

CONSTRUCTION SKILLS CENTRE & SITE ACCOMMODATION AT FORMER MARIA FIDELIS SCHOOL SITE SUSTAINABILITY STATEMENT

August 2021

1CP01-MDS_ARP-EV-REP-SS08_SL23-990009 – C01

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1 Executive summary

This Sustainability Statement has been produced by the Mace Dragados Joint Venture (MDjv) on behalf of High Speed 2 Ltd (HS2 Ltd), to support a full planning application for a Construction Skills Centre and Site Accommodation at the former Maria Fidelis school site (the 'Proposed Development'). The Proposed Development is required for a temporary period of 10 years from occupation and will be removed following the construction of HS2 Euston Station.

This document describes the proposed approach to the delivery of a sustainable development that satisfies requirements and priorities set out in the planning context and by the users.

This approach has been set out against a range of sustainability themes which have been used to communicate the sustainable design principles to the design team, client and wider stakeholders.

This document addresses the following issues:

- Review of relevant planning policy
- Summaries of the design response and key sustainability strategies
- BREEAM Pre-Assessment

This statement should be reviewed alongside the associated suite of supplementary planning documents that will be submitted for this application. These include:

- Planning Statement – 1CP01-MDS_ARP-TP-REP-SS08_SL23-990005
- Design and Access Statement – 1CP01-MDS_FBM-AR-STA-SS08_SL23-00000
- Landscape Report – 1CP01-MDS_FBM-LS-REP-SS08_SL23-000001
- Energy Statement – 1CP01-MDS_MFL-PL-REP-SS08_SL22-000002
- Flood Risk Assessment – 1CP01-MDS_ARP-EV-REP-SS08_SL23-990007
- Acoustic Assessment – 1CP01-MDS_ARP-EV-REP-SS08_SL23-990008
- Transport Assessment – 1CP01-MDS_ARP-TM-REP-SS08_SL23-990010
- Travel Plan – 1CP01-MDS_ARP-TM-REP-SS08_SL23-990011
- Air Quality Assessment Report – 1CP01-MDS_ARP-EV-REP-SS08_SL23-990010
- Site Contamination Report – 1CP01-MDS_ARP-EV-REP-SS08_SL23-990006

A number of key sustainability strategies have been embedded in the scheme to reflect the sustainability policy context, including:

- Energy – On-site reduction in carbon emissions of 46%, with residual emissions offset to achieve net zero carbon.
- Materials – Modular design allows the building to retain flexibility in its configuration to meet any changing needs throughout its life cycle and reduce waste in line with circular economy principles.
- Waste – 95% of construction, demolition and excavation waste to be diverted from landfill.
- Flood risk – Proposed drainage arrangement, including SuDS, to provide in excess of a 90% betterment in run-off rates over the existing site.
- Pollution – All-electric plant to contribute to the Proposed Development meeting the requirements for air quality neutrality in accordance with London Plan Policy SI 1.

In addition, the Proposed Development is being assessed under the BREEAM UK New Construction 2018 scheme and has been developing in line with a target rating of 'Very Good'. This target does not meet the Camden Local Plan Policy CC2 requirement of Excellent, but it was discussed and agreed in pre-applications that Very Good is acceptable due to the temporary

nature of the Proposed Development. The current projected score is 66.14%. This currently exceeds the minimum threshold of 55% for Very Good, the project team have been advised that a buffer of at least 5% (i.e. minimum of 60%) should be maintained and secured during the following design stages and throughout construction to ensure the rating is achieved.

2 Introduction

2.1.1 This Sustainability Statement has been produced by the Mace Dragados Joint Venture (MDjv) on behalf of High Speed 2 Ltd (HS2 Ltd), to support a full planning application for a Construction Skills Centre and Site Accommodation at the former Maria Fidelis school site (the 'Proposed Development'). The Proposed Development would provide:

- a Construction Skills Centre ('CSC') on behalf of London Borough of Camden ('LBC'), for which a similar scheme was previously granted planning permission under LBC application reference 2019/3091/P; and
- a Site Accommodation facility to accommodate approximately 2,500 site operatives and management staff, including office space, ancillary rooms, WCs, showers and changing rooms, and on-site catering. This is required as part of the High Speed Two ('HS2') railway project and will facilitate the construction of HS2 Euston Station.

