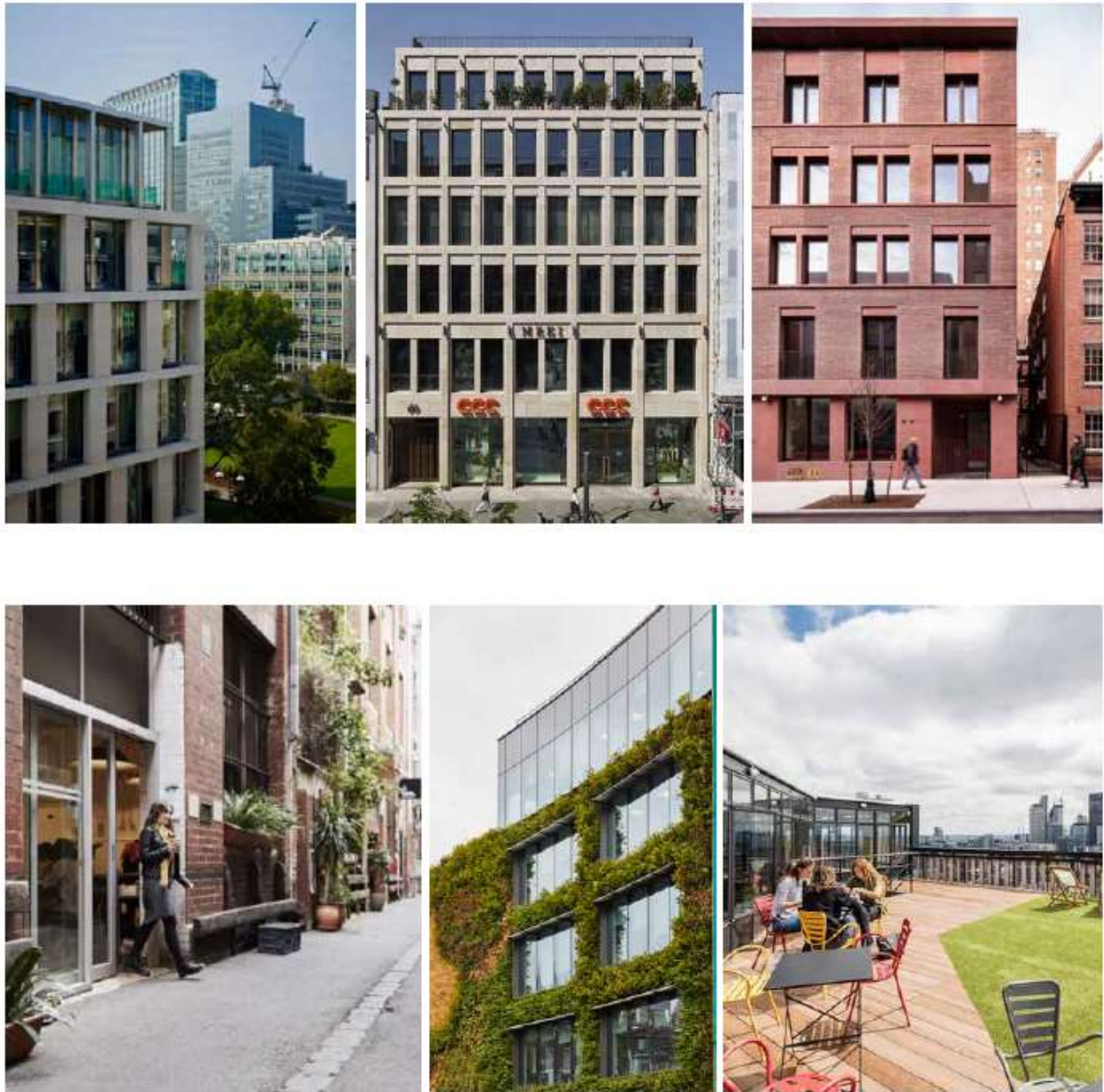


Figure 2.2: 7-9 Piccadilly Gardens – the Vision

3 Planning Policy Context

3.1 Scope of the Policy Review

To better understand the sustainability drivers for this development and set the policy context, a summary of key sustainable development policies at a national and local level has been provided.

3.2 National Policy

National Planning Policy Framework (Updated July 2021)

The National Planning Policy Framework and relevant planning practice guidance sets out the Government's planning policies for England. **The presumption in favour of sustainable development** is at the heart of the framework, cascading through to local plans and the approval process for planning applications.

Key issues addressed are summarised below:

Delivering a sufficient supply of homes	Achieving well-designed places
Building a strong, competitive economy	Protecting Green Belt land
Ensuring the vitality of town centres	Meeting the challenge of climate change, flooding and coastal change
Promoting healthy and safe communities	Conserving and enhancing the natural environment
Promoting sustainable transport	Conserving and enhancing the historic environment
Supporting high quality communications	Facilitating the sustainable use of minerals
Making effective use of land	

25 Year Environmental Plan (2018)

This plan sets out the Government's ambition to '*...champion sustainable development, lead in environmental science, innovate to achieve clean growth and increase resource efficiency to provide benefits to both our environment and economy*'.

