

NORTHUMBERLAND DEVELOPMENT PROJECT **HOTEL**

S73 APPLICATION

SUSTAINABILITY STATEMENT ADDENDUM

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0053214-BHE-ZZ-ZZ-RP-3513-0002

0053214

Revision P04

Revision	Description	Issued by	Date	Checked
P03	Final for issue	NW	26/7/23	NW
P04	Issue for Planning submission	BR	02/08/23	BR

[https://burohappold.sharepoint.com/sites/053214/05_Teams Files/Sustainability/Reports/230731 Issue for Legal review/230802_NDP Hotel_Sustainability Statement_P04.docx](https://burohappold.sharepoint.com/sites/053214/05_Teams%20Files/Sustainability/Reports/230731%20Issue%20for%20Legal%20review/230802_NDP%20Hotel_Sustainability%20Statement_P04.docx)

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1 Executive Summary

This Sustainability Statement Addendum has been prepared by Buro Happold on behalf of Tottenham Hotspur Property Company Limited ("THFC") (hereafter referred to 'the Applicant') in support of an application for minor material amendments to the London Borough of Haringey (LBH) made under Section 73 (S73) of the Town and Country Planning Act 1990 (as amended), following the grant of planning permission for the Northumberland Park Development ("the Site") on 15 April 2016 (LPA ref HGY/2015/3000).

This Sustainability Statement Addendum has also been developed to facilitate the embedding and reporting of project-wide efforts across different teams working on the Northumberland Park Development and should be read alongside other application documents including the Design and Access Statement, Whole Life Carbon Assessment and Energy Strategy Addendum.

The development of this assessment has involved various workshops, calls and correspondence with the design and project teams for the proposal, as well as the review and management of all minimum requirements and aspirational targets set by policy as well as the Applicant.

The Sustainability strategy for the site has been developed around eight key themes to set ambitious targets for the new building:

1. **Operational energy and carbon:** Performance modelling demonstrates that the NDP-Hotel project could achieve total site-wide Carbon Dioxide emission reductions of 50% compared to the 35% Part L 2021 baseline.
2. **Climate change resilience:** Climate change resilience is addressed through an overheating strategy which utilises dynamic thermal modelling. Due to acoustics constraints comfort cooling is provided. This will also provide mitigation against future weather predictions.
3. **Biodiversity:** Biodiversity is addressed by the enhancement of green infrastructure on site through urban greening as well as species protection measures.
4. **Health and wellbeing:** Health and wellbeing of site users and visitors is central to the design. Health and wellbeing strategies are addressed through the encouragement of an active outdoor lifestyle to promote physical and mental wellbeing. This is achieved through the promotion of active travel, urban greening and active playable spaces.
5. **Water and surface water run-off:** Key strategies include managing and reducing water consumption through the use of water efficient components and water recycling systems, as well as utilising Sustainable Urban Drainage Systems and the previously carried out Flood Risk Assessment.
6. **Air quality:** Key strategies include the assessment of the impact the development will have on local air quality both during and post construction, as well as mitigation measures to prevent poor air quality in the construction and completion of the site.
7. **Mobility and sustainable transport:** This is to be achieved by encouraging and increasing the use of public transport and sustainable forms of private transport, cycling, walking or non-emitting vehicles. Key strategies include a cycle to work scheme for staff and provision of cycle parking on site.
8. **Resources, materials, and waste:** The ultimate goal is to design out waste, keeping products in use so that nothing goes to waste. This includes embodied carbon reductions, which involves reducing the emissions associated with the construction of the buildings. Performance demonstrates that an overall embodied carbon value of 1203 kgCO₂e/m² GIA for modules A-C (excluding B6 and B7), this achieves the GLA benchmark of 1250kg CO₂e/m².

2 Introduction

2.1 Overview

This report is an Addendum to the original Sustainability Strategy produced for the Northumberland Park Development in 2015. It applies to the hotel building only and addresses any updates to policy and design since the original application.

As outlined above, this report has been prepared on behalf of the Applicant, in support of an application for minor material amendments to the LBH made under S73 of the Town and Country Planning Act 1990 (as amended), following the grant of planning permission for the NDP.

The NDP permission is a 'hybrid consent' ("the Hybrid Consent") which comprises of: full planning permission for Plot 1 (The Stadium), Plot 2 (The Tottenham Experience) and Plot 3 (Hotel); and outline planning permission for Plot 4 (The Extreme Sports Building), Plot 5 (The Residential Buildings and Flexible B1/D1 Space) and Plot 6 (The Community Health Building). This S73 Application proposes amendments focussed on Plot 3 (the "Plot 3 Site") and addresses any updates to policy and design since the original application.

The Plot 3 Site lies to the south-west corner of Tottenham Hotspur Stadium on the corner of Park Lane and Tottenham High Road. The proposed hotel building is illustrated in Figure 1.1. below.

2.2 Site Description

The Proposed Development described in this report is the hotel building which lies to the south-west corner of Tottenham Hotspur Stadium on the corner of Park Lane and Tottenham High Road.



Figure 2-1 The Proposed development

This S73 application seeks to enhance the deliverability of the proposals and respond to the evolving regeneration of the surrounding area. The changes to the Plot 3 hotel building relate to:

- Changes to the building form and layout
- Increase to the height of the building from 23 to 29 storeys
- An increase in the site wide hotel floorspace to 16,312 m2

The description of development is as follows:

"Application under Section 73 of the Town and Country Planning Act for v

variations to Condition A4 (Consented Drawings and Documents) and Condition A7 (Maximum Quantity/Density) of the hybrid planning permission HGY/2015/3000 (as amended) for the proposed demolition and comprehensive redevelopment of the Northumberland Park Development Project (the amendments consist of revisions to the design, height and maximum floorspace at Plot 3 Hotel and other changes)."

The following images show the typical floor plans of the hotel levels and the residential levels and are used to give the energy officer context of the scheme.



Figure 2-2 Typical hotel floor plan (Levels 2 to 10)

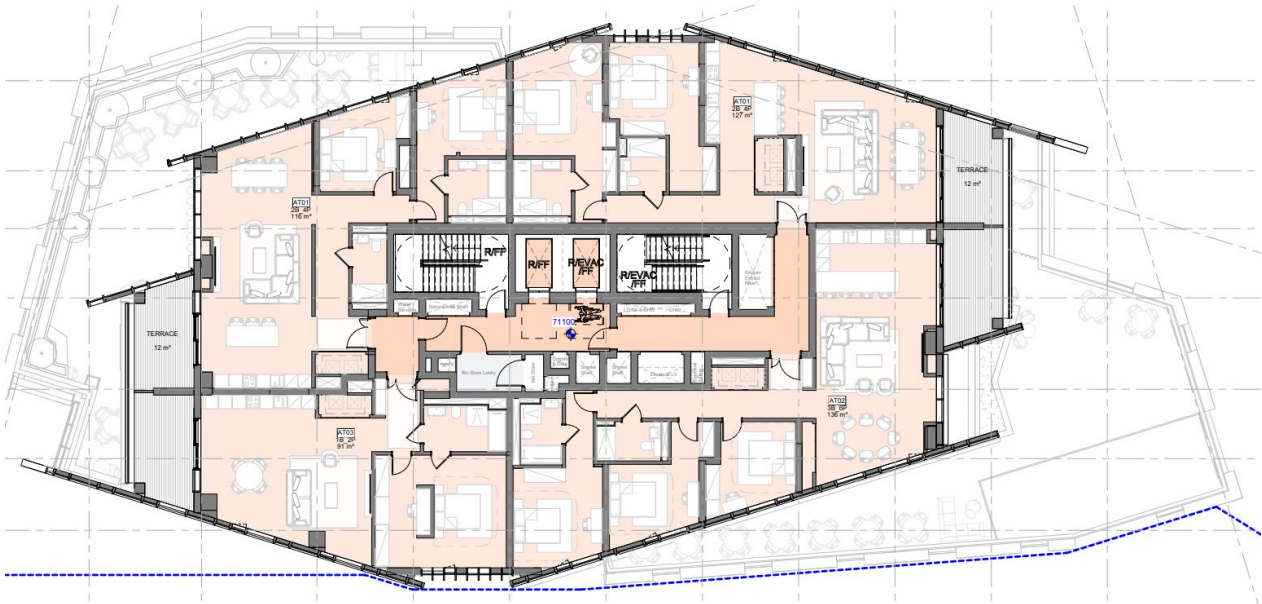


Figure 2-3 Typical residential floor plan (Levels 14 to 18)

2.3 Aims and vision

The Applicant is committed to playing a key role in the wider regeneration of the local area and the Northumberland Development Project has provided much strength to the development of the 20 year regeneration programme for Tottenham as led by Haringey Council. This programme sets out priorities for the area, based directly from feedback of the local community and businesses over the last few years. These are as listed below, with comments on how the NDP have contributed towards these aims:

Table 2-1 Council and development aims and visions

Haringey Council Priority Areas	NDP Hotel contribution
Improved access to jobs and business opportunities	In the first phase of the NDP, as per the Sustainability Statement dated 2015, over 400 new jobs and 100 new apprenticeships were created onsite and around the Borough. This figure is expected to increase significantly with the Stadium and Southern Development. Local businesses will benefit from the increased capacity of the stadium, and through the investment that the new hotel, residential blocks, THFC experience and extreme sports building will bring.
A fully connected community with even better transport links	The promotion and provision of low-carbon transport opportunities for residents through walking and cycling schemes, increasing accessibility to zero-carbon transport for residents.
A strong and healthy community	Health and wellbeing is emphasised on site, promoting biodiversity as well as active lifestyles through cycle and walking schemes .
Great places	The new development will encourage further investment in the local area.
The right investment and quality development	There has already been significant investment for the regeneration of Tottenham, which has only been boosted by the planned NDP Hotel development.

3 Policy and Drivers

This section outlines some of the key national, strategic and local policy frameworks relating to energy, carbon and sustainability, as well as standards set by the Applicant. As the NDP was granted consent in 2016, the policies and targets have changed since then. Therefore, the most up-to-date policy and drivers are covered in this section.

The Site is in the LBH and as such any development proposal will be determined against the following documents:

- LBH Strategic Policies 2013 (with alterations adopted July 2017) ("SP")
- LBH Development Management DPD (adopted July 2017) ("DM DPD")
- Site Allocations DPD (adopted July 2017) ("SA DPD")
- Tottenham Area Action Plan (adopted July 2017) ("TAAP")
- London Plan (March 2021) ("LP").

The National Planning Policy Framework ("NPPF") (July 2021) and accompanying Planning Practice Guidance ("PPG") are the principal material considerations in this case, alongside various Supplementary Planning Guidance/Documents ("SPDs/SPGs") as noted below. For sustainability, a key guidance document is the LBH Development Management DPD.

3.1 National Energy Policy and Guidance

3.1.1 The United Nations Paris Climate Agreement

The Paris Agreement is a major international climate action agreement to which the UK is signatory. The 196 countries under the agreement have committed to limit global warming to 2°C over pre-industrial levels and aim to safely adapt to any consequences of climate change. The UK ratified this in 2016.

While countries may set their own policies and targets (NDCs), these are assessed as to their level of ambition and to their progressive approach and must be tracked and published. The UK currently falls under NDCs produced collectively with the European Union. These commit to at least a 40% domestic reduction in GHG emissions by 2030 compared to 1990 (CAIT), including energy consumption and industrial processes. Though this calculation may change in light of Brexit, the UK will remain signatory to the Paris Agreement, with its NDC revised.

3.1.2 The National Planning Policy Framework, NPPF

The NPPF consolidates previously issued documents called Planning Policy Statements (PPS) and Planning Policy Guidance Notes (PPG). A greater focus is now placed on the dissemination of energy policy within regional development frameworks.

Within the NPPF's planning guidance relating to energy is set out in section 14 – "meeting the challenge of climate change, flooding and coastal change".

Additionally, paragraphs 7 and 8 of the NPPF highlight that the purpose of the planning system is to contribute to the achievement of sustainable development, which has the following three overarching objectives:

- *"an economic role – to help build a strong, responsive and competitive economy..."*

- *a social role – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations...*
- *an environmental role to contribute to protecting and enhancing our natural, built and historic environment..."*

The NPPF is underpinned by a presumption in favour of sustainable development. Paragraph 11 of the NPPF states that decisions should apply a presumption in favour of sustainable development and approve development proposals that accord with an up-to-date development plan without delay.

Paragraphs 81 and 83 of the NPPF are also relevant. These require policies and decisions to create the conditions for businesses to invest and expand, support economic growth and allow areas to build on their strengths.

3.1.3 Climate Change Act

The Climate Change Act 2008 established a legally binding target to reduce the UK's greenhouse gas emissions by at least 80% below 1990 levels by 2050. To drive progress and set the UK on a pathway towards this target, the Act introduced a system of carbon budgets which provide legally binding limits on the amount of emissions that may be produced in successive five-year periods, beginning in 2008.

The first three carbon budgets were set in law in May 2009 and require emissions to be reduced by at least 34% below base year levels in 2020. The fourth carbon budget, covering the period 2023–27, was set in law in June 2011 and requires emissions to be reduced by 50% below 1990 levels. The fifth carbon came into force in July 2016, limiting the budget for 2028–2032 of is 1,725 mega tonnes of carbon dioxide equivalent. This correlates to the reduction of 57% in greenhouse gas emissions compared to 1990 levels.

3.2 UK decarbonisation context

The UK became the first major economy in the world to pass laws to end its contribution to global warming by 2050. The target will require the UK to bring all greenhouse gas emissions to net zero by 2050, compared with the previous target of at least 80% reduction from 1990 levels.