2.1.2 The Proposed Development is required for a temporary period of 10 years from occupation and will be removed following the construction of HS2 Euston Station.

2.1.3 A summary of the application and how this report fits into the suite of documents can be found in the Planning Statement.

2.1.4 The Camden Sustainability and Energy Proforma for the Proposed Development can be found in Appendix B of this document.

2.2 Site description

2.2.1 The site is located in the northern part of the former Maria Fidelis Catholic School in the LBC. The site is currently vacant but had most recently been used as outdoor play space associated with the school and a two-storey ancillary school building, constructed in the 1990s, remains on-site.

2.2.2 The land immediately to the south of the site is occupied by the five-storey former school building, which was constructed in the interwar period. Planning consent was granted (subject to completion of s.106 agreement) in October 2020 for the mixed-use redevelopment of the former school building.

2.2.3 The surrounding area is a mix of residential and commercial uses, with Euston Station located to the north east. To the north of the site is the HS2 Euston Station construction site, which was formerly St. James' Gardens.

2.2.4 The site is accessed via North Gower Street to the west and via Cobourg Street to the east. Starcross Street is located to the south of the wider Maria Fidelis site and connects North Gower Street and Cobourg Street. Hampstead Road is located beyond North Gower Street to the west of the site. There are no Listed buildings on-site and the application site is not within a Conservation Area. The buildings on the eastern

(no's 190-204) and western (no's 211-229) North Gower Street, located approximately 100 metres to the south of the site, are Grade II Listed. 108 Hampstead Road, located 20 metres to the north east of the application site, is Locally Listed.

2.3 Description of development

- 2.3.1 The description of the development is as follows:
- 2.3.2 Erection of a six-storey combined Construction Skills Centre (Class F1(a) - Education) and Site Accommodation (Class E(g)(i) – Offices) to facilitate the construction of HS2 Euston station, as meanwhile uses for a period of up to 10 years from occupation.
- 2.3.3 The Proposed Development would provide 1,378sqm of CSC floorspace and 5,747sqm of Site Accommodation floorspace. The overall site area is 0.24ha. The maximum height of the building would be 22.4m and the building would be 77m wide and 18m deep.
- 2.3.4 The building would utilise modular construction, using modern methods of construction and assembly on-site to the form described above.
- 2.3.5 Vehicular access to the Site Accommodation would be delivered via a combination of the existing HS2 worksite to the north and Cobourg Street. Vehicular access arrangements for the Site Accommodation would change throughout the construction and operational period to accommodate wider HS2 works to the north of the site. Vehicular access for the Construction Skills Centre would remain as previously approved with infrequent servicing use of North Gower Street (consented under extant permission 2019/3091/P).
- 2.3.6 Pedestrian access to the Construction Skills Centre would be via the open space to the south of the building. Pedestrian access to the Site Accommodation would from Hampstead Road and through the existing HS2 worksite to the north.

3 Planning Context

3.1 Overview

3.1.1 This Statement has been prepared in response to the planning requirements and guidelines outlined in the following documents:

- National Planning Policy Framework (February 2019) and relevant planning practice guidance.
- Sustainable Design and Construction Supplementary Planning Guidance (GLA, April 2014).
- The London Plan (Greater London Authority (GLA), March 2021).
- Camden Local Plan (Camden Council, 2017, 'current CLP').
- Camden Planning Guidance (CPGs): Air Quality (January 2021), Biodiversity (March 2018), Energy efficiency and adaptation (January 2021), Planning for health and wellbeing (January 2021), Transport (January 2021), Trees (March 2021), and Water and Flooding (March 2019).
- Euston Area Plan (January 2015).

3.2 National Planning Policy Framework

3.2.1 The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how these are expected to be applied. It provides guidance for local planning authorities drawing up local plans and is a material consideration for those determining applications.

3.2.2 The NPPF sets out a presumption in favour of sustainable development, and the need to support sustainable economic growth through the planning system. It identifies three overarching objectives as follows:

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

3.2.3 Planning plays a key role in shaping places to secure meaningful reductions in greenhouse gas emissions, providing resilience to the impacts of climate change and supporting the delivery of renewable and low carbon energy and associated infrastructure. This is central to the economic, social and environmental dimensions of sustainable development.