The plan provides fresh impetus for the principles of sustainable development to be at the heart of decision-making, setting out clear objectives and common language for policy and decision makers to adopt

Policies and actions are structured around six key areas:

Chapter 1: Using and managing land sustainability
Chapter 2: recovering nature and enhancing the beauty of landscapes
Chapter 3: Connecting people with the environment to improve health & wellbeing
Chapter 4: Increasing resource efficiency and reducing pollution and waste
Chapter 5: Securing clean, healthy, productive and biologically diverse seas and oceans
Chapter 6: Protecting and improving our global environment

Climate Change Act 2008

The Climate Change Act sets out the UK Government's pathway to reduce greenhouse gas emissions by at least 80% (relative to 1990 levels) by 2050. This includes the requirements to set legally binding carbon budgets over five-year periods to act as intermediate milestones.

On 27th June 2019, a more ambitious target of net zero carbon by 2050 was adopted by the UK Government in response to public sentiment and the release of the Intergovernmental Panel on Climate Change (IPCC) Special Report on Global Warming of 1.5°C (October 2018).

3.3 Local Policy

3.3.1 Core Strategy Development Plan Document (Adopted 11th July 2012)

The Manchester Local Plan guides development within Manchester. The Core Strategy is the key document in Manchester's Local Plan, covering a period of 15 years from 2012 to 2027. It sets out the long-term strategic policies for Manchester's future development, forming the framework for planning applications.

Sustainability cuts across the objectives set out within the Core Strategy. A summary of key policies relevant to the Environmental Standards Statement are summarised below:

Policy Ref	Summary of Requirements
DM1 Development Management	BREEAM certification
EN4 Reducing CO2 Emissions by Enabling Low and Zero Carbon Development	- Apply principles of the Energy Hierarchy - Use of building materials with low embodied carbon
EN 6 Target Framework for CO2 reductions from low or zero carbon energy supplies	10% CO₂ emissions betterment on Part L 2010
EN 8 Adaptation to Climate Change	- Minimise flood risk - Reduction in urban heat island effect through use of Green Infrastructure - Control overheating in buildings through passive design - Linked and diverse green space to assist species to adapt
EN 9 Green Infrastructure	- Maintain and enhance green infrastructure where possible - Encouragement of green roofs, green walls, tree planting and other forms of green infrastructure to allow for the adaptation to climate change in heavily urbanised areas.
EN 14 Flood Risk	- Flood risk assessment in line with PPS25 - Minimise surface water run-off, through SuDS and Green Infrastructure
16 Air Quality	Take measures to minimise and mitigate the impact of emissions from traffic and combustion plant resulting from the development
EN 17 Water Quality	Avoid adverse impact on water quality, including during construction
EN 19 Waste	- Apply principles of the waste hierarchy (prevention, reduction, re-use, recycling/composting, energy recovery, final disposal) - Waste management plan to minimise construction and demolition waste
T1 Sustainable Transport	Encourage modal shift away from car travel to public transport, cycling and walking

3.3.2 Guide to Development in Manchester Supplementary Planning Document and Planning Guidance (Adopted April 2017)

The Guide to Development in Manchester is effectively a hybrid document bringing together all the development principles that assist in creating a city which people choose to live, learn, work and relax. It does not create new planning policy but rather complements existing policies by providing additional guidance on compliance. Where policies from the former Unitary Development Plan (UDP) are referenced, these are superseded by the Core Strategy. Otherwise, the principles and guidance on the Environmental Standards Statement remain current and complimentary to the Local Plan.

'Section 4 Environmental Standards' sets out the Council's commitment to making Manchester "the Greenest City in Britain". An Environmental Standards Statement is required to accompany all planning applications, demonstrating the required environmental standards under the following headings have been met:

- Energy efficiency & Renewable energy
- Environmental design
- Water management and weather resilience
- Waste management
- Construction management
- Biodiversity
- Climate resilience

In addition, the guide sets out the requirement to achieve at least BREEAM Very Good for all non-residential developments.

3.3.3 Our Manchester Strategy 2016-25 & Manchester Zero Carbon Commitment

Following on from the city-wide consultation in 2015 with residents and businesses on what the vision for Manchester should look like, Our Manchester Strategy 2016-25 was published. Approximately one-third of the total responses were focused on climate change action and environmental sustainability. As a result, commitment to climate change is firmly embedded in the strategy and the Manchester Climate Change Board (MCCB) was formed.

2018 became a significant milestone for climate change action in Manchester. Science-based targets were proposed for Manchester and adopted by Manchester City Council on 14th November 2018. Notably, Manchester is committed to be zero carbon by 2038, with 10 MCCB Pioneers signed to demonstrate commitment to take immediate action.

3.3.4 Manchester City Council Climate Emergency

On the 10th July 2019, a motion asking Manchester City Council to formally declare a climate emergency was unanimously agreed. The motion declares that climate change is a serious risk to Manchester's future and committed to embedding the issue as an integral part of council decision-making - making sure that all key decisions are taken with the city's target of becoming zero-carbon by 2038 in mind. Whilst not formally translated into changes to the planning policy yet, it further strengthens the Manchester Climate Change Framework 2020-25.

4 Environmental Standards Review

4.1 Overview

This section summarises how the Proposed Development has, as a minimum, responded to Section 4 Environmental Standards of the Guide to Development in Manchester Supplementary Planning Document and Planning Guidance (Adopted April 2007) and environmental sustainability policies set out in the Core Strategy (2012). In addition, narrative is included on how the Proposed Development is responding to the Manchester Climate Change Framework 2020-25 (2020) and the citywide target of zero carbon by 2038.

As environmental sustainability cuts across a number of issues and disciplines, references have been made to accompanying planning submission documents for technical details. Summaries of these documents against the policies set out in the Core Strategy are provided below, organised under the Section 4 Environmental Standards headings within the Guide to Development in Manchester.