Electricity grid decarbonisation

The carbon intensity of electricity in the UK has been reducing from 0.519 kg CO₂/ kWh to 0.233 kg CO₂/ kWh as per SAP methodologies 2012 and SAP 10. This is due to the closure of coal fired power stations and the increase in renewable energy. As a result, electricity is becoming a more feasible lower carbon fuel source compared to traditional gas combustion. This is also resulting in gas-fired CHP engines not providing the long-term carbon savings shown previously and going forward will be a high carbon technology based on Part L. These changes result in a difference in Part L carbon reductions shown by recent developments and for new ones coming forward now.

London Plan Policy is looking to push towards the future of low carbon heating, with the application of heat pumps, and therefore the GLA ask for the SAP 10 carbon factors to be used as these provide the most accurate representation of the latest carbon intensity of the grid.

3.3 Policy and Regulation Changes

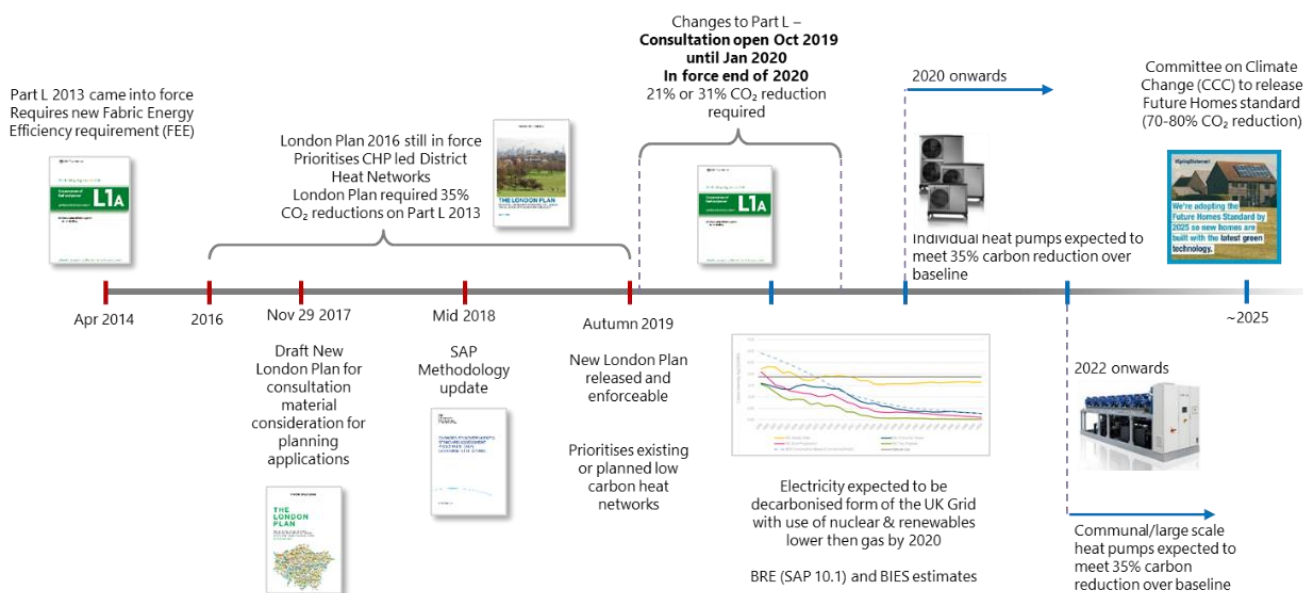


Figure 3-1 UK Past and future UK carbon regulations

The image shows the changing policy and regulatory landscape since 2014. The Future Homes Standard was consulted upon in 2020. No further updates on the process have been provided to date. It was outlined by BEIS that district heat networks (DHN), heat pumps and electric heating, along with improved fabric will meet these future emissions reductions targets. The consultation report stated:

"2.9 The CCC stated in its report Net Zero: The UK's contribution to stopping global warming that achieving the net zero target will require the full decarbonisation of buildings by 2050. There are a number of existing low carbon heating technologies with the potential to support the scale of change needed. We anticipate that low carbon heating may be delivered through heat pumps, heat networks and in some circumstance's direct electric heating."

As developments in design now come forward, they would be expected to be registered under a future set of regulations. As a result, changes will be required to the baseline energy strategy to ensure future proofing.

The Building Regulations Part L governs the conservation of fuel and power in both new construction and refurbishment of the UK building stock. Compliance with Building Regulations is a regulatory requirement for all new developments. Carbon emissions of a development comparative to compliance with Part L is the KPI for many carbon targets, including those set out in the Code for Sustainable Homes and the London Plan (2021).

The current version of the Approved Document Part L1A for new dwellings was published in 2021 and is referred to as Part L 2021. The Part L1 procedure uses the Standard Assessment Procedure (SAP), which is a methodology used to assess the energy performance of buildings, developed by the Building Research Establishment (BRE).

3.4 Regional Planning Policy

The London Plan (2021) is the spatial development strategy for London, produced by the Greater London Authority (GLA) on behalf of the Mayor of London. Every London Borough Local Plan must be in general conformity with the London Plan.

Policies surrounding sustainability are summarised below.

Policy GG2 Making the best use of land

To create successful sustainable mixed-use places that make the best use of land, those involved in planning and development must enable the development of brownfield land; prioritise sites which are well-connected by existing or planned public transport; aim to secure net biodiversity gains where possible; and plan for good local walking, cycling and public transport connections.

Policy GG3 Creating a healthy city

Developments should seek to improve London's air quality; reduce public exposure to poor air quality; improve access to quality greenspaces; provide new green infrastructure; provide new spaces to play; and ensure that buildings are well-insulated and ventilated.

Policy GG6 Increasing efficiency and resilience

To help London become a more efficient and resilient city, those involved in planning and development must support the move to a low carbon circular economy and ensure that buildings and infrastructure are designed to adapt to a changing climate.

Policy G5 Urban greening

Major development proposals should contribute to the greening of London by including urban greening and incorporating high quality landscaping, green roofs, green walls and nature based sustainable drainage.

Policy S11 Improving air quality

Development proposals must be at least air quality neutral and use design solutions to prevent or minimise increased exposure to existing air pollution.

Policy S12 Minimising greenhouse gas emissions

Major development should be net zero-carbon. This means reducing greenhouse gas emissions in operation, and minimising both annual and peak energy demand in accordance with the following energy hierarchy:

1. be lean: use less energy and manage demand during construction and operation.
2. be clean: exploit local energy resources (such as secondary heat) and supply energy efficiently and cleanly.
3. be green: maximise opportunities for renewable energy by producing, storing and using renewable energy on-site.
4. be seen: monitor, verify and report on energy performance.

A minimum on-site reduction of at least 35 per cent beyond Building Regulations Part L 2021 is required for major developments. Residential development should achieve 10 per cent, through energy efficiency ("Lean") measures alone, and non-residential development should achieve 15%.

The GLA requires the zero-carbon target to be achieved with a minimum 35% savings on-site, beyond the notional Part L 2021 baseline. The remaining carbon emissions (typically 65%) are offset through a cash in lieu payment to Haringey or offset through off-site measures, where possible. The money is used to fund carbon reduction projects in the Haringey boundary. This payment has to account for 30 years of carbon emissions at a fixed rate of cost and carbon intensity.

Policy SI3 Energy infrastructure

Major development proposals within Heat Network Priority Areas should have a communal low temperature heating system

1. the heat source for the **communal heating system should be selected in accordance** with the following heating hierarchy:
 - a. connect to local existing or planned heat networks
 - b. use available zero-emission or local secondary heat sources (in conjunction with heat pump, if required,
 - c. use low emission combined heat and power (CHP) (only where there is a case for CHP to enable the delivery of an area-wide heat network)
 - d. use ultra-low NOx gas boilers
2. CHP and ultra-low NOx gas boiler communal or district heating systems should be designed to ensure that they meet the requirements of policy SI1 (A)
3. where a heat network is planned but not yet in existence the development should be designed for connection at a later date.

Policy SI4 Managing heat risk

Development proposals should minimise adverse impacts on the urban heat island through design, layout, orientation, materials and the incorporation of green infrastructure. Major development proposals should demonstrate through an energy strategy how they will reduce the potential for internal overheating and reliance on air conditioning systems in accordance with the cooling hierarchy.

Policy SI5 Water infrastructure

In order to minimise the use of mains water, water supplies and resources should be protected and conserved in a sustainable manner. Residential developments should achieve mains water consumption of less than 105 litres per person per day and non-residential development should achieve the BREEAM Excellent minimum standard according to credit Wat 01.

Policy SI7 Reducing waste and supporting the circular economy

Resource conservation, waste reduction, increases in material re-use and recycling, and reductions in waste going for disposal will be achieved by the Mayor, waste planning authorities and industry working in collaboration.

Developments should have adequate, flexible, and easily accessible storage space and collection systems that support, as a minimum, the separate collection of dry recyclables (at least card, paper, mixed plastics, metals, glass) and food. Referable applications should promote circular economy outcomes and aim to be net zero-waste.

Policy SI12 Flood risk management

Development proposals should ensure that flood risk is minimised and mitigated, and that residual risk is addressed. This should include, where possible, making space for water and aiming for development to be set back from the banks of watercourses.

Policy SI13 Sustainable drainage

Development proposals should aim to achieve greenfield run-off rates and ensure that surface water run-off is managed as close to its source as possible

Policy T5 Cycling

Development should facilitate and encourage cycling and reduce car dependency and the health problems it creates.

Policy T6 Car parking

Car parking should be restricted in line with levels of existing and future public transport accessibility and connectivity. New residential development should not exceed the maximum parking standards. All residential car parking spaces must provide infrastructure for electric or UltraLow Emission vehicles. At least 20 per cent of spaces should have active charging facilities, with passive provision for all remaining spaces.

3.5 Local Planning Policy

The LBH Local Plan currently encompasses two main documents to set out a number of policies applicable to developments in the Haringey area. The Local Plan sets out goals across all elements of sustainability and energy spectrum. These policies are typically in alignment with the London Plan (2021).

3.5.1 Strategic Policies 2013 with alterations adopted July 2017) ("SP")

Policy SP4 Working towards a Low Carbon Haringey

Over the lifetime of the Local Plan, reducing energy use in buildings and working towards a low carbon borough will be one of the key challenges facing Haringey. The Council will promote the measures outlined below to reduce carbon emissions from new and existing buildings.

1. In line with London Plan policy, the Council **will promote and require all new developments to take measures to reduce energy use and carbon emissions during design, construction and occupation, by incorporating the following measures:**
 - a. From 2011 onwards, all new residential development will achieve a minimum 25% reduction in total (regulated) CO₂ emissions in line with Code for Sustainable Homes Level 4 energy standards and should aim to achieve Level 6. All new residential development shall be zero carbon from 2016 onwards; and

- b. From 2011 onwards all new non-residential development shall be built to at least BREEAM “very good” standard and should aim to achieve BREEAM “excellent” or the current nationally agreed standard. All new non-residential development shall be zero carbon from 2019.

2. The Council will promote low- and zero-carbon energy generation through the following measures:

- a. Requiring all developments to assess, identify and implement, where viable, site-wide and area-wide decentralised energy facilities including the potential to link into a wider network;
- b. Establishing local networks of decentralised heat and energy facilities by requiring developers to prioritise connection to existing or planned networks where feasible;
- c. Working with neighbouring boroughs and other partners to explore ways of implementing sub-regional decentralised energy networks including the potential in the Upper Lee Valley Opportunity Area; and
- d. All new developments are required, where viable, to achieve a reduction in predicted carbon dioxide emissions of 20% from on-site renewable energy regeneration, which can include connections to local sources of decentralised renewable energy.

Haringey have inferred their interpretation of “Zero Carbon” within their document “Local Plan: Strategic Policies 2013 (with alterations 2017)”. On page 75 it confirms the following:

“In December 2008, the Government published Definition of Zero Carbon Homes and Non-Domestic Buildings: Consultation document, consulting on the definition of zero carbon homes and in particular an approach based on:

- a. *High levels of energy efficiency in the fabric of the home;*
- b. *A minimum level of carbon reduction to be achieved on-site or through directly connected heat; and*
- c. *A list of (mainly offsite) allowable solutions for dealing with the remaining emissions (including from appliances).”*

This definition of zero carbon is as per the GLA requirements, but the latter provide individual targets for “Lean” and “Green”.

Policy SP5 Water Management and Flooding

The Council will require all development in Haringey to be water efficient during construction and operation and to reduce all forms of food risk. All development shall:

1. Improve the water environment, water quality and drainage systems;
2. Minimise water use and illustrate how development would contribute to general and flash flooding;
3. Take account of flood risk vulnerability classification as set out in paragraph 100 of the NPPF and will apply the NPPF Sequential Test and Exception Test;
4. Implement measures to prevent (or mitigate as last resort) local surface water and downstream flooding;
5. Implement Sustainable Drainage Systems from strategic to individual site level to improve water attenuation, quality and amenity;

6. Restore and enhance the Blue Ribbon Network including Pymmes Brook, Moselle Brook, the River Lee and its tributaries, deculverting wherever feasible, to improve water quality and amenity of these waterways and to help reduce food risk (in line with London River Action Plan); and
7. Require higher resilience and levels of flood protection for critical infrastructure to ensure the protection of essential services such as water and power.

In order to facilitate this, the Council:

1. Has carried out a joint SFRA (Strategic Flood Risk Assessment) Stage 1 for the whole borough
2. Has carried out a Sequential Test for the Areas of Development (Growth Areas and Areas of Change)
3. Is carrying out, in association with other north London boroughs in the Drain London sub-region, a Surface Water Management Plan to identify issues with drainage networks and the effects of new development.