3.3 The Sustainable Design and Construction SPG

3.3.1 The Mayor of London's Supplementary Planning Guidance (SPG) on Sustainable Design and Construction, published in April 2014, contains guidance on the implementation of relevant London Plan policies and forms part of the Implementation Framework for the London Plan (2016). The document is a material planning consideration when determining planning applications made to the Mayor.

3.3.2 Since the publication of the SPG, a new London Plan (2021) has been adopted (see Section 0).

3.3.3 The SPG provides guidance in three main areas as shown below and links these to this guidance to the relevant London Plan Policies:

1 Resource management

- Land
- Site layout and building design
- Energy and carbon dioxide emissions
- Renewable energy
- Water efficiency
- Materials and Waste
- Nature conservation and biodiversity

2 Adapting to climate change and greening the city

- Tackling increased temperature and drought
- Increasing green cover and trees
- Flooding

3 Pollution management – land, air, noise, light and water

- Land contamination
- Air pollution
- Noise
- Light pollution
- Water pollution

3.4 London Plan 2021

- 3.4.1 The Greater London Authority (GLA) London Plan, published on March 2021, sets out a new way of delivering 'Good Growth' which focuses on sustainable development and is defined as follows:
- 3.4.2 'Good Growth is about working to re-balance development in London towards more genuinely affordable homes for working Londoners to buy and rent. And it's about delivering a more socially integrated and sustainable city, where people have more of a say and growth brings the best out of existing places while providing new opportunities to communities.'
- 3.4.3 The London Plan Chapter 9: Sustainable Infrastructure, sets out the new targets for sustainable design. It includes the following strategic policies that are relevant for this development's sustainable building design:
- Policy SI1 Improving air quality
 - Policy SI2 Minimising greenhouse gas emissions
 - Policy SI3 Energy Infrastructure
 - Policy SI4 Managing heat risk
 - Policy SI5 Water infrastructure
 - Policy SI6 Digital connectivity infrastructure
 - Policy SI7 Reducing waste and supporting the circular economy
 - Policy SI8 Waste capacity and net waste self sufficiency
 - Policy SI9 Safeguarded waste sites
 - Policy SI10 Aggregates
 - Policy SI12 Flood risk management
 - Policy SI13 Sustainable drainage
- 3.4.4 Other policies from the London Plan contained in Chapter 3 Design, Chapter 5 Social Infrastructure, Chapter 6 Economy, Chapter 8 Green Infrastructure and Natural Environment or Chapter 10 Transport are also relevant to this project.

3.5 Camden Local Plan 2017

3.5.1 On the local level, the site falls under the jurisdiction of LBC. The Camden Local Plan sets out the LBC's planning policies and replaces the Core Strategy and Development Policies planning documents (adopted in 2010). It ensures that LBC continues to have robust, effective and up-to-date planning policies that respond to changing circumstances and the borough's unique characteristics and contribute to delivering the Camden Plan and other local priorities. The Local Plan covers the period from 2016-2031.

3.5.2 The key policies regarding energy efficiency and renewable energy in the Camden Local Plan are summarised below.

Policy C1 Health and wellbeing

3.5.3 The Council will improve and promote strong, vibrant and healthy communities through ensuring a high quality environment with local services to support health, social and cultural wellbeing and reduce inequalities.

3.5.4 Measures that will help contribute to healthier communities and reduce health inequalities must be incorporated in a development where appropriate.

3.5.5 The Council will require:

- development to positively contribute to creating high quality, active, safe and accessible places; and
- proposals for major development schemes to include a Health Impact Assessment (HIA).

Policy A3 Biodiversity

3.5.6 The Council will protect and enhance sites of nature conservation and biodiversity. The Council will:

- secure improvements to green corridors, particularly where a development scheme is adjacent to an existing corridor;
- seek to improve opportunities to experience nature, in particular where such opportunities are lacking;
- require the demolition and construction phase of development, including the movement of works vehicles, to be planned to avoid disturbance to habitats and species and ecologically sensitive areas, and the spread of invasive species;
- secure management plans, where appropriate, to ensure that nature conservation objectives are met; and
- resist the loss of trees and vegetation of significant amenity, historic, cultural or ecological value including proposals which may threaten the continued wellbeing of such trees and vegetation.