4.2 Energy Efficiency and Renewable Energy

Policy EN4 Reducing CO₂ Emissions by Enabling Low and Zero Carbon Development

The Energy Strategy for the Development entails reducing the need for energy through passive fabric improvements, followed by high efficiency building services and then the application of low carbon technologies. The Development will be an all-electric design, so avoiding the use of natural gas fossil fuel within the building. This will enable the Development to make use of the rapidly decarbonising national grid electricity and so progress towards net zero carbon in operation in-line with the decarbonising national grid.

The Development is not in a location where proximity to a heat network provides the right conditions to support district heating, therefore the Development is being assessed against Target Two which requires a 10% reduction in carbon emissions over the Part L 2010 notional baseline. The Energy Strategy confirms that the Development exceeds Part L 2013 by 8.2% and Part L 2010 by 12.2% exceeding the reduction target set in Policy EN 6: Target CO₂ reductions.

The Energy Strategy proposes the following:

Passive design

- Enhanced thermal insulation that exceeds the minimum requirements of the Building Regulations
- Targeting low air infiltration rates to reduce heat losses and the overall energy consumption
- Use of high-performance glazing to minimise both heat losses and gains, whilst permitting good daylight
- Opening windows to minimise reliance of mechanical ventilation
- Introduce of a lightwell in the heart of the building to maximise daylight within the accommodation

Energy efficiency features

- Mixed mode ventilation strategy to the office accommodation, so reducing the demand for mechanical cooling
- Demand controlled mechanical ventilation operating on CO₂ levels within the offices
- High efficiency LED lighting with automatic controls wherever appropriate
- Extensive sub-metering to assist with energy monitoring and improvements

Reference should be made to the following documents for further details:

- Energy Statement (Buro Happold)

Policy EN 6 Target Framework for CO₂ reductions from low or zero carbon energy supplies

Renewable and low carbon energy

Several low and zero carbon technologies have been considered. Due to the nature of the building and the context of the site, air source heat pumps are the preferred low carbon technology. Air source heat pumps themselves are classed as a zero-emission, renewable technology as they generate heat from external air using grid electricity without combusting fuel on site.

Reference should be made to the following documents for further details:

- Energy statement (Buro Happold)

4.3 Environmental Design

The client is committed to achieving a minimum BREEAM NC 2018 rating of Very Good for the new build part of the development, in line with the requirements set out in the Manchester Guide to Development (2007). A copy of the BREEAM pre-assessment is included in Appendix A. BREEAM will be used as a framework to drive industry best practice in environmental performance demonstrating commitment to the issues outlined in Core Policy DM 1 Development Management. Key headlines on how the development has addressed Environmental Design are summarised below.

Sustainable and Efficient Use of Materials

Reducing the environmental and social impact of the material used for the development are being guided by the BREEAM material and waste section, which align with the principles of a circular economy. Refer to the Waste Management section (Section 4.5) below for waste commitments as informed by BREEAM and architectural considerations for materials and circular economy.

Policy EN 16 Air Quality

Air quality impacts

An Air Quality Assessment has been undertaken for the Proposed Development, investigating the air quality impacts during both the construction phase and the operational phase of the Proposed Development.

Following the construction dust assessment, the Site is found to be at worst 'Low Risk' in relation to dust soiling effects on people and property, and 'Negligible' human health impacts. Providing effective mitigation measures are implemented, residual impacts from dust emissions during the construction phase would be 'not significant'.

Construction dust mitigation measures include:

- Clear communication with assigned responsibility for air quality and dust issues on the site boundary
- Regular site inspections with increased frequency when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions
- No idling policy and preference for electric or battery powered equipment

- The use of cutting, grinding and sawing equipment only when fitted or in conjunction with suitable dust suppression techniques
- Minimising drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment, and use fine water sprays on such equipment whenever appropriate
- Carrying out dust-causing activities away from receptors with screen or barriers around them in place
- Keeping the complaints log for detail on incidences and resolutions
- Use of water-assisted dust sweeper(s) on the access and local roads and use of wheel washing system

The road traffic impacts associated with the operation of the Site can be considered as having an insignificant effect on local air quality. As such, long-term scheme-specific mitigation measures in relation to operational effects arising from road traffic emissions are therefore not considered to be necessary.

Reference should be made to the following documents for further details:

- Air Quality Assessment (SLR)

Responsible sourcing of materials

The Development will encourage the selection of products that involve lower levels of negative environmental, economic and social impact through actively seeking products that have been independently verified through industry recognised responsible sourcing standards (e.g. BES 6001, ISO 14001, FSC).

Policy T1 Sustainable Transport

Sustainable travel measures

Overall, the development site benefits from accessibility to a range of sustainable modes of travel, including walking routes, cycle routes and public transport services, which collectively offer an alternative to private car trips. Due to the site's highly accessible location within Manchester City Centre, the site will continue to be a 'car-free' development, with no car parking provision on-site but bicycle storage and shower facilities are proposed to enhance the building and promote sustainable travel by non-car modes.