Policy SP6 Waste and Recycling

The Council supports the objectives of sustainable waste management set out by the Government in PPS10 Planning for Sustainable Waste Management and the Mayor's London Plan. To achieve these, the Council shall:

1. Safeguard existing waste sites unless compensatory provision is made
2. Maximise self-sufficiency in waste management capacity
3. Seek to minimise waste creation, increase recycling rates in relation to commercial, industrial and municipal waste in order to achieve the Mayor's recycling targets
4. Address waste as a resource and look to disposal as the last option, in line with the Mayor's waste hierarchy
5. Require integrated, well-designed recycling facilities to be incorporated into all new developments
6. Monitor changes in the stock of waste management facilities, waste arisings, and the amount of waste recycled, recovered and going for disposal
7. Continue working with its partners in the North London Waste Authority to adopt the North London Waste Plan (NLWP) which has identified locations suitable for waste management facilities to meet the London Plan apportionment of 1.9 2.1m tonnes and the Haringey apportionment of 237,000 182,000 tonnes.

Haringey will require Site Waste Management Plans for all major applications to identify volume and types of demolition and construction waste and to demonstrate how waste will be minimised and managed during construction and occupation. New waste management facilities will be required to take into account and minimise pollution and nuisance issues. This is addressed in more detail in the Development Management Policies document.

Policy SP7 Transport**Delivering regeneration and access**

In line with London Plan policies, the Local Implementation Plan (LIP) and the Mayor's Transport Strategy, the Council will work with its partners to promote the following key infrastructure proposals to support Haringey's regeneration and local/strategic access to London, employment areas and local services;

1. The Council, in cooperation with neighbouring boroughs, will seek to reduce the impact of larger lorries in local residential areas and town centres and investigate the feasibility of a freight distribution hub
2. Improvements to the Piccadilly, Victoria and Northern Lines including new trains, new signalling and new control centres
3. Improvements to overground routes along West Anglia, East Coast (Great Northern) and Barking - Gospel Oak line that service the centre and east of the borough
4. Access and interchange improvements to overground stations at Alexandra Palace, Finsbury Park, Harringay, Hornsey White Hart Lane, Northumberland Park, South Tottenham, and Bruce Grove
5. Improvements to interchanges at Tottenham Hale and Seven Sisters
6. Improvements to the Tottenham Gyratory
7. Improvements to east - west bus routes as well as promoting new east - west routes.

Delivering action on Climate Change and quality and healthy Places

In line with the London Plan, the Council will work with its partners to promote the following travel demand management schemes to tackle climate change, improve local place shaping and public realm, and environmental and transport quality and safety by:

8. Minimising congestion and addressing the environmental impacts of travel
9. Promoting public transport, walking and cycling (including minimum cycle parking standards)
10. Promoting road safety and pedestrian movement particularly in town centres and close to local services
11. Promoting car sharing and establishing car clubs
12. Seeking to locate major trip generating developments in locations with good access to public transport and so better integrate transport and land use planning
13. Adopting maximum car parking standards and car free housing wherever feasible
14. Seeking to mitigate the impact of road-based freight and promote alternatives
15. Supporting measures to influence behavioural change such as promoting low carbon vehicles
16. Requiring the submission of transport assessments and travel plans for large scale proposals in line with TfL guidance.

3.5.2 LBH Development Management DPD (adopted July 2017) ("DM DPD")

Policy DM19 Nature Conservation

1. Development proposals on sites which are, or are adjacent to, internationally designated sites, Sites of Special Scientific Interest, Local Nature Reserves, Sites of Importance for Nature Conservation or Ecological Corridors, should protect and enhance the nature conservation value of the site.
2. Development that has a direct or indirect adverse impact upon important ecological assets, either individually or in combination with other development, will only be permitted where:
 - a. The harm cannot be reasonably avoided; and
 - b. It has been suitably demonstrated that appropriate mitigation can address the harm caused.

Policy DM20 Open Space and Green Grid

1. Development that protects and enhances Haringey's open spaces will be supported.
2. The reconfiguration of open space will be supported where:
 - a. It is part of a comprehensive, deliverable scheme;
 - b. There would be no net loss of open space;
 - c. It would achieve enhancements to address identified deficiencies in the capacity, quality and accessibility of open space, and it would secure a viable future for the open space; and
 - d. It would not be detrimental to any environmental function performed by the existing open space.
3. The Council will require all development providing new or replacement open space, wherever possible, to connect to the All London Green Grid. Protection and enhancement of this network will make a positive contribution to Haringey and its communities, in addition to providing social, recreational and ecological benefits.
4. Proposals for ancillary development on open space will be supported where they:
 - a. Are necessary for, or would facilitate, the proper functioning of the open space
 - b. Would not be detrimental to any other functions of the open space
 - c. Are ancillary to the use(s) of the open space
 - d. Are of an appropriate scale
 - e. Do not detract from the open character of the site or surroundings
 - f. Contribute positively to the setting and quality of the open space.
5. The Council supports the provision and improvement of outdoor leisure facilities. Ancillary developments which enhance the park and open space offer (such as refreshment facilities, market and event spaces, public conveniences, public art installations or outdoor play and fitness equipment), or those which meet the special needs of education, will be permitted, provided that they:

- a. Are of a high standard of design and quality, safe and accessible to all
 - b. Do not detrimentally impact on nature conservation and biodiversity
 - c. Do not adversely detract from the overall function, amenity, character and appearance of the park or open space.
- 6. Development adjacent to open space should seek to protect and enhance the value and visual character of the open land.
- 7. Sites over 1Ha in size which are located in identified areas of open space deficiency should seek to create new publicly accessible open space on the site, in accordance with the open space standards set out in the Haringey Open Space and Biodiversity Study (2013), subject to viability.
- 8. Consideration will be given to designating Local Green Spaces in line with national planning guidance.

Policy DM21 Sustainable Design, Layout and Construction

- 1. All new development, including building and landscape works, will be expected to consider and implement sustainable design, layout and construction techniques. Proposals should:
 - a. Apply the energy hierarchy to minimise energy use in order to meet, and if possible, exceed, minimum carbon dioxide reduction requirements
 - b. Apply the cooling hierarchy to reduce the potential for overheating and limit reliance on mechanical air conditioning systems
 - c. Maximise opportunities to enhance biodiversity on-site, including through appropriate landscaping, Sustainable Drainage Systems, living roofs and green walls
 - d. Wherever possible, use building materials with high environmental performance ratings
 - e. Seek opportunities for locally sourced labour.
- 2. The Council will support appropriate measures to sustainably retrofit existing homes and non-residential buildings.
- 3. Proposals that fail to demonstrate adequate consideration for sustainable design, layout and construction techniques will be resisted.
- 4. Consideration will be given to the use of carbon offset payments, to be secured by planning obligations, where it can be demonstrated that proposals are unable to meet carbon dioxide emission reduction targets on-site.

Policy DM22 Decentralised Energy

- 5. Subject to other policy requirements, proposals that contribute to the provision and use of Decentralised Energy network infrastructure will be supported.

Communal energy systems

- 1. All development that incorporates site-wide communal energy systems should examine opportunities for extending such systems, irrespective of whether it is connected to a DE network.

2. All development that incorporates site-wide communal energy systems should optimise opportunities for extending such systems beyond the site boundary to supply energy to neighbouring existing and planned future developments.

Existing and planned future DE networks

1. All development proposals should prioritise connection to existing or planned future DE networks.
2. All major development located within 500 metres of an existing DE Network, and minor new-build development located within 25 metres, will be expected to secure connection to that network subject to demonstration of technical feasibility and financial viability.
3. All major development located within 500 metres of a planned future DE Network, which is considered by the Council likely to be operational within 3 years of a grant of planning permission, will be expected to secure connection to that network subject to demonstration of technical feasibility and financial viability.

DE network 'connection zones'

1. All major development located within 500 metres of a DE network 'connection zone' should be designed for connection to a DE network.
2. All minor new-build development located within 25 metres of a DE network 'connection zone' should be designed for connection to a DE network.

Customer charters

1. Where site-wide communal and district heating systems are operational, the Council will strongly encourage heat and energy service providers to enter into customer charters with domestic and micro-business customers.

Policy DM23 Environmental Protection

Air Quality

1. All development proposals should consider air quality and be designed to:
 - a. Improve or mitigate the impact on air quality in the Borough; and
 - b. Improve or mitigate the impact on air quality for the occupiers of the building or users of the development.
2. Air quality assessments will be required for all major development and other development proposals, where appropriate.
3. Where necessary, adequate mitigation must be provided.

Noise and Vibration

1. The Council will seek to ensure that new noise sensitive development is located away from existing or planned sources of noise pollution. Proposals for potentially noisy development must suitably demonstrate that measures will be implemented to mitigate its impact.

2. A noise assessment will be required to be submitted if the proposed development is a noise sensitive development, or an activity with the potential to generate noise.

Light Pollution

1. Development proposals that include external lighting must mitigate potential adverse impacts from such lighting. Where appropriate, proposals will be required to submit details demonstrating that external lighting is:
 - a. Appropriate for its purpose in its setting
 - b. Designed to minimise and provide protection from glare and light spillage, particularly to sensitive receptors such as residential properties and natural habitats, including watercourses
 - c. Energy efficient.

Contaminated Land

1. Proposals for new development will only be permitted where it is demonstrated that any risks associated with land contamination, including to human health and the environment, can be adequately addressed in order to make the development safe.
2. All proposals for new development on land which is known to be contaminated, or potentially contaminated, will be required to submit a preliminary assessment to identify the level and risk of contamination and, where appropriate, a risk management and remediation strategy.

Hazardous Substances

1. Proposals for development of new hazardous installations, or development of sites located within the vicinity of existing installations, will only be permitted where it is demonstrated that necessary safeguards are incorporated to ensure the development is safe.

Policy DM24 Managing and Reducing Flood Risk

1. The Council will ensure that all proposals for new development avoid and reduce the risk of flooding to future occupants and do not increase the risk of flooding.
2. All proposals for new development within Flood Zone 2 and 3a will be required to provide sufficient evidence for the Council to assess whether the requirements of the Sequential Test and Exception Test, where required, have been satisfied. Proposals must be informed by a site-specific Flood Risk Assessment (FRA) taking account of all potential sources of flooding and should:
 - a. Demonstrate the application of a sequential approach for the development of individual sites to ensure that the most vulnerable land uses are located in areas of the site that are at lowest risk of flooding
 - b. Preserve overland food and flow routes and ensure there is no net loss of food storage. Adequate food storage and compensation should be provided on site, or if this is not possible, provided off site where circumstances allow
 - c. Where appropriate, set out the mitigation measures that will be incorporated on site to manage residual food risk including:

- A.1.1 Finished floor levels set no lower than 300mm above the 1 in 100 chance in any given year, including an allowance for climate change, food level
- A.1.2 Ensure safe access and egress for future users of the development or an appropriate emergency evacuation plan.
 - d. Contribute to naturalising watercourses where opportunities arise.
- 3. All proposals for new development will be required to:
 - a. Manage and reduce surface water run-off; and
 - b. Manage water and waste water discharges.
- 4. With the exception of water compatible uses and essential infrastructure, development in areas designated in Haringey's Strategic Flood Risk Assessment as being within Flood Zone 3b will not be permitted.

Policy DM25 Sustainable Drainage Systems

- 1. All proposals for new development must seek to manage surface water as close to its source as possible in line with the London Plan drainage hierarchy.
- 2. The Council will require Sustainable Drainage Systems (SuDS) to be sensitively incorporated into new development by way of site layout and design, having regard to the following requirements:
 - a. All major development proposals will be required to reduce surface water flows to a greenfield run-off rate for a 1 in 100-year critical storm event
 - b. All minor development proposals should aim to achieve a greenfield run-off rate and, at a minimum, achieve a 50 per cent reduction on existing site run-off rates
 - c. All other development should seek to achieve a greenfield run-off rate and include at least one 'at source' SuDS measure resulting in a net improvement in water quantity or quality discharging to a sewer
 - d. For all development where a greenfield run-off rate cannot be achieved justification must be provided to demonstrate that the run-off rate has been reduced as much as possible.
- 3. Where Sustainable Drainage Systems are implemented, they will be expected to:
 - a. Meet the requirements set out in the Council's relevant local standards and guidance, or national standards where agreed
 - b. Incorporate measures identified in the Surface Water Management Plan
 - c. Be designed to maximise biodiversity and local amenity benefits, and where appropriate, ensure that SuDS techniques provide for clean and safe water at the surface
 - d. Improve water quality
 - e. Function effectively over the lifespan of the development.

4. Where SuDS cannot be implemented due to site constraints (such as land contamination or space limitations) robust justification must be provided along with proposed alternative sustainable approaches to surface water management.

Policy DM26 Critical Drainage Areas

1. All proposals for new development within a Critical Drainage Area (CDA) will be required to incorporate measures to reduce the overall level of flood risk in the CDA.
2. Proposals for new development within Local Flood Risk Zones must include a statement describing how flood risk issues have been addressed. The Council may require a further site-specific Flood Risk Assessment to assess risk, particularly from surface water flooding.

Policy DM27 Protecting and Improving Groundwater Quality and Quantity

1. The Council will seek to protect and improve the quality and quantity of groundwater resources within the Borough.
2. All proposals for new development will be required to identify existing and potential new sources of groundwater pollution and where appropriate, submit a relevant desktop study to demonstrate this has been fully considered, including on sites with an historic legacy of contamination.
3. All proposals for new development must ensure that:
 - a. There is no adverse impact on groundwater quality, either by design, construction or operation of the development; and
 - b. Appropriate construction techniques are used in order to limit disturbance to natural groundwater flows.
4. Proposals for new development in Source Protection Zones must not result in an unacceptable risk to groundwater quality.