Policy D1 Design

3.5.7 The Council will seek to secure high quality design in development. The Council requires that development:

- respects local context and character;
- is sustainable in design and construction, incorporating best practice in resource management and climate change mitigation and adaptation;
- is of sustainable and durable construction and adaptable to different activities and land uses;
- integrates well with the surrounding streets and open spaces, improving movement through the site and wider area with direct, accessible and easily recognisable routes and contributes positively to the street frontage;
- is inclusive and accessible for all;
- promotes health;
- responds to natural features and preserves gardens and other open space;
- incorporates outdoor amenity space; and
- preserves strategic and local views.

3.5.8 The Council will resist development of poor design that fails to take the opportunities available for improving the character and quality of an area and the way it functions.

Policy CC1 Climate change mitigation

3.5.9 The Council requires all development to minimise the effects of climate change and encourage all developments to meet the highest feasible environmental standards that are financially viable during construction and occupation. The Council will:

- promote zero carbon development and require all development to reduce carbon dioxide emissions through following the steps in the energy hierarchy;
- require all major development to demonstrate how London Plan targets for carbon dioxide emissions have been met;
- ensure that the location of development and mix of land uses minimise the need to travel by car and help to support decentralised energy networks;
- support and encourage sensitive energy efficiency improvements to existing buildings;
- require all proposals that involve substantial demolition to demonstrate that it is not possible to retain and improve the existing building; and
- expect all developments to optimise resource efficiency.

3.5.10 For decentralised energy networks, The Council will promote decentralised energy by:

- working with local organisations and developers to implement decentralised energy networks in the parts of Camden most likely to support them.

Policy CC2 Adapting to climate change

3.5.11 The Council will require development to be resilient to climate change. All development should adopt appropriate climate change adaptation measures such as:

- The protection of existing green spaces and promoting new appropriate green infrastructure.
- Not increasing, and wherever possible reducing, surface water run-off through increasing permeable surfaces and use of Sustainable Drainage Systems.
- Incorporating bio-diverse roofs, combination green and blue roofs and green walls where appropriate.
- Measures to reduce the impact of urban and dwelling overheating, including application of the cooling hierarchy.
- Any development involving 5 or more residential units or 500 sqm or more of any additional floorspace is required to demonstrate the above in a Sustainability Statement.

3.5.12 The Council will promote and measure sustainable design and construction by:

- ensuring development schemes demonstrate how adaptation measures and sustainable development principles have been incorporated into the design and proposed implementation; and
- expecting non-domestic developments of 500 sqm of floorspace or above to achieve "excellent" in BREEAM assessments and encouraging zero carbon in new development from 2019.

Policy CC3 Water and flooding

3.5.13 The Council will seek to ensure that development does not increase flood risk and reduces the risk of flooding where possible. The Council will require development to:

- incorporate water efficiency measures;
- avoid harm to the water environment and improve water quality;
- consider the impact of development in areas at risk of flooding (including drainage);
- incorporate flood resilient measures in areas prone to flooding;
- utilise Sustainable Drainage Systems (SuDS) in line with the drainage hierarchy to achieve a greenfield run-off rate where feasible; and
- not locate vulnerable development in flood-prone areas.

3.5.14 Where an assessment of flood risk is required, developments should consider surface water flooding in detail and groundwater flooding where applicable.

Policy CC4 Air quality

3.5.15 The Council will ensure that the impact of development on air quality is mitigated and ensure that exposure to poor air quality is reduced in the borough.

- 3.5.16 The Council will take into account the impact of air quality when assessing development proposals, through the consideration of both the exposure of occupants to air pollution and the effect of the development on air quality.
- 3.5.17 Consideration must be taken to the actions identified in the Council's Air Quality Action Plan.
- 3.5.18 Air Quality Assessments (AQAs) are required where development is likely to expose residents to high levels of air pollution. Where the AQA shows that a development would cause harm to air quality, the Council will not grant planning permission unless measures are adopted to mitigate the impact.
- 3.5.19 Similarly, developments that introduce sensitive receptors (i.e. housing, schools) in locations of poor air quality will not be acceptable unless designed to mitigate the impact.
- 3.5.20 Development that involves significant demolition, construction or earthworks will also be required to assess the risk of dust and emissions impacts in an AQA and include appropriate mitigation measures to be secured in a Construction Management Plan.