A project specific Travel Plan has been prepared which provides a strategy for managing travel demand and involves a dynamic process of implementation, monitoring and review to ensure that the Proposed Development is sustainable over long-term. The physical and management measures to promote sustainable transport include:

- Promotion and Marketing – employees will be made available of the existence of the Transport Plan upon commencement of their employment.
- Travel Database – the staff will be asked to complete a travel questionnaire on year 2, 3 and 5 during the 5-year period in order to measure the success of the Travel Plan
- Encouraging Walking – information and advice concerning safe pedestrian routes to and from the site for the workers
- Encouraging Cycling – information and advice concerning the local cycle routes / facilities accessible from the development and other relevant information such as bicycle purchase / repair for the workers
- Promoting Public Transport – provision of up-to-date public transport frequency information for the workers
- Promoting Car Sharing and Car Hire – introduction of a car sharing scheme
- Liaising with Stakeholders – consultation with the local planning authorities and local public transport operators to agree measures to meet the Travel Plan aims, objectives and targets

- Reporting – the Travel Plan reviews will be undertaken at Year 2, Year 3 and Year 5, following the staff travel surveys

Reference should be made to the following documents for further details:

- Transport Statement (Mode Consulting)
- Travel Plan (Mode Consulting)

4.4 Water Management and Weather Resilience

Policy EN 17 Water Quality

Surface water

The Environment Agency's flood map confirms that the development site is located within Flood Zone 1, which is an area with a low probability of flooding. The surface water is to be attenuated using a blue roof at seventh floor level, resulting in a 63% reduction in surface water discharge from the brownfield site, thereby reducing the risk of flooding within the local area. The surface water system will accommodate the 1:100-year return period with a 40% allowance for climate change.

Reference should be made to the following documents for further details:

- Surface Water Means of Disposal Report (Axiom)

Water Efficiency

Water efficiency within the building will be driven by industry best practice outlined in the Water section of BREEAM. The development seeks to reduce potable water demand by 40% against a baseline building through specification of water efficient sanitaryware. This will be further complemented with flow control devices and water meters for consumption monitoring in-use. The selection of drought tolerant plant species for the green wall (if installed) will be encouraged as well as the use of water efficient irrigation systems, if required.

Reference should be made to the following documents for further details:

- BREEAM Pre-assessment (Buro Happold)

4.5 Waste Management

Policy EN 19 Waste

Material efficient design

The fundamental principle of the design is to retain as much material as possible, favouring re-use over recycling in the first instance. The proposal retains elements of the structure and circulation on the basement, ground and first floors. Where items are to be replaced, such as the façade, low-impact materials have been specified, with more detail on the credentials to be developed in the later design phase.

At the time of the ESS issue, the stone system to the Piccadilly Gardens façade has been selected for durability and low weight. The durability reduces the need for maintenance and or replacement. The low weight allows use of the existing structure on the lower levels, and a lighter steel frame to the new areas. This reduces the impact of the steel in terms of quantity, embodied carbon and delivery miles.

The panel sizes are in development, but have been provisionally designed to minimise cutting, reducing wastage and the volume of materials required.

The specification for the remainder of the project is to be developed but has the potential to incorporate recycled materials where appropriate.

Reference should be made to the following documents for further details:

- Design and Access statement (5Plus)

Construction waste management

Demolition and construction waste will be managed through the BREEAM credits, Wst 01 Construction Waste Management. Key targets committee to include:

- Non-hazardous construction waste (excluding demolition and excavation waste) not to exceed resource efficiency benchmark of 6.5 tonnes (or 7.5 m3) of construction waste per 100 m2 of gross internal floor area (GIFA).
- At least 80% (tonnage) of non-demolition construction waste to be diverted from landfill.
- At least 90% (tonnage) of demolition waste to be diverted from landfill.

A Resource Management Plan (RMP) will be developed, defining:

- Target benchmarks for resource efficiency in accordance with best practice
- Procedures and commitments to minimise non-hazardous construction waste at design stage
- Procedures for minimising hazardous waste
- Monitoring, measuring, and reporting of hazardous and non-hazardous site waste production

The RMP will be developed in accordance with guidance from Defra (Department of Environment, Food and Rural Affairs) or BRE (Building Research Establishment Ltd).

All development waste will be managed in line with the waste hierarchy prioritising waste prevention and reuse, followed by recycling, then energy recovery, and last of all disposal (e.g. landfill).

Reference should be made to the following documents for further details:

- BREEAM Pre-assessment (Buro Happold)

Responsible sourcing of materials

The Development will encourage the selection of products that involve lower levels of negative environmental, economic and social impact through actively seeking products that have been independently verified through industry recognised responsible sourcing standards (e.g. BES 6001, ISO 14001, FSC).

Durability and resilience

Appropriate measures to limit material degradation and damage to exposed elements of the building will be explored, reducing the need to repair and replace materials. Appropriate measures will be determined by reviewing the following information:

- What factor the element will withstand
- How the element has been designed to withstand it

- Access where an element will require regular maintenance

Durable and resilient building elements will result in fewer replacements and less maintenance, reducing the production of waste by the Development as well as its whole life carbon when the Development is occupied.

Reference should be made to the following documents for further details:

- BREEAM Pre-assessment (Buro Happold)

Operational waste

Refuse will be stored within the basement bin store, with access from the communal corridor for all tenants. On collection day, the management company will collect the bins and bring them, via the goods lift, to the kerbside on Back Piccadilly for collection. Management will then return the bins to the bin store.

50% of bin provision will be dedicated to recycling, as instructed by Manchester City Council GD04 Waste Storage and Collection Guidance for New Developments (v6).

The servicing, delivery and waste collection arrangement to the building on Back Piccadilly will remain as existing.