Policy DM28 Watercourses and Flood Defences

1. New development must be set back at a distance of 8 meters from a main river and 5 meters from an ordinary watercourse, or at an appropriate width as agreed by the Council and the Environment Agency, in order to provide an adequate undeveloped buffer zone.
2. Development proposals on sites containing a main river or ordinary watercourse will be required to demonstrate how the objectives of the Thames River Basin Management Plan and London River Restoration Action Plan have been taken into account.
3. Having regard to (2) above, all major development will be required to and minor development should:
 - a. Investigate and secure the implementation of environmental enhancements to open sections of the river or watercourse; and
 - b. Investigate and secure the implementation of measures to restore culverted sections of the river or watercourse.

4. Proposals must not adversely affect the natural functioning of main rivers and ordinary watercourses, including through culverting.
5. Where appropriate the Council will require proposals to include a condition survey of existing watercourse infrastructure to demonstrate that it will adequately function for the lifetime of the development, and if necessary, make provision for repairs or improvements.
6. Development on or adjacent to a watercourse must not result in the deterioration of the quality of that watercourse.

Policy DM29 On-Site Management of Waste Water and Water Supply

1. The Council will seek to ensure that there is adequate surface water, foul drainage and sewerage treatment capacity to serve all existing and new development. All proposals for new development will be required to:
 - a. Demonstrate that the local public sewer network has adequate capacity to serve the existing and proposed development, or where such capacity does not exist, provide for suitable alternative arrangements for discharging water;
 - b. Ensure the separation of surface and foul water systems, including by investigating and rectifying any identified misconnections; and
 - c. Implement sustainable drainage systems, in line with Policy DM25.
2. The Council will give preference to mains foul drainage and will seek to restrict the use of non-mains drainage for foul water disposal, particularly in Source Protection Zones, in line with Environment Agency guidance. Where non-mains drainage is proposed for the disposal of foul water, a foul drainage assessment will be required to ensure the most sustainable drainage option will be implemented.
3. All proposals for new development will be required to:
 - a. Demonstrate that there is adequate water supply infrastructure capacity both on and off site to serve the development without adversely impacting on existing users; and
 - b. Make provision for the installation and management of measures for the efficient use of mains water.
4. All proposals for new residential development should be designed to meet the London Plan target for mains water consumption.

Policy DM30 New Waste Facilities

Development proposals for all new waste facilities (including transfer and treatment facilities) will be required to demonstrate that any impacts caused by the operation of the facility can be controlled such that the facility will not have a significant adverse effect on human health and the environment in line with regulatory requirements.

3.5.3 Tottenham Area Action Plan (adopted July 2017) ("TAAP")

Policy APP7 Transport

1. *"In accordance with Haringey's 2011-2031 Local Implementation Plan, a major objective of the AAP is to ensure Haringey's transport network can accommodate increases in travel demand by tackling congestion, increasing sustainable transport capacity, encouraging modal shift and reducing the need to travel. This includes facilitating an increase in walking and cycling to improve the health and term wellbeing of Haringey's residents"*

Policy AAP9 Tottenham Green Grid

13. *"In areas identified as deficient in access to open space and nature, a high priority will be afforded to opportunities to enhance access through on-site provision or contributions to the implementation of relevant Tottenham Green Grid projects."*
14. *Development proposals for sites adjoining the Green Grid will need to take account of the route and ensure that opportunities are taken to provide new developments which address the route along its built edges."*
15. *The principles included in the Council's Green & Open Spaces Strategy should be adhered to in the creation of the Green Grid."*

4 Sustainability Statement

This section of the report describes how the Proposed Development responds to relevant policy and requirements relating to sustainability.

4.1 Core Sustainability Drivers

The Sustainability Strategy is based around the latest Haringey Council and GLA targets.

Each are discussed in turn as follows, along with a fourth section on plot level considerations.

4.1.1 Haringey Council and GLA targets

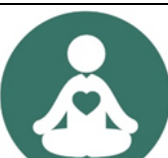
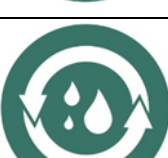
Guidance from Haringey Council and the GLA have informed the sustainability strategy for the Proposed Development. Haringey Council have in place a Local Plan: Strategic Policies (Local Plan), which spans 2013-2026 and sets out a vision and key policies for the future of the borough. This Local Plan takes into consideration the London Plan and other new and emerging policy, while attending to local issues and priorities within the borough, and beyond (such as climate change). The Local Plan attends to key development needs such as employment, housing, and retail provision. Chapters that have specifically supported this sustainability strategy include: Chapter 4 'An Environmentally Sustainable Future', which addresses sustainability with regard to low carbon development, water management and flooding, waste, and transport; and Chapter 7 'Healthier People with a Better Quality of Life', which addresses urban development in relation to health and wellbeing; amongst others. Key points from Chapter 4 also contribute to Haringey's Sustainable Community Strategy, which lists the following as priorities: tackling climate change, managing environmental resources more effectively, increasing recycling and reducing waste, promoting sustainable transport, and encouraging citizens to form 'our first green generation'.

These priorities and key points are all reflected in the strategy points as conceived for the Application Site as outlined in the following section.

4.2 Sustainability Strategy: Key Points

The Sustainability strategy for the site has been developed around eight key themes to set ambitious targets for the new building.

Table 4-1 Key sustainability themes

	Operational energy and carbon This means increasing energy efficiency, decarbonisation of energy, heat, and transport and balancing any remaining emissions through carbon offsetting. This section looks to set targets that will drive down energy demand and carbon emissions.
	Climate change resilience This means ensuring the masterplan is prepared for and resilient to the shocks and stresses that may be anticipated with forecast changes in the future climate. This covers the topics outlined in the DEFRA UK Climate Change Risk Assessment 2017; Heat stress, food supply, Disease response, Natural Capital and Water stress and Flood risk.
	Biodiversity This means increasing the abundance and diversity of plant and animal species appropriate to local ecology. Having a positive impact on the biodiversity gain of the area as well as how the site users will positively engage with the site, through nature.
	Health and wellbeing Health and wellbeing of site users and visitors is central to the design. This is to be achieved through supporting the physical and mental health of residents, by creating spaces and infrastructure on site that is conducive to an active and socially cohesive lifestyle.
	Water and surface water run-off This means designing the masterplan to consume less potable water on-site, both inside the buildings and in public realm irrigation; through reducing demand and maximising recycling. It also means increasing the site resilience to surface water flooding. Both through reducing impact on the site and managing surface water run-off in a smarter way before discharging into the sewer.
	Air quality This means reducing the impact the development has on the air quality of the wider community, from air pollutants, Nitrous Oxide, Carbon Monoxide, Carbon Dioxide, PM 2.5 and PM 10. It also aims to maximise positive air quality, providing clean air externally and internally across the site.
	Mobility and sustainable transport This means the masterplan is designed to minimise the use of private fossil fuel transport from the site visitors, residents and users. This is to be achieved by encouraging and increasing the use of public transport and sustainable forms of private transport, cycling, walking or non-emitting vehicles.

	Resources, materials, and waste This means we reduce the amount of resources we use, increasing proportion of recycled content as well as the amount of materials reused and thinking about the end of life of products. The ultimate goal is to design out waste, keeping products in use so that nothing goes to waste. This includes embodied carbon reductions, which involves reducing the emissions associated with the construction of the buildings. This includes targets from Cradle to Practical Completion, including supply chain emissions arising from the extraction of resources, manufacture of products, transportation and assembly of a building. The design considered the emissions associated to maintenance and replacement, developing strategies to minimise these through the life cycle. S
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The following table describes how the strategies embedded into the project respond to the key local policies.

Table 4-2 Key Local Policies

Policy	Project targets / design response
SP4 Working towards a Low Carbon Haringey (Strategic Policies 2013-2026)	a) See Energy Statement, which includes a site wide energy strategy (low- to zero-carbon energy generation is targeted).
SP5 Water Management and Flooding (Strategic Policies 2013-2026)	a) Flood risk assessment
SP6 Waste and Recycling (Strategic Policies 2013-2026)	a) Operational Waste Management Plan (OWMP) and Site Waste Management plan (SWMP)
SP7 Transport (Strategic Policies 2013-2026) - Delivering regeneration and access - Delivering action on Climate Change and quality and healthy Places	a) A Travel Plan is produced for the scheme. The Plan attends to both regeneration and access as well as action on climate change and creation of quality and healthy places. b) See Health Impact Assessment (HIA)
DM19 Nature Conservation (Development Management DPD 2017)	a) The Landscape strategy and Design and Access Statement advance net gains in biodiversity as well as climate resilience.
DM20 Open Space and Green Grid (Development Management DPD 2017)	a) The Landscape strategy and Design and Access Statement design an increase in open and green space over the site.
DM21 Sustainable Design, Layout and Construction (Development Management DPD 2017)	a) See Energy Statement for application of the energy hierarchy within the scheme.
DM22 Decentralised Energy (Development Management DPD 2017) - Communal energy systems - Existing and planned future DE networks - DE network connection zones - Customer charters	a) The Energy Strategy describes the site wide energy strategy and design of the district heat network.
DM23 Environmental Protection (Development Management DPD 2017) - Air quality - Noise and vibration - Light pollution - Contaminated land - Hazardous substances	a) Environmental Impact Assessment details in full the environmental impact and associated mitigation.

DM24 Managing and Reducing Flood Risk (Development Management DPD 2017)	a) Flood risk assessment produced
DM25 Sustainable Drainage Systems (Development Management DPD 2017)	a) Flood risk assessment produced
DM26 Critical Drainage Areas (Development Management DPD 2017)	a) Flood risk assessment produced
DM27 Protecting and Improving Groundwater Quality and Quantity (Development Management DPD 2017)	
DM28 Watercourses and Flood Defences (Development Management DPD 2017)	a) Flood risk assessment produced
DM29 On-Site Management of Waste Water and Water Supply (Development Management DPD 2017)	a) Flood risk assessment produced
DM30 New Waste Facilities (Development Management DPD 2017)	a) Operational Waste Management Plan (OWMP) produced for the scheme

4.3 Sustainable Transport

The masterplan is designed to minimise the use of private fossil fuel transport from the site's visitors, residents and users. Arup, the Transport Consultants, have prepared a Framework Travel Plan for the development which aims to:

- "Influence the travel behaviour of residents, staff and visitors;
- Encourage travel by cycle, on foot and by public transport through highlighting their accessibility and availability;
- Promote healthy lifestyles, sustainable and active travel, and vibrant communities."

Zero-carbon transport is encouraged in the scheme by promoting travel by walking and cycling. To encourage cycling a 'Cycle to Work' scheme / Interest-free cycle loans for staff has been proposed to enable staff to purchase bicycles and spread the payments over a period of time. Arup's proposed Santander 'Cycles scheme membership' also encourages this by providing cycle hire membership for the first occupiers of the residential units for up to three years. Additionally, end-of-trip facilities are provided such as showers/ changing facilities for employees, which aims to encourage cycle to work through enhancing its convenience and comfortability.

The proposed scheme will provide 104 long stay and eight short stay cycle parking spaces for all land uses. A breakdown of the proposed cycle parking provision is shown in Table 4-3.

Table 4-3 NDP Hotel Proposed cycle parking provision

Use	Long-stay	Short-stay
Hotel	9	4
Serviced apartments	95	4
Total	104	8

Table 4-4 Transport Policies and Targets

Policies and targets
London Plan 2021: Policy T1 "All development should make the most effective use of land, reflecting its connectivity and accessibility by existing and future public transport, walking and cycling routes, and ensure that any impacts on London's transport network and supporting infrastructure are mitigated." Therefore new development proposals should target 95% of all trips in Central London (90% in Inner London and 75% in Outer London) to be made by walking, cycle, or public transport by 2041.
Development Management Development Plan Document (DPD) 2017 Policy DM31: Sustainable Transport : "The Council will require the submission of a Travel Plan and a Transport Assessment/ Statement in support of development proposals in accordance with the Transport for London thresholds."
BREEAM Tra 02: Sustainable transport measures To maximise the potential for local public, private and active transport through provision of sustainable transport measures appropriate to the site.

4.4 Health and wellbeing

This means improving the mental and physical wellbeing of site visitors, site users, and site residents as well as the wider community. The ambition is to minimise the impacts of external factors on health and wellbeing of site users as well as providing positive stimuli to allow site users to flourish in their daily lives.

Active Travel

Arup's promotion of travel by walking and cycling in their travel plan helps to encourage an active and healthy lifestyle. They also plan to make site users aware of the health benefits of walking, through the provision of promotional material.

Landscape and Public Realm Design Principles

To contribute and promote a well-rounded, active and healthy lifestyle, the development's landscape has been designed to promote pedestrian outdoor space which will encourage and welcome residents to utilise the outdoor space on site. As seen in Figure 4-1 this has been achieved through the use of the integration of greening on a street and podium level, as well as the creation of outdoor rooms and pedestrian priority space on the street level.