Policy CC5 Waste

- 3.5.21 The Council will seek to make Camden a low waste borough. They will:
- aim to reduce the amount of waste produced in the borough and increase recycling and the reuse of materials to meet the London Plan targets of 50% of household waste recycled/composted by 2020 and aspiring to achieve 60% by 2031;
 - deal with North London's waste by working with our partner boroughs in North London to produce a Waste Plan, which will ensure that sufficient land is allocated to manage the amount of waste apportioned to the area in the London Plan;
 - safeguard Camden's existing waste site at Regis Road unless a suitable compensatory waste site is provided that replaces the maximum throughput achievable at the existing site; and
 - make sure that developments include facilities for the storage and collection of waste and recycling.

Policy T1 Prioritising walking, cycling and public transport (extract)

- 3.5.22 The Council will promote sustainable transport by prioritising walking, cycling and public transport in the borough.
- 3.5.23 In order to promote walking in the borough and improve the pedestrian environment, the Council will seek to ensure that developments:
- improve the pedestrian environment by supporting high quality public realm improvement works;
 - make improvements to the pedestrian environment including the provision of high quality safe road crossings where needed, seating, signage and landscaping;

- are easy and safe to walk through ('permeable');
- are adequately lit; and
- provide high quality footpaths and pavements that are wide enough for the number of people expected to use them. Features should also be included to assist vulnerable road users where appropriate.

3.5.24 In order to promote cycling in the borough and ensure a safe and accessible environment for cyclists, the Council will seek to ensure that development:

- provides for and makes contributions towards connected, high quality, convenient and safe cycle routes,
- provides for accessible, secure cycle parking facilities exceeding minimum standards
- makes provision for high quality facilities that promote cycle usage including changing rooms, showers, dryers and lockers; and
- is easy and safe to cycle through ('permeable').

Policy T2 Parking and car-free development

3.5.25 The Council will limit the availability of parking and require all new developments in the borough to be car-free. They will:

- not issue on-street or on-site parking permits in connection with new developments and use legal agreements to ensure that future occupants are aware that they are not entitled to on-street parking permits;
- limit on-site parking to:
- spaces designated for disabled people where necessary, and/or
- essential operational or servicing needs;
- support the redevelopment of existing car parks for alternative uses; and
- resist the development of boundary treatments and gardens to provide vehicle crossovers and on-site parking.

Policy T3 Transport infrastructure

3.5.26 The Council will seek improvements to transport infrastructure in the borough. They will:

- not grant planning permission for proposals which are contrary to the safeguarding of strategic infrastructure improvement projects; and
- protect existing and proposed transport infrastructure, particularly routes and facilities for walking, cycling and public transport, from removal or severance.

4 Design Response: Maria Fidelis

4.1 Resource Management

Land

London Plan 2021	<ul style="list-style-type: none"> • Policy D2 Infrastructure requirements for sustainable densities • Policy D3 Optimising site capacity through the design-led approach
Camden Local Plan 2017	<ul style="list-style-type: none"> • Policy A1 Managing the impact of development • Policy D1 Design • Policy D2 Heritage
Camden Planning Guidance	<ul style="list-style-type: none"> • Design CPG January 2021

- 4.1.1 The objective of the Proposed Development is to provide a new-build Construction Skills Centre (CSC) for LBC and Site Accommodation for the construction works of HS2 Euston Station.
- 4.1.2 The design is to facilitate the co-existence of the two independent uses within one combined building. Combining the functions will offer benefits to both projects and the local community through linking training to employment requirements on site for local people, upskilling the construction workforce.
- 4.1.3 The modularisation of the building facilitates this co-existence by allowing the building to retain flexibility in its design and configuration to meet any changing needs throughout its life cycle; ensuring a more efficient use of the land.
- 4.1.4 In addition to operational benefits of modularisation, it will help to increase the speed at which the Proposed Development can be constructed. Groundworks and foundations can be completed while modules are manufactured off site, meaning the project can be delivered up to 70% faster than traditional construction methods.
- 4.1.5 Furthermore, it encourages less disruption and increased safety: modules can be installed in a matter of days, resulting in 90% less vehicle movements so the site can operate as usual while construction work is carried out.

Considerate Constructors Scheme

- 4.1.6 Impacts on neighbours from construction will also be mitigated by ensuring that the Contractor will comply with best practice on the Considerate Constructors Scheme (CCS). The CCS is a national initiative set up by the UK construction industry to improve its image. Sites and companies that register with the scheme sign up and are monitored against a Code of Considerate Practice, designed to encourage best practice beyond statutory requirements.
- 4.1.7 The Proposed Development will comply with the wider HS2