Reference should be made to the following documents for further details:

- BREEAM Pre-assessment (Buro Happold)
- Design and Access statement (5Plus)
- Transport statement (Mode Consulting)

4.6 Construction Management

Construction impacts will be minimised through Contractor compliance with BREEAM and the Construction Strategy, notably:

- Operate an Environmental Management System
- Adopt responsible construction management practices, including registration with the Considerate Constructor Scheme and implementation of pollution prevention policies
- Monitoring of construction site energy and water consumption
- Recording of CO₂ emissions associated with construction site vehicles (deliveries and waste removal)
- Implementation of a Sustainable Procurement Plan to ensure key materials are responsibly sourced, including timber

The impact of construction waste will also be monitored through BREEAM. Contractual targets will be set to minimise the generation of construction waste, and a Resource Management Plan required before commencement on site to set out how any waste produced will be diverted from landfill through consideration of re-use and recycling opportunities.

Reference should be made to the following documents for further details:

- BREEAM Pre-assessment (Buro Happold)
- Construction Strategy (Axiom / Thackerey Group / Contractor), when developed

4.7 Biodiversity

A Preliminary Roost Assessment for the Site has been carried out by an Ecologist, with the survey being completed on 18/06/2021. The aim of the assessment was to determine the presence or evaluate the likelihood of the presence of roosting bats, and to gain an understanding of how they could use the site. To achieve this, the following steps have been taken:

- A desk study has been carried out.
- A field survey has been undertaken, including an external survey and internal inspection where possible.
- An outline of likely impacts on any known roosts has been provided, based on current development proposals.
- Recommendations for further survey and assessment have been made, along with advice on the requirements of a European protected species mitigation licence (EPSML) application if appropriate.

The survey results demonstrated that the building has negligible value for roosting bats and that no evidence of nesting birds was found.

In response to the survey results NPPF (2019), the development will deliver 2x bat boxes and 2x bird boxes, contributing to the enhancement of the site ecology. Similarly, additional planting will be proposed where practicable, with a living green wall and planter proposed to the Back Piccadilly elevation. Planting specification is to be developed, but could include native flora to improve local biodiversity.

Reference should be made to the following documents for further details:

- Preliminary Roost Assessment Survey (Arbtech)

4.8 Adaptation to Climate Change

Policy EN 8 Adaptation to Climate Change

The design team acknowledges that climate change presents one of the biggest global challenges of our time and welcome the leadership demonstrated by the Council by encouraging local solutions through Core Strategy Policy EN 8 Adaptation to Climate Change. Steps taken to increase climate resilience of this development include:

- Use of high-performance glazing to minimise both heat losses and gains, whilst permitting good daylight.
- Introduction of a lightwell to assist with natural light on a deep floorplate, whilst mitigating potential overheating from the southern aspect.
- Recessed glazing providing (some) solar shading to the southern aspect (*façade detailing is to be developed at as the design progresses*).
- The use of openable windows to minimise reliance on mechanical ventilation.
- Low infiltration rates to reduce heat losses and the overall energy consumption.
- All-electric design including the use of low and zero carbon technologies eliminating reliance on fossil fuels for energy generation.
- Introduction of a blue roof into the development reducing the risk of flooding within the local area.

In addition, a climate change adaptation strategy appraisal will be carried out by the end of RIBA Stage 2, in accordance with BREEAM Wst 05. The assessment will cover the installation of building services and renewable systems, as well as structural and fabric resilience aspects.

Reference should be made to the following documents for further details:

- Design and Access statement (5Plus)
- Surface Water Means of Disposal Report (Axiom)
- BREEAM Pre-assessment (Buro Happold)

5 Conclusion

This Environmental Standards Statement seeks to demonstrate compliance against current Manchester City Council planning policy. The Environmental Standards Statement has been structured around seven topics, in line with the Council's requirement for environmental design:

- Energy efficiency and renewable energy
- Environmental design
- Water management and weather resilience
- Waste management
- Construction management
- Biodiversity
- Adaptation to climate change

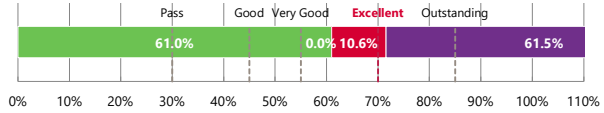
It can be seen from the project responses that the Development is employing best practice environmental design strategies, demonstrating that the Development has a clear strategy for climate change mitigation and adaptation throughout the whole life of the Development, minimising its vulnerability to climate change impacts and contributing to the Council's commitment to achieve 'net zero' carbon emissions by 2038.

In particular, the Development is actively targeting the following environmental standards, in line with the Core Strategy:

- Commitment to a minimum rating of BREEAM Very Good assessed against BREEAM NC 2018 for the new build part of the development.
- Commitment to better the current Part L 2013 by a minimum of 6%, which is equivalent to 10% under Part L 2010 through adopting the 'mean-lean-green' approach.