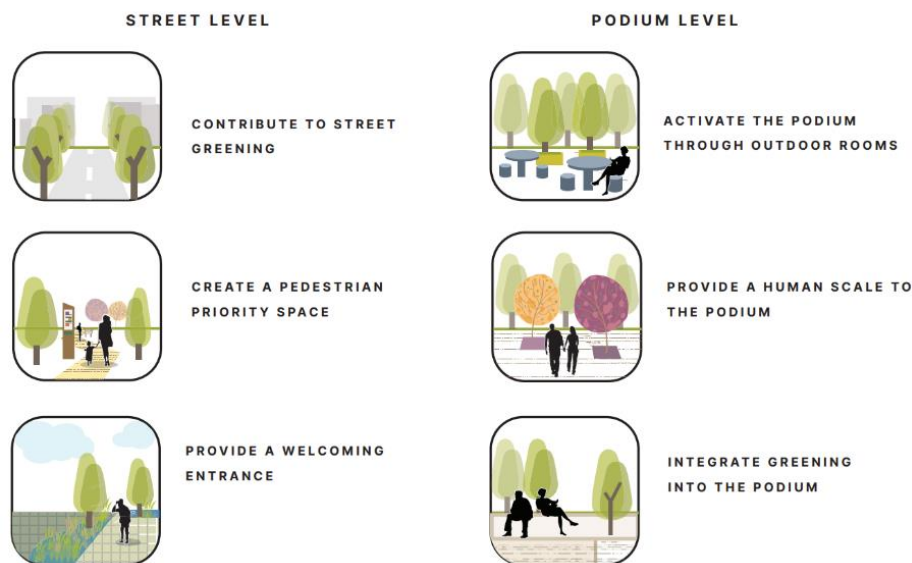


Figure 4-1 Graphic from Arup's Design and Access Statement showing implementation of healthy outdoor lifestyle on site

Active Spaces

As seen in Figure 4-1 and Figure 4-2 Arup has prioritised active spaces with community amenity space and play provision in the proposed development (Figure 4-3 and Figure 4-4) this will have a positive impact on the wellbeing of all who use the space, fostering recreation and outdoor usage for all generations. This in turn will benefit the mental health of residents, by fostering community and reducing the risk for social isolation.



Figure 4-2 Arup's plan showing active spaces

Key

-  Key views towards active spaces
-  Restaurant seating
-  Active podium areas

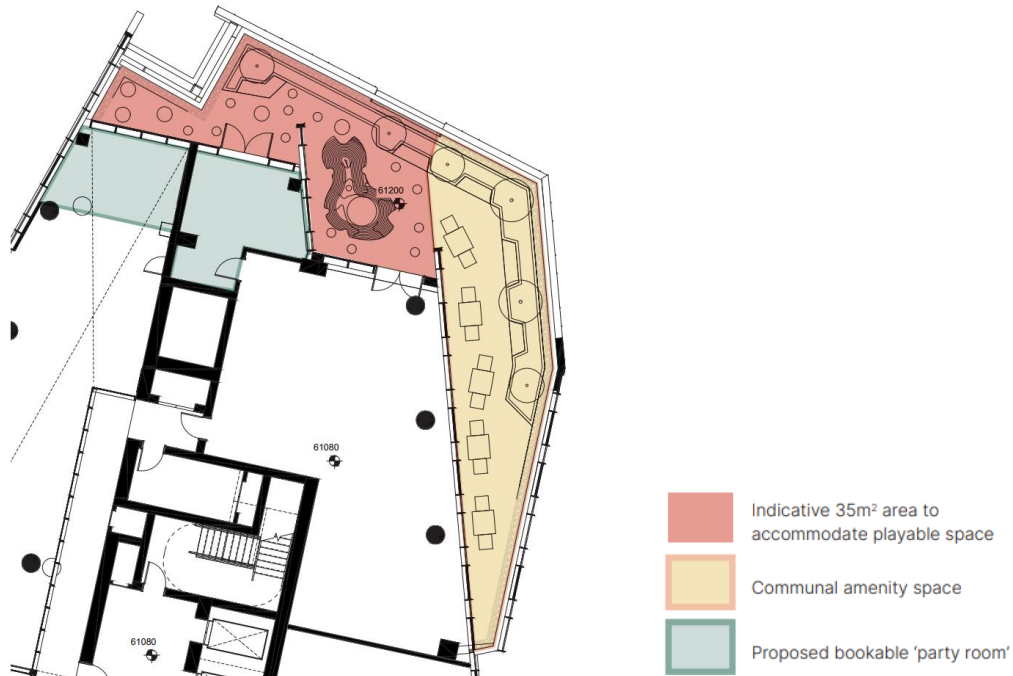


Figure 4-3 Residential amenity L13 terrace



Figure 4-4 Locations of playable spaces within the approved

Table 4-5 Health and Wellbeing Policies and Targets

Policies and targets
London Plan, Policy G 6: Biodiversity and access to nature Developments which reduce deficiencies in access to nature should be considered positively
London Plan, Policy D 5: Inclusive design Achieve highest standards of accessible and inclusive design, inclusive design statement to be included within Design and Access Statement, ensured involvement of local communities in planning policies
Development Management DPD 2017: DM20 Open Space and Green Grid The Council will require all development providing new or replacement open space, wherever possible, to connect to the All London Green Grid. Protection and enhancement of this network will make a positive contribution to Haringey and its communities, in addition to providing social, recreational and ecological benefits. The Council supports the provision and improvement of outdoor leisure facilities. Ancillary developments which enhance the park and open space offer (such as refreshment facilities, market and event spaces, public conveniences, public art installations or outdoor play and fitness equipment),
BREEAM Hea 07: Safe and healthy surroundings To encourage the provision of safe access around the site and outdoor space that enhances the wellbeing of building users.

4.5 Resources, Materials, and Waste

This means we reduce the amount of resources we use, increasing the proportion of recycled content as well as the amount of materials reused and thinking about the end of life of products. The ultimate goal is to design out waste, keeping products in use so that nothing goes to waste.

4.5.1 Materials

Construction materials have far reaching environmental, economic and social impacts, with irresponsible selection and use having consequences that can lead to further habitat destruction, global warming and economic exploitation

It is expected that the design team will take a holistic view of material sustainability, selecting materials based on a wide criteria including: sourcing, operational performance, aesthetics. This will ensure that the materials selected meet the aspirations of the development and are compliant with BREEAM credits MAT01, MAT02.

4.5.2 Whole Life Carbon

A whole life-cycle carbon assessment was carried out on the proposed hotel building development. The relevant quantities from the cost plan (Draft Version 13. July 2023) were used to complete the assessment as accurately as possible.

It was estimated that the total emissions (modules A1-A5) per area based on the GIA were ~916 kgCO₂e/m², which were found to be higher than the GLA's standard benchmarks. The analysis has identified that the largest opportunities contributing to potential reduction in life-cycle carbon are the continued investigation of lower carbon façade design and leaner design of concrete elements. This might include the specification of post tensioned slabs to replace the flat slabs within the current design and/or the selection of lower cement content concrete mixes.

The height of the building presents challenges to carbon reduction, for that reason, at this stage, assumptions have been taken in a conservative manner. As the project evolves further reduction strategies will be analysed in close interaction with the design team. The results show an overall embodied carbon value of 1203 kgCO₂e/m² GIA for modules A-C (excluding B6 and B7), This achieves the GLA standard benchmark of 1250kg CO₂e/m² but falls short of the GLA aspirational target of 800 kgCO₂e/m² GIA. In order to reach the aspirational benchmark target, the project will need to reduce its overall embodied carbon by 29%.

Additionally, it was estimated that the total emissions (modules B-C excluding B6 & B7) per area based on the GIA were ~434 kgCO₂e/m², which were found to miss both the GLA's aspirational and standard benchmarks. The analysis has identified that the largest factors contributing to life-cycle carbon are the replacement of façade elements and the services. The specification of specific design lives and a robust repair and maintenance strategy for the both the façade and the mechanical equipment would help to reduce this impact.

Main recommendations going forwards to support the reduction of embodied carbon include:

- Focus on leaner structural design and optioneering to reduce structural sizing
- Continue to investigate cement replacements and novel concrete technology outside of GGBS
- Investigation of steel reuse over recycling within roof and canopy
- Minimise carbon intensive internal finishes such as suspended ceilings and raised access flooring, instead focus on longer lifespan, higher quality materials

- Specification of long life and deconstructable façade materials
Specification of lower embodied carbon refrigerant within MEP kit and planning of MEP maintenance regime to increase longevity

4.5.3 Waste

In line with the requirements set out in national and local policy, Buro Happold's waste management strategy for the site aims to maximise recycling and re-use, with waste segregated at source into the following streams: residual, mixed recyclables, and organics.

The Operational Waste Management Plan will be developed in line with the waste hierarchy, shown in Figure 4-5



Figure 4-5 Waste hierarchy

Waste hierarchy

01. Minimise the amount of waste produced and avoid producing waste in the first instance
02. Re-use items as many times as possible
03. Recycle what you can once you have re-used it and it is no longer able to be used or is no longer needed
04. Turn waste materials into a new product where possible i.e. the generation of waste from energy
05. Dispose of what is unable to be recovered in a responsible way

According to the current operational waste management strategy, waste will be segregated at source into at least the following streams, in line with good segregation practices in this type of venues:

- General waste
- Mixed recyclables (metals and plastics)
- Glass
- Cardboard and paper
- Food waste
- Bulky items (furniture, equipment etc.)
- Specialist wastes (hazardous wastes such as empty chemicals, lightbulbs, WEEE, cooking oils, hygiene waste etc.)

Waste will be segregated and captured at the point of generation. Small bins or receptacles with waste liners will be used in the following areas:

- Staff areas (Kitchens, offices and admin areas, housekeeping areas etc.)
- Guest areas (Guestrooms, lobbies, guestroom facilities such as Spa and Gym etc.)

It is anticipated that waste will be collected by a private waste contractor selected by the operator. Alternatively, waste could be collected by Haringey via their current commercial waste service partner, Veolia. Collection of waste would be at a frequency of 3 times per week. Some streams (e.g. Food waste) might be collected more frequently if desired by the operator. Specialist wastes such as hazardous and bulky waste are anticipated to be collected infrequently. The operator will arrange a collection on an as-required basis.

At this stage, the collection strategy is being reviewed and developed further.

Table 4-6 Materials and Waste Policies and targets

Policies and targets
London Plan, Policy SI 2: Whole Life Carbon Assessment Calculate and reduce whole life-cycle carbon (WLC) emissions.
Development Management Plan Document (DPD) 2017 : DM30 New Waste Facilities: Development proposals for all new waste facilities (including transfer and treatment facilities) will be required to demonstrate that any impacts caused by the operation of the facility can be controlled such that the facility will not have a significant adverse effect on human health and the environment in line with regulatory requirements.
BREEAM Mat 01: Environmental impacts from construction products To reduce the burden on the environment from construction products by recognising and encouraging measures to optimise construction product consumption efficiency and the selection of products with a low environmental impact (including embodied carbon), over the life cycle of the building.
BREEAM Mat 02: Specification of products with a recognised environmental product declaration (EPD) Materials with EPDs to be specified, achieving at least 20 EPD points using the BREEAM tool.
BREEAM Man 03: Responsible sourcing of construction products To facilitate the selection of products that involve lower levels of negative environmental, economic and social impact across their supply chain including extraction, processing and manufacture.
BREEAM Mat 05: Designing for durability and resilience To reduce the need to repair and replace materials resulting from damage to exposed elements of the building and landscape.
BREEAM Wst 01: Construction waste management To reduce construction waste by encouraging reuse, recovery and best practice waste management practices to minimise waste going to landfill.
BREEAM Wst 03: Operational waste To encourage the recycling of operational waste through the provision of dedicated storage facilities and space.
BREEAM Wst 06: Designing for disassembly and adaptability To avoid unnecessary materials use, cost and disruption arising from the need for future adaptation works as a result of changing functional demands and to maximise the ability to reclaim and reuse materials at final demolition in line with the principles of a circular economy.

4.6 Water Consumption

Water consumption is currently being assessed through the BREEAM assessment. Water-efficient components are to be specified in the next phase of the development after Stage 2. The Wat 01 – Water consumption credit is currently targeted at 3pt which will mean a 40% improvement over baseline requirements. No grey water system is included in the MEP Water strategy.

According to the MEP RIBA Stage 2 Report an assessment of the domestic water loading units, based on the number of sanitary fittings assumed will be present and Architectural drawings showing size/number of wet rooms have been made, and peak figure issued to Thames Water. This will be used by Thames Water to size the appropriate meter and assess infrastructure changes. These will be identified after Stage 2.

Water Supply, Storage and Distribution

In line with the BREEAM Wat 03 credit leak detection will be provided on the incoming mains water. Leak detection will be via the use of water meters. Water meters on the incoming mains and then on the leaving pipe of the residential and hotel water storage tanks respectively will allow for monitoring of any leaks and allow for the determination of the location. Mains water will be metered for the landlord's areas, hotel areas and within each apartment for individual dwellings.