Appendix A BREEAM Pre-Assessment

BREEAM UK New Construction 2018



Project name 7-9 Piccadilly, Manchester
 Project Type Office - Shell and core
 BRE Registration Reference TBC
 Assessment stage Pre-assessment
 Date 02/12/2021
 Tracker Revision 2

BREEAM SCORE SUMMARY		
MINIMUM REQUIRED	55.0%	Very Good
TARGETED - BASELINE	61.0%	Very Good
TARGETED - MEDIUM RISK	61.0%	Very Good
POTENTIAL	71.6%	Excellent

Mandatory for Very Good

BREEAM Credits	RIBA Stage	Available Credits	% Score Value	N/A	Targeted - Baseline	Targeted - Medium Risk	Potential	Not Targeted	Ownership
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MANAGEMENT

Man 01 Project Brief and Design		Credit Aim: Encouraging an integrated design process and considering BREEAM performance targets early to influence decision-making and optimise building performance, while avoiding unnecessary costs.							
Project delivery planning	Stage 2	1	0.73%		1				Thackeray Investments
Stakeholder consultation (interested parties)	Stage 2 Stage 4	1	0.73%		1				Barton Willmore
Prerequisite - BREEAM AP (Concept and Developed Design)		Achieved ?			Yes				BH Sustainability
BREEAM AP (Concept Design)	Stage 1 Stage 2	1	0.73%		1				BH Sustainability
BREEAM AP (Developed Design)	Stage 2 Stage 3 Stage 4	1	0.73%		1				BH Sustainability
Man 02 Life Cycle Cost and Service Life Planning		Credit Aim: Promoting the business case for sustainable buildings through the enhanced understanding of capital cost and improving design, specification, maintenance and operation, by encouraging the use of life cycle costing.							
Elemental LCC	Stage 2	2	1.47%				2		Cost Consultant
Component level LCC options appraisal	Stage 4	1	0.73%				1		Cost Consultant
Capital cost reporting		1	0.73%		1				Cost Consultant
Man 03 Responsible Construction Practices		Credit Aim: Encouraging construction sites to be managed in an environmentally and socially considerate and responsible manner and monitoring to encourage continuous improvements and utility consumption reduction.							
Prerequisite - Legally harvested and traded timber		Achieved ?			Yes				Principal Contractor
Environmental management		1	0.73%		1				Principal Contractor
Prerequisite - BREEAM AP (site)		Achieved ?			Yes				Principal Contractor
BREEAM AP (site)	Stage 5 Stage 6	1	0.73%		1				Principal Contractor
Responsible construction management		2	1.47%		2				Principal Contractor
Prerequisite - Monitoring of construction site impacts		Achieved ?			Yes				Principal Contractor
Utility consumption (energy and water)		1	0.73%		1				Principal Contractor
Transport of construction materials and waste		1	0.73%		1				Principal Contractor
Exemplary - Responsible construction management		1	1.00%		1				Principal Contractor
Man 04 Commissioning and Handover		Credit Aim: Encouraging a well-managed handover and commissioning process, which will ensure building services and fabric defects are identified and rectified and ensuring that the building responds to the needs of the occupants.							
Commissioning - testing schedule and responsibilities		1	0.73%		1				Principal Contractor
Commissioning - design and preparation	Stage 3 Stage 4	1	0.73%				1		n/a
Testing and inspecting building fabric		1	0.73%				1		n/a
Handover		1	0.73%		1				Principal Contractor

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HEALTH & WELLBEING									
Hea 01 Visual comfort	Credit Aim: Providing occupants with the conditions that facilitate good visual comfort by designing out the potential for glare, achieving good practice daylight factors and having an adequate view out and designing internal and external lighting systems to provide appropriate illuminance (lux) levels, thereby giving a more comfortable environment for occupants Internal lighting is zoned to allow for occupant control.								
Daylighting		2	2.67%				2		5plus
View Out		1	1.33%		1				5plus
Internal and external lighting levels, zoning and control		1	1.33%		1				BH MEP
Exemplary - Daylighting		1	1.00%					1	n/a
Exemplary - Internal and external lighting levels, zoning and control		1	1.00%					1	n/a
Hea 02 Indoor air quality	Credit Aim: Facilitating good indoor air quality by considering indoor air pollution early in the design process so that a mitigation strategy can be put in place, managing harmful emissions from construction products by specifying finishes and products that have been tested in accordance with the appropriate standards and specifying an appropriate ventilation strategy that maintains good indoor air quality.								
Prerequisite - Indoor air quality		Achieved ?						Yes	IAQ consultant
Ventilation		1	1.33%					1	BH MEP
Hea 04 Thermal Comfort	Credit Aim: Thermal modelling informs the building design to provide a comfortable thermal environment that considers current climatic conditions, and projected climate change scenario conditions and giving occupants control over their environment through appropriate temperature control strategies and thermal zoning.								
Thermal modelling		1	1.33%		1				BH MEP
Design for future thermal comfort		1	1.33%		1				BH MEP
Hea 05 Acoustic performance	Credit Aim: Enabling occupants to experience best practice acoustic performance levels appropriate to the functional activities in occupied spaces.								
Acoustic performance -Sound insulation -Indoor ambient noise level -Room acoustics		1	1.33%		1				KP Acoustics / Principal Contractor
Hea 06 Security	Credit Aim: Designing the building to consider and take into account security needs to ensure occupants safety and wellbeing.								
Security of site and building	Stage 2	1	1.33%		1				Greater Manchester Police
Exemplary - Security of site and building		1	1.00%					1	n/a
Hea 07 Safe and healthy surroundings	Credit Aim: Providing external site areas that are safe for occupant use and enhancing the wellbeing of building users by giving access to an outdoor space.								
Safe access		1	1.33%		1				Landscape Architect / Transport
Outside space	Stage 2	1	1.33%		1				5plus / Landscape Architect