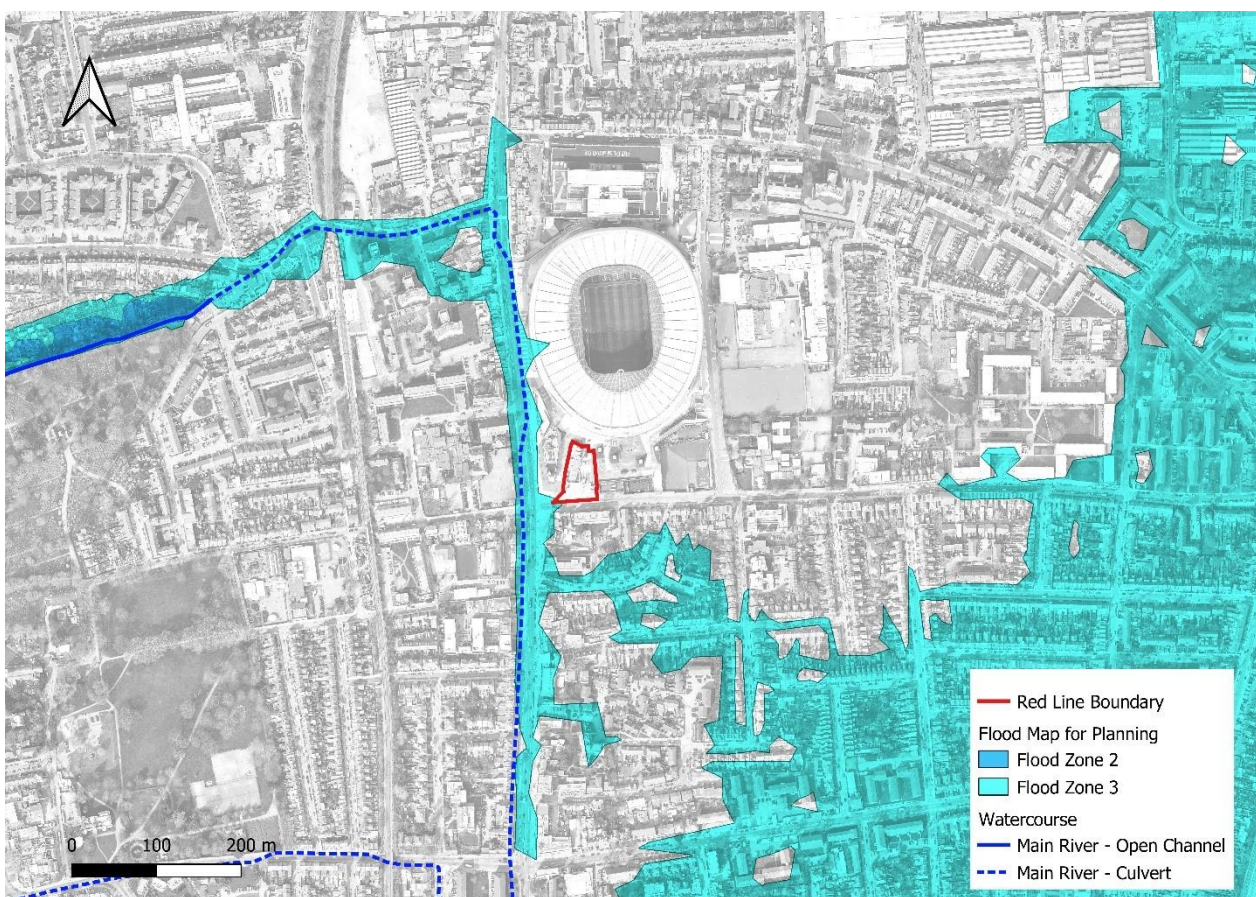
4.7 Flood Risk and Drainage

This means designing the development to consume less potable water on-site, both inside the buildings and in public realm irrigation; through reducing demand and maximising recycling. It also means increasing the site resilience to surface water flooding. Both through reducing impact on the site and managing surface water run-off in a smarter way before discharging into the sewer.

4.7.1 Flood Risk Assessment

A site-specific Flood Risk Assessment (FRA) has been undertaken by Buro Happold. The FRA contains an assessment of the risk associated with each of the following flood sources: the sea (tidal) and rivers (fluvial); surface water and sewer flooding; groundwater; and lakes, reservoirs and artificial sources (excluding water mains failure). The proposed development site is generally considered to be at 'low risk' in the previously listed areas.

The Flood Zone mapping produced by the EA shows that the proposed development lies mostly within Flood Zone 1,



which is classified as low risk. A section to the south-east of the site is just within Flood Zone 2, classified as medium risk, where public realm is proposed seen in Figure 4-6.

Figure 4-6 Flood Map for Planning, Flood Zone 2 and 3 (Environment Agency data)

4.7.2 Sustainable Urban Drainage Systems

The proposed development considers the use of sustainable drainage techniques in accordance with the NPPF, the London Plan 2021 and the Haringey Planning Policy. The London Plan contains a hierarchy of sustainable methods of storing rain water in a descending order: from drainage into the ground to recharging water resources. Where infiltration is not possible, surface water should be stored on site in open water features and then released at a controlled rate. The final option is to store surface water in tanks or cellular storage.

SuDS Techniques for the Proposed Development

Permeable Surfaces

Permeable surfaces are proposed to be underlain with a pavement construction to allow rainwater to pass through the surface via voids, treated and stored in a sub-base aggregate where it either slowly infiltrates into the ground or passes on to the next stage in the drainage system. Due to the ground conditions and previous land uses, ground infiltration is not considered for this site and therefore geocellular storage is proposed underneath the permeable surfaces to attenuate surface water from the site.

It is proposed that permeable surfaces are incorporated within the courtyard areas with below ground attenuation.

Bioretention Systems

Bioretention systems are proposed to be used on the site as well as rain gardens which will be seen as small landscaped depressions that can reduce runoff rates and volumes, whilst providing a form of treatment by filtering the run off through engineered soils and vegetation. Planted areas and tree pits across the site can be utilised as bioretention systems. Geocellular storage crates will provide an underground storage structure with a high void ratio that is suitable for attenuating surface water flows. The flows can be released either into the in-situ ground through infiltration (if ground conditions permit), or into the public sewer drainage system via flow control devices. Due to the restricted external space for other SuDS, underground storage structures will form part of a series of attenuation features which will contribute to attenuating the 1:30 and 1:100 year storm events. Tree pit attenuation is proposed at front of the hotel on Park Lane.

Rainwater Drainage

A system of rainwater drainage will be provided throughout the building, collecting discharge from all the roof areas to suit the architectural roof designs falling by gravity. Suspended drainage at high level will be provided throughout lower ground levels, collecting rainwater stack systems entering from above to connect to drain connections provided by the civil/structural engineers.

All roof areas and terraces greater than 6m² shall be provided with rainwater drainage system installation. Balconies over 6m² will be considered terraces and will be drained via the roof rainwater drainage system. The above ground rainwater system shall be designed to effectively and efficiently, drain the roof levels of the building and is based on a Category 2 design rate, as described within BS EN 12056-3 National Annex NB and storm duration of 2 minutes. Gradients of all rainwater pipes shall be a minimum of 12mm/m but shall be to suit the individual flow characteristics of each rainwater pipe, to achieve a minimum self-cleansing velocity.

Table 4-7 Water and Surface Water Run-off Policies and Targets

Policies and targets
London Plan, Policy SI 5: Water infrastructure In order to minimise the use of mains water, water supplies and resources should be protected and conserved in a sustainable manner.
Development Management Plan Document (DPD) 2017 : DM24 Managing and Reducing Flood Risk The Council will ensure that all proposals for new development avoid and reduce the risk of flooding to future occupants and do not increase the risk of flooding. All proposals for new development within Flood Zone 2 and 3a will be required to provide sufficient evidence for the Council to assess whether the requirements of the Sequential Test and Exception Test, where required, have been satisfied. Proposals must be informed by a site-specific Flood Risk Assessment (FRA)
Development Management Plan Document (DPD) 2017 : DM25 Sustainable Drainage Systems All proposals for new development must seek to manage surface water as close to its source as possible in line with the London Plan drainage hierarchy.
Development Management Plan Document (DPD) 2017 : DM26 Critical Drainage Areas Proposals for new development within Local Flood Risk Zones must include a statement describing how flood risk issues have been addressed. The Council may require a further site-specific Flood Risk Assessment to assess risk, particularly from surface water flooding.
Development Management Plan Document (DPD) 2017 : DM28 Watercourses and Flood Defences Proposals must not adversely affect the natural functioning of main rivers and ordinary watercourses, including through culverting.
Development Management Plan Document (DPD) 2017 : DM29 On-Site Management of Waste Water and Water Supply All proposals for new development will be required to: 1. Demonstrate that there is adequate water supply infrastructure capacity both on and off site to serve the development without adversely impacting on existing users; and 2. Make provision for the installation and management of measures for the efficient use of mains water. 3. All proposals for new residential development should be designed to meet the London Plan target for mains water consumption.
BREEAM Wat 01: Water consumption To reduce the consumption of potable water for sanitary use in new buildings through the use of water efficient components and water recycling systems.
BREEAM Wat 03: Water Leak Detection To reduce the impact of water leaks that may otherwise go undetected.
BREEAM Pol 03: Flood and surface water management To avoid, reduce and delay the discharge of rainfall to public sewers and watercourses, thereby minimising the risk and impact of localised flooding on-site and off-site, watercourse pollution and other environmental damage.

4.8 Biodiversity

Species Protection

The development will be in line with schemes to protect wildlife in the local area. Buro Happold's Lighting Consultants have suggested the following measure to protect the bat, bee and invertebrate species on site with the following guidance for the proposed development.

- **Bats**
 - As nocturnal species, most bat species are susceptible to artificial light. Due to the decline in numbers, all bat species are protected by the Wildlife & Countryside Act (1981) and the Conservations Regulations (1994). This makes it illegal to kill, capture or disturb bats, obstruct access to roosts or damage/destroy roosts. Lighting in the vicinity of bat roosts causing disturbance could constitute an offence. When working in an area where there are bat habitats, developers should:
 - Refer to Ecological report for identification of sensitive locations for bat habitats and roosting
 - Not directly illuminate bat roosts
 - Avoid illuminating foraging areas and route
- **Birds**
 - Evidence shows that artificial light can reduce sleep in birds, which disrupts the long-term circadian rhythm that dictates the onset of breeding. Birds are likely to be disrupted by changes to insect behaviour due to artificial lights. In general: Do not directly illuminate important areas for nesting birds – probably wildlife sites
- **Invertebrates**
 - Moths attracted to lights are a familiar sight. Artificial light, particularly blue UV rich, significantly impacts invertebrates, disturbing feeding, breeding and movement which may reduce and fragment populations. It is estimated that a third of insects that are attracted to lights will die as a result of their encounter. Evidence also shows that pollination rates in illuminated plans can be reduced by 62% - (Knop et al 2017. Nature 548). In general:
 - Avoid illuminating water or reflective surfaces
 - Do not illuminate ecologically sensitive areas
 - Use colour temperature, CCTs of less than 3000K
 - Use narrow band minimal UV source

Urban Greening

Arup’s Design and Access Statement highlights the importance of urban greening on site to help nurture current species of animals and insects in the local environment, this is seen in Figure 4-7 , through the implementation of the following:

- Green roofs
- A green wall
- Flower-rich perennial planting
- Tree-lined streets and planters

As seen in Figure 4-1 in the Health and Wellbeing section the proposed landscaping strategy for the development also includes ecological enhancements such as small streets and herbaceous and ornamental planting.

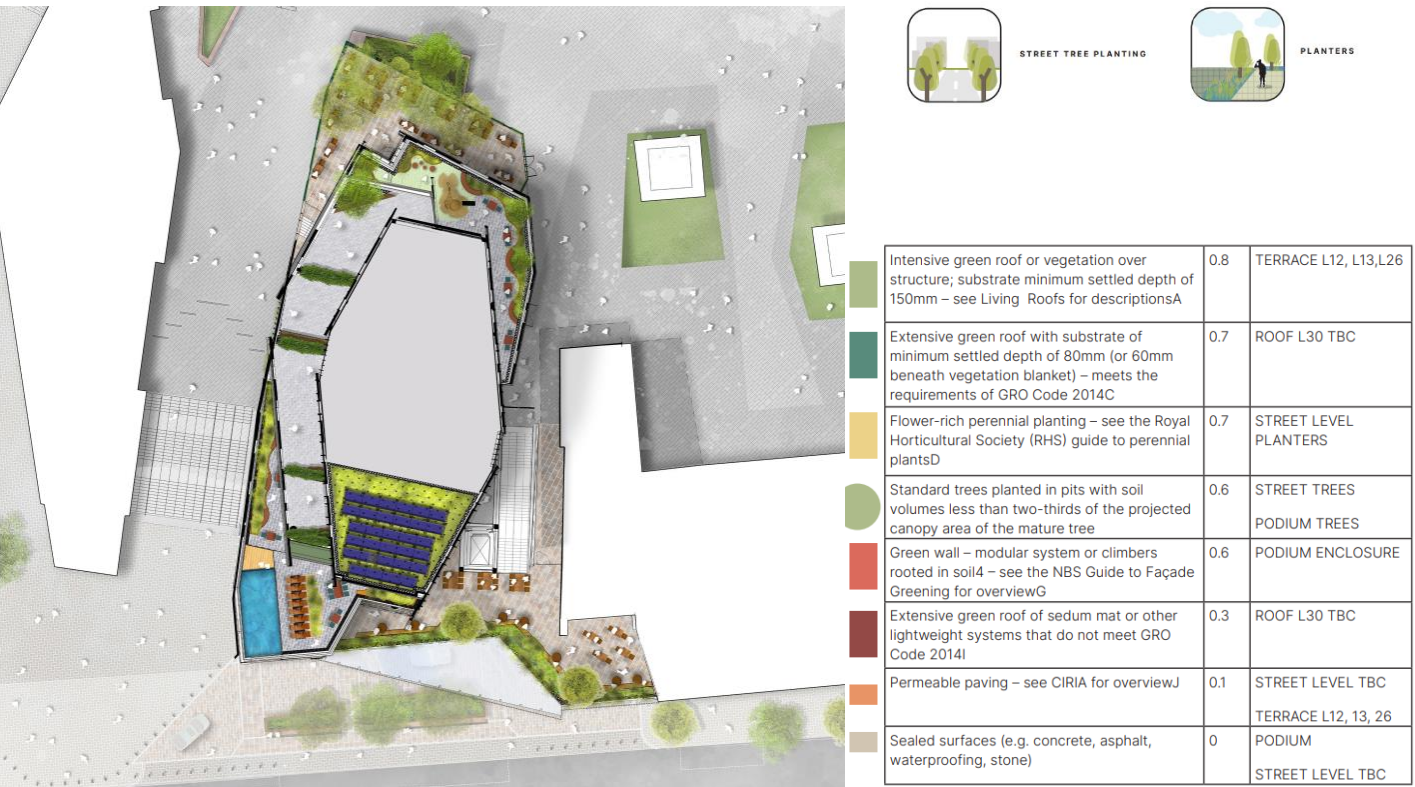


Figure 4-7 Arup’s Illustrative composite landscape plan view from above

A range of species of plants, flowers and shrubs are proposed for the site, this plant biodiversity will also help to increase insect and animal biodiversity seen in



Figure 4-8 Arup’s vision for biodiverse planting



Figure 4-9 . Illustrative elevation of Park Lane looking north to NDP Hotel Plaza and Podium Terrace

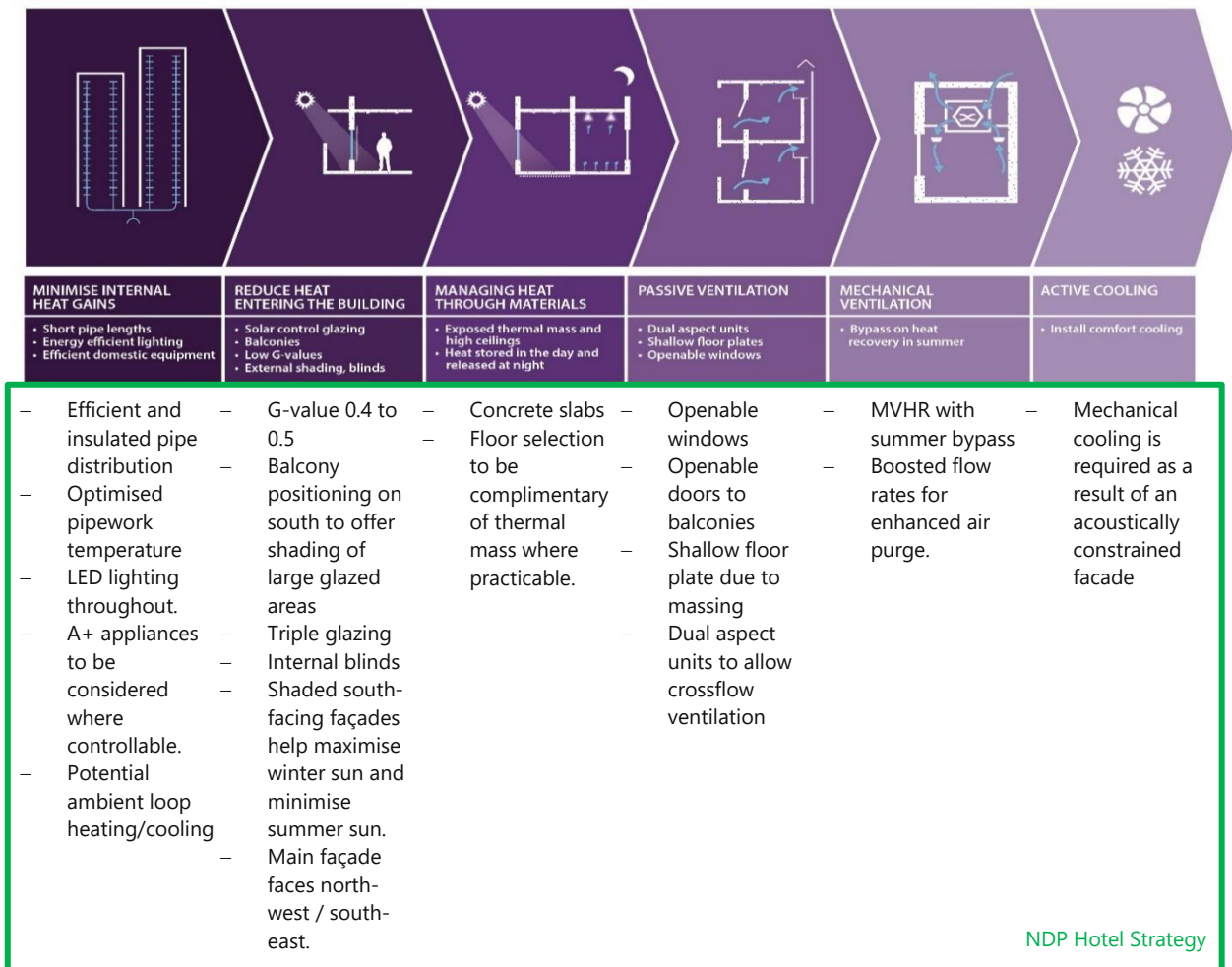
Table 4-8 Biodiversity Policies and Targets

Policies and targets
London Plan, Policy G 5: Urban greening Aim for an Urban Greening Factor of 0.4 in line with GLA London Plan
London Plan, Policy G 6: Biodiversity and access to nature Developments should aim to secure net biodiversity gain
London Plan, Policy G 7 Trees and woodland Existing trees of value retained. Additional trees to be planted with preference of large canopies. Tree replacement valuation method to use: CAVAT or i-Tree Eco or similar.
Development Management DPD 2017: DM19 Nature Conservation Development proposals on sites which are, or are adjacent to, internationally designated sites, Sites of Special Scientific Interest, Local Nature Reserves, Sites of Importance for Nature Conservation or Ecological Corridors, should protect and enhance the nature conservation value of the site.
Tottenham Area Action Plan AAP9 Development proposals for sites adjoining the Green Grid will need to take account of the route and ensure that opportunities are taken to provide new developments which address the route along its built edges.
BREEAM Le 03: Managing impacts on ecology To avoid, or limit as far as possible, negative ecological impacts associated with the site and surrounding areas resulting from the project.
BREEAM Le 04: Ecological change and enhancement To enhance ecological value of the area associated with the site in support of local, regional and national priorities.

4.9 Climate Change and Climate Sensitive Design

Overheating

The current drivers for thermally comfortable design are the GLA's Overheating Mitigation Hierarchy and Building



Regulations Part O 2021. The following diagram outlines the strategy employed on the scheme and how overheating has been mitigated in line with this hierarchy. As stated within policy, all developments must make reasonable endeavours to mitigate overheating risks and ensure cooling demands are managed to prevent excessive energy consumption from air-conditioning systems.

4.9.1 Dynamic Thermal Modelling

Dynamic thermal modelling has been undertaken to help direct the façade design and determine any residual overheating risk. Two sample floors were modelled with the higher risk units on the south-east, south and south-west included. Currently, there is minimal surrounding shading from other buildings to the critical orientations of east, south and west. The future buildings proposed to the east have been excluded to account for a worst-case overheating scenario. The image below shows the dynamic 3D overheating model in IES.

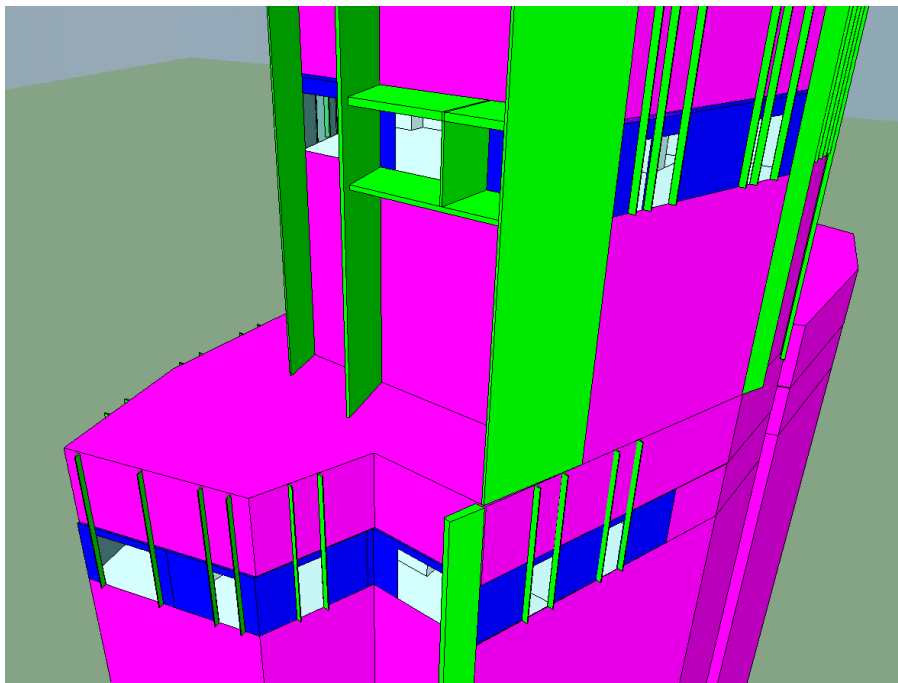


Figure 4-11 Dynamic overheating model in IES

In line with GLA guidance, an “unconstrained” façade has been modelled in the first instance to show the performance without any acoustics constraints. The results in Buro Happold’s Energy Statement show that all spaces comply with the requirements. To resolve the residual overheating risk, as result of an acoustically constrained façade, mechanical cooling will be implemented.

A highly efficient approach to building fabric and MEP systems has been utilised to reduce Carbon Dioxide emissions from the outset. Highly insulated and air-tight fabric has been utilised to reduce heat losses in winter with modest glazed ratios to minimise solar gains during the summer months. A curtain walling façade system is proposed across the whole building, with external shading fins or “projected mullions” providing enhanced solar gain mitigation. The balconies on the south are strategically positioned to shade the glazing from the high-angle southerly sun to minimise overheating risk

Table 4-9 Climate Change and Resilience Policies and Targets

Policies and targets
London Plan, Policy SI 4: Managing heat risk Energy strategy to reduce risk of overheating following cooling hierarchy. TM59 methodology and TM49 for future climate.
Development Management DPD 2017 : DM21 Sustainable Design, Layout and Construction Apply the cooling hierarchy to reduce the potential for overheating and limit reliance on mechanical air conditioning systems
BREEAM Wst 05: Adaptation to climate change To minimise the future need of carrying out works to adapt the building to take account of more extreme weather changes resulting from climate change and changing weather patterns
BREEAM Hea 04: Thermal comfort To ensure the building is capable of providing an appropriate level of thermal comfort.
Development Management DPD 2017 : DM21 Sustainable Design, Layout and Construction Apply the cooling hierarchy to reduce the potential for overheating and limit reliance on mechanical air conditioning systems

4.10 Energy and CO₂ Emissions

In accordance with planning policy, the energy strategy for the development has been developed in alignment with the energy hierarchy; BeLean, BeClean, BeGreen, Be Seen. This approach aims to minimise energy consumption from the outset through the use of efficient massing, passive measures and efficient systems before the deployment of low and zero carbon technologies.

- Lean: Maximise energy efficiency
- Clean: Supply energy efficiently using low carbon heating and cooling systems
- Green: Incorporate renewable energy



Figure 4-12 Energy Hierarchy

The diagram below shows the key passive design measures that are being employed in the scheme.

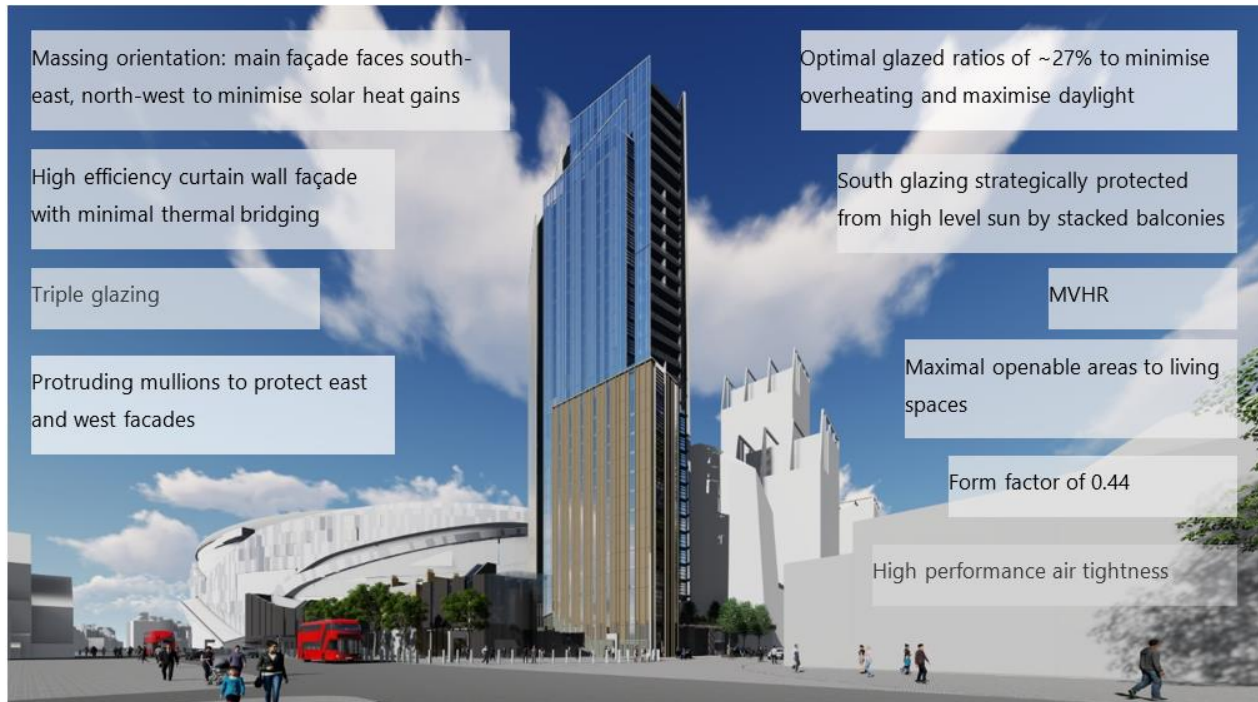


Figure 4-13 Summary of passive design measures

As shown in Table 4-10, it is estimated that the NDP-Hotel project could achieve total site-wide Carbon Dioxide emission reductions of 50% compared to the 35% Part L 2021 baseline. This exceeds the onsite GLA target of 35%. At this stage, the carbon efficiency of the Haringey District Heating network will have the largest impact on the results but this cannot be explored in greater detail until this technical information is available. Until this district heating connection becomes available the development has employed all viable sustainable design measures.