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ENERGY									
Ene 01 Reduction of energy and CO₂ emissions	Credit Aim: Encouraging the design of energy efficient buildings with energy performance above national building regulations and encouraging the accurate modelling of operational energy consumption								
Energy performance		9	12.60%		1			8	BH MEP
Prediction of operational energy consumption		4	5.60%					4	Energy Specialist
Exemplary - Energy performance		3	3.00%					3	n/a
Ene 02 Energy monitoring	Credit Aim: Helping to identify and reduce high energy demands where possible by accurate measurement of the energy consumption of the building by end use.								
Sub-metering of end-use categories		1	1.40%		1				BH MEP
Sub-metering of high energy load and tenancy areas		1	1.40%		1				BH MEP
Ene 03 External lighting	Credit Aim: Reducing the building's energy consumption through the specification of energy efficient external lighting.								
External lighting specification		1	1.40%	1					n/a
Ene 04 Low Carbon Design	Credit Aim: Reducing the building's energy consumption through the adoption of passive design solutions, free cooling and low or zero carbon (LZC) energy sources.								
Passive design analysis	Stage 2	1	1.40%					1	n/a
Free cooling		1	1.40%					1	n/a
Low and zero carbon technologies	Stage 2	1	1.40%		1				BH MEP
Ene 06 Energy efficient transportation systems	Credit Aim: Reducing the building's energy consumption by specifying the optimum number and size of energy efficient transportation systems.								
Energy consumption		1	1.40%		1				Lift Supplier
Energy efficient features		1	1.40%	1	1				Lift Supplier

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TRANSPORT									
Tra 01 Transport assessment and travel plan	Credit Aim: Recognising developments in proximity to good public transport networks, thereby helping to reduce transport-related pollution and congestion.								
Travel plan	Stage 2	2	1.92%		2				Mode Consulting
Tra 02 Sustainable transport measures	Credit Aim: Recognising developments in close proximity of, and accessible to, local amenities which are likely to be frequently required and used by building occupants.								
Prerequisite - Achieve Tra 01		Achieved ?			Yes				Mode Consulting
Transport options implementation		10	9.58%		10				Mode Consulting / 5plus / BH MEP
WATER									
Wat 01 Water Consumption	Credit Aim: Reducing the demand for potable water through the provision of efficient sanitary fittings, rainwater collection and water recycling systems.								
Water consumption		5	4.38%		3		1	1	5plus / BH MEP
Exemplary - Water consumption		1	1.00%					1	n/a
Wat 02 Water Monitoring	Credit Aim: Specification of water meters to allow for management and monitoring of water use in the building. This encourages reductions in water use by identifying areas of high usage and investigating potential causes.								
Water monitoring		1	0.88%		1				BH MEP
Wat 03 Water Leak Detection	Credit Aim: Reducing the unintended water consumption due to leaks by installing leak detection systems and flow control devices.								
Leak detection system		1	0.88%				1		n/a
Flow control devices		1	0.88%		1				BH MEP
Wat 04 Water Efficient Equipment	Credit Aim: Reducing water consumption for non-domestic scale, non-sanitary water uses by specifying efficient systems and improving the design efficiency of any water-using processes.								
Water efficient equipment		1	0.88%				1		Landscape Architect

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MATERIALS									
Mat 01 Building Life Cycle Assessment (LCA)	Credit Aim: Reducing buildings' environmental life cycle impacts through conducting Life Cycle Assessment and integrating its outcomes in the design decision-making process.								
Superstructure	Stage 2	6	7.50%					6	5plus
Substructure and hard landscaping options appraisal	Stage 2	1	1.25%					1	5plus / Landscape Architect
Exemplary - Core building services		1	1.00%					1	n/a
Exemplary - LCA and LCC alignment		1	1.00%					1	n/a
Exemplary - Third party verification		1	1.00%					1	n/a
Mat 02 Environment Product Declarations (EPD)	Credit Aim: To encourage availability of robust and comparable data on the impacts of construction products by rewarding the specification of products with environmental products declarations.								
Specification of products with a recognised environmental product declaration (EPD)		1	1.25%					1	5plus / Axiom
Mat 03 Responsible sourcing of materials	Credit Aim: Recognising and encouraging responsible sourcing of construction products. This includes the source of products and the intermediary companies processing and transporting the product to site.								
Prerequisite - Legally harvested and traded timber		Achieved ?			Yes				Principal Contractor
Enabling sustainable procurement	Stage 2	1	1.25%		1				Principal Contractor
Measuring responsible sourcing		3	3.75%		2			1	5plus / BH MEP / Principal Contractor
Exemplary - Measuring responsible sourcing		1	1.25%					1	n/a
Mat 05 Designing for durability and resilience	Credit Aim: Increasing the lifespan of the building through designing for durability and protection from degradation and specifying appropriate construction products.								
Protecting vulnerable parts of the building from damage		1	1.25%		1				5plus / Axiom
Protecting exposed parts of the building from material degradation									5plus / Axiom
Mat 06 Material Efficiency	Credit Aim: Encouraging the reduction of environmental impacts through optimising the use of materials during all stages of the project.								
Material Efficiency (reduce/reuse/recycle)	Stages 1-6	1	1.25%					1	Design Team