Table 4-10 Table showing estimated carbon reductions at each stage of the energy hierarchy (Part L 2021) - site-wide

	Total regulated emissions (Tonnes CO ₂ / year)	CO ₂ savings (Tonnes CO ₂ / year)	Percentage savings (%)
Part L 2021 baseline	117.5		
Be lean	98.7	18.8	16%
Be clean	56.4	42.2	36%
Be green	59.0	-2.6	-2%
Total Savings	-	58.4	50%
	-	CO ₂ savings off-set (Tonnes CO ₂)	-
Off-set	-	1,770.6	-

Table 4-11 Energy and CO₂ Policies and Targets

Policies and targets
London Plan, Policy SI 2: Minimising greenhouse gas emissions - Reduction in 'Lean' emissions by 15% for non-residential (using Part L 2021 Building Regulations Modelling). - Reduction in total regulated emissions by 35% with net zero requirements with the use of Borough offsetting schemes. Where zero-regulated operational carbon target cannot be fully achieved on-site, any shortfall should be provided through either cash in lieu payments or off-site. At price of £95/tonne for 30 years.
London Plan, Policy SI 3: Energy infrastructure Masterplans to ensure most effective energy supply options, allowing connection to future offsite heat networks
London Plan, Policy SI 4: Managing Heat Risk Proposed development proposals should minimise adverse impacts on the urban heat island through design, layout, orientation, materials and the incorporation of green infrastructure. Major development proposals should demonstrate through an energy strategy how they will reduce the potential for internal overheating and reliance on air conditioning systems in accordance with the cooling hierarchy.
Development Management DPD 2017 : DM22 Decentralised Energy Subject to other policy requirements, proposals that contribute to the provision and use of Decentralised Energy network infrastructure will be supported.
Development Management DPD 2017 : DM21 Sustainable Design, Layout and Construction - Apply the energy hierarchy to minimise energy use in order to meet, and if possible, exceed, minimum carbon dioxide reduction requirements. - Apply the cooling hierarchy to reduce the potential for overheating and limit reliance on mechanical air conditioning systems
BREEAM Ene 01: Reduction of energy use and carbon emissions To minimise operational energy demand, primary energy consumption and CO ₂ emissions.
BREEAM Ene 04: Low carbon design

Policies and targets
To encourage the adoption of design measures, which reduce building energy consumption and associated carbon emissions and minimise reliance on active building services systems.
BREEAM Ene 06: Energy efficient transportation systems
To encourage the specification of energy efficient transportation systems within buildings.
Building Regulation Part L
Part L of the 2021 Building Regulation refers to the Conservation of Fuel and Power. New build non-domestic developments must comply with the approved document L2 via a dynamic energy modelling or SBEM (Simplified Building Energy Model), for calculating the CO2 emission rate of the proposed development from comparing a notional building with the actual building.

4.11 Air Quality

This means reducing the impact the development has on the air quality for the wider community, from air pollutants, Nitrous Oxide, Carbon Monoxide, Carbon Dioxide, PM 2.5 and PM 10. The design team aims to maximise positive air quality, providing clean air externally and internally across the site.

The Air Quality Consultants have assessed the impacts on air quality that the construction of the development will have, pre and post construction. Additionally, Arup's Transport Plan takes into consideration local and London Plan aims for maintaining healthy air quality through their encouragement of zero-carbon active transportation modes.

A site-specific monitoring survey for the development has been undertaken as part of the Air Quality Management Plan (AQMP) for the Consented Scheme. The survey includes one automatic monitoring site measuring NO₂ and PM₁₀ concentrations, and 12 NO₂ diffusion tube monitoring sites, which have been operational since 2019. The monitoring locations are shown in Figure 4-14 and data from these sites are presented in the Air Quality SoC for the NDP Hotel.

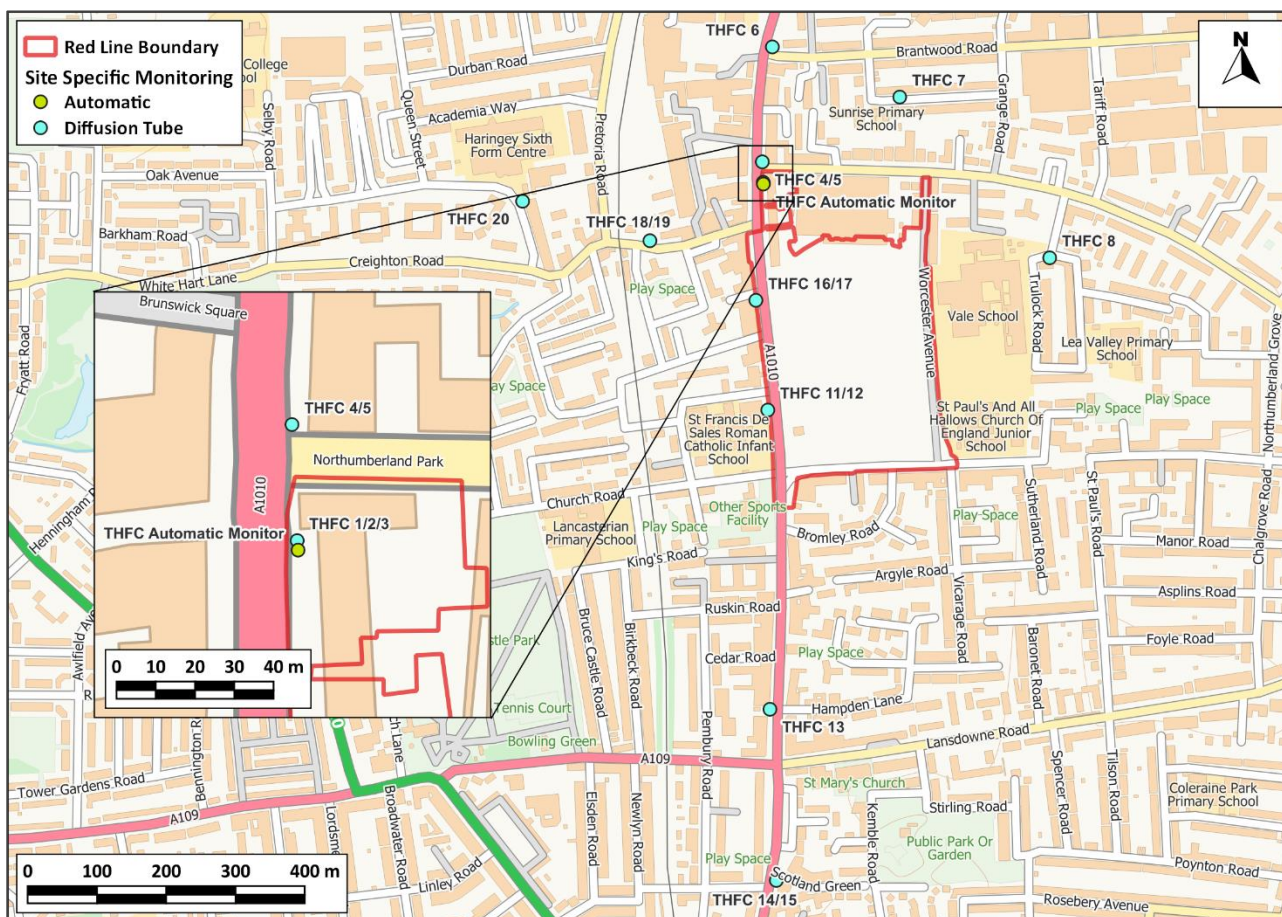


Figure 4-14 Site-Specific Monitoring Locations

4.11.1 Mitigation Measures

Construction Stage

Dispersion modelling has been carried out which assesses construction traffic impacts. From these results the Air Quality Consultants have determined that no change in construction vehicle movements is expected as a result of the Amendments in the Section 73 application (such amendments would be changes to the building form and layout, Increase to the height of the building, an increase in the area of the communal areas without any changes to the maximum permitted number of hotel bedrooms or dwellings in the hotel and changes to the overall floorspace.)

Completed Development

The Air Quality SoC by Quod mentions the Operative Permission which includes a series of measures designed to control road traffic emissions during the operational phase, taking into account sensitive receptors both within and adjacent to the Site. This includes electric vehicle charging infrastructure in line with the London Plan requirements.

Operational traffic movements have been assessed through dispersion modelling and have concluded that there will be less impacts in air quality than those previously predicted as there will be no predicted changes to operational traffic as a result of S 73 Amendments.

The Plot 3 gas boiler has been planned to be replaced with an Air Source Heat Pumps, therefore there will no longer be any building emissions from routine heating and hot water provision within Plot 3 because Air Source Heat Pumps do not have any emissions to air.

Table 4-12 Air Quality Policies and Targets

Policies and targets
London Plan, Policy SI 1: Improving air quality - Seek and deliver further improvements to air quality. Be at least 'Air Quality Neutral' and to show how proposals have considered ways to maximise benefits to local air quality, and b) what measures or design features will be put in place to reduce exposure to pollution, and how they will achieve this. - Environmental Impact Statement to consider how local air quality across Masterplan can be improved including what design features will be put in place.
BREEAM Pol 02: Local air quality To contribute to a reduction in local air pollution through the use of low emission combustion appliances in the building.
DM23: Environmental Protection Air quality assessments will be required for all major development and other development proposals, where appropriate.

5 BREEAM

BREEAM (the Building Research Establishment Environmental Assessment Methodology) sets the standard for best practice in sustainable building design, construction and operation and has become one of the most comprehensive and widely recognised measures of a building's environmental performance.

The BREEAM rating is awarded based on the total number of credits achieved, as shown in Table 5-1. According to the Haringey Sustainable Design and Construction SPD, the council require a minimum of 'Very Good' to be achieved for non-residential buildings. More recently, the Local Plan also sets Very Good as the minimum requirement for buildings at detailed level, but with an aspiration for Excellent where feasible.

Table 5-1 BREEAM rating score requirements

Outstanding	Excellent	Very Good	Good	Pass
≥ 85%	≥ 70%	≥ 55%	≥ 45%	≥ 30%

5.1.1 BREEAM Pre-assessment score

A BREEAM pre-assessment has been undertaken for the Application Site to inform the design and determine the likely achievable rating.

The pre-assessment has been carried out demonstrating that a Very Good score should be readily achievable following all mandatory requirements are met, and "Excellent" attainable with some additional requirements.

A full BREEAM pre-assessment tracker for the project can be found in Appendix A. Note that the tracker should be considered a live document. Also note that the individual targeted credits may vary between this pre-assessment and final certification score.

The following graph shows the credits targeted in each category and the associated risk level based on the current Conceptual Design level of information available.

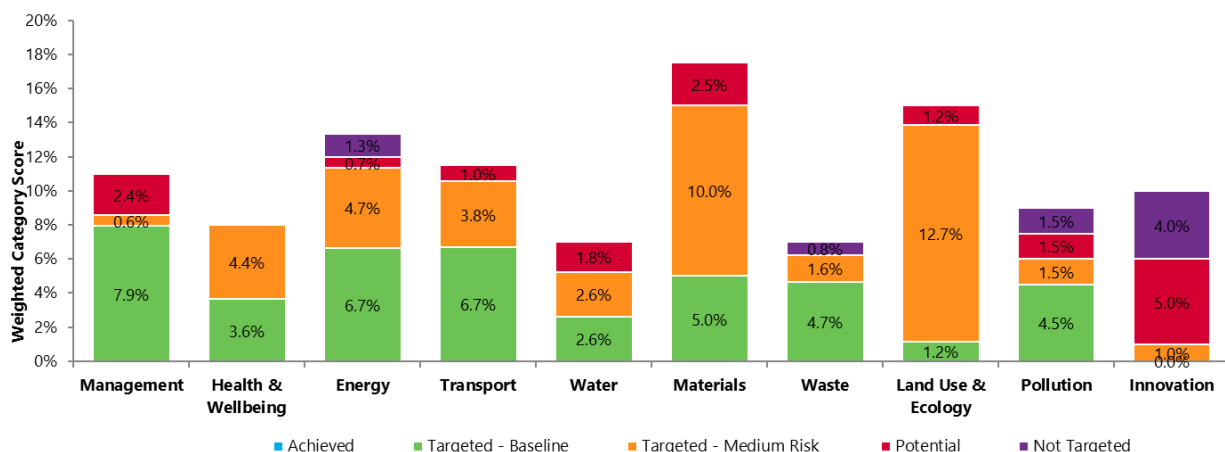
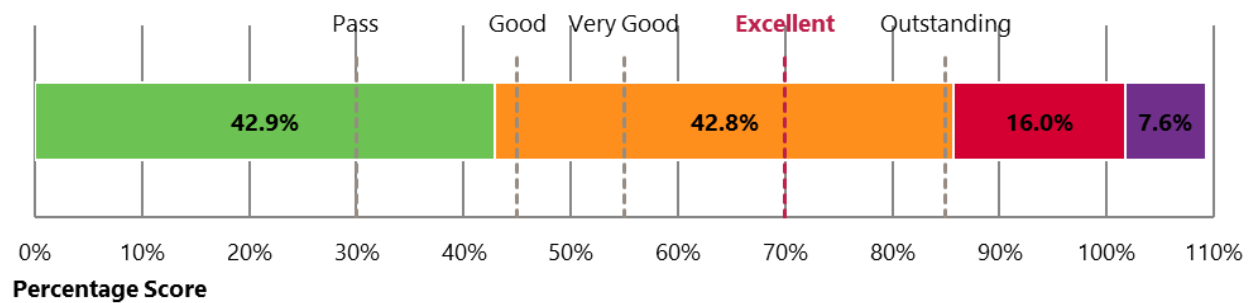


Table 5-2 BREEAM targeted score and associated risk level for each category

Collating the various risk levels gives the following overall score, which demonstrates that BREEAM "Excellent" is achievable.

Table 5-3 Overall BREEAM targeted score



Appendix A – BREEAM Tracker

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