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WASTE									
Wst 01 Construction waste management	Credit Aim: Improving resource efficiency through developing a pre-demolition audit and a Resource Management Plan, maximising the recovery of material during demolition and diverting non-hazardous waste from landfill.								
Pre-demolition audit	Stage 2	1	0.64%					1	Demolition Contractor
Construction resource efficiency		3	1.91%		2			1	Principal Contractor
Diversion of resources from landfill		1	0.64%		1				Principal Contractor
Exemplary - Construction resource efficiency and diversion from landfill		1	1.00%					1	n/a
Wst 02 Recycled and sustainably sourced aggregates	Credit Aim: Encouraging the use of recycled or secondary aggregate or aggregate types with lower environmental impact to reduce waste and optimise material efficiency.								
Prerequisite - Pre-demolition audit		Achieved ?						No	Demolition Contractor
Project sustainable aggregate points		1	0.64%					1	Axiom
Exemplary - Project sustainable aggregate points		1	1.00%					1	n/a
Wst 03 Operational waste	Credit Aim: Encouraging the diversion of operational waste from landfill through the provision of space and facilities allowing the segregation and storage of recyclable waste.								
Operational Waste		1	0.64%		1				5plus
Wst 05 Adaptation to climate change	Credit Aim: To encourage the specification and fitting of floor and ceiling finishes selected by the building occupant and therefore avoid unnecessary waste of materials.								
Resilience of structure, fabric, building services and renewables installation	Stage 2 Stage 4	1	0.64%		1				Design Team
Exemplary - Responding to climate change		1	1.00%					1	n/a
Wst 06 Design for disassembly and adaptability	Credit Aim: To encourage the specification and fitting of floor and ceiling finishes selected by the building occupant and therefore avoid unnecessary waste of materials.								
Design for disassembly and functional adaptability - recommendations	Stage 2	1	0.64%		1				Design Team
Design for disassembly and functional adaptability - implementation	Stage 4	1	0.64%		1				Design Team

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LAND USE AND ECOLOGY									
LE 01 Site selection	Credit Aim: Recognising the reuse of previously developed and contaminated land where appropriate remediation has taken place.								
Previously occupied land		1	1.15%		1				5plus
Contaminated land		1	1.15%					1	Axiom
LE 02 Identifying and understanding the risks and opportunities for the project	Credit Aim: Identifying and understanding the ecological risks and opportunities associated with the site to inform the determination of the strategic outcome for the site.								
Prerequisite - Assessment route selection		Achieved ?						No	ARB-Tech
Survey and evaluation	Stage 1	1	1.15%					1	ARB-Tech
Determining the ecological outcomes for the site		1	1.15%					1	ARB-Tech
Exemplary - Determining ecological outcomes for the site		1	1.15%					1	n/a
LE 03 Managing negative impacts on ecology	Credit Aim: Recognition of steps taken to avoid impacts on existing site ecology as far as possible.								
Prerequisite - Identification and understanding the risks and opportunities for the site		Achieved ?						No	ARB-Tech / Principal Contractor
Planning, liaison, implementation and data	Stage 2	1	1.15%					1	ARB-Tech / Principal Contractor
Managing negative impacts of the project		2	2.31%					2	ARB-Tech / Principal Contractor
LE 04 Change and enhancement of ecological value	Credit Aim: Recognition of steps taken to enhance site ecology.								
Prerequisite - Identifying and understanding the risks and opportunities for the project		Achieved ?						No	ARB-Tech / Principal Contractor
Liaison, implementation and data collation		1	1.15%					1	ARB-Tech / Principal Contractor
Enhancement of ecology		3	3.46%					3	ARB-Tech
Exemplary - Change in ecological value		1	1.15%					1	n/a
LE 05 Long term ecology management and maintenance	Credit Aim: Encouraging the long term maintenance and management of ecology on site to ensure both new and existing ecological features continue to thrive.								
Prerequisite - Roles and responsibilities, implementation, statutory obligations		Achieved ?						No	ARB-Tech / Principal Contractor
Planning, liaison, data, monitoring and review management and maintenance		1	1.15%					1	ARB-Tech / Principal Contractor
Landscape and ecology management plan (or similar) development		1	1.15%					1	ARB-Tech / Principal Contractor

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POLLUTION									
Pol 01 Impact of refrigerants	Credit Aim: Rewarding buildings that reduce the impact of refrigerant gas emissions.								
Prerequisite - Ammonia refrigerants		Achieved ?			Yes				BH MEP
Impact of refrigerant		2	1.64%				1	1	BH MEP
Leak detection		1	0.82%				1		BH MEP
Pol 02 Local air quality	Credit Aim: Recognising buildings which limit their impact on local air quality, by consideration of the combustion plant and fuel used on site.								
Local air quality		2	1.64%		2				BH MEP
Pol 03 Flood and surface water management	Credit Aim: Rewarding buildings and their sites that limit on-site and off-site local flooding and hence the damage this can cause.								
Prerequisite - Appropriate consultant		Achieved ?			Yes				Axiom
Flood Resilience		2	1.64%		2				Axiom
Prerequisite - Surface water run-off		Achieved ?			Yes				Axiom
Surface water run-off - Rate		1	0.82%		1				Axiom
Surface water run-off - Volume		1	0.82%					1	Axiom
Minimising watercourse pollution		1	0.82%					1	Axiom
Pol 04 Reduction of night time light pollution	Credit Aim: Avoiding or reducing the impact of night time light pollution, through careful design and specification of light sources.								
Reduction of night time light pollution		1	0.82%	1					BH MEP
Pol 05 Reduction of noise pollution	Credit Aim: Avoiding or reducing the impact of external noise from the building.								
Reduction of noise pollution		1	0.82%		1				KP Acoustics
INNOVATION									
Inn 01 Innovation	Credit Aim: To support innovation within the construction industry through the recognition of sustainability related benefits which are not rewarded by standard BREEAM issues.								
Exemplary level of performance in existing BREEAM issues		10	10.00%	2	1				See Relevant Issues Above
Approved Innovations								9	TI / Assessor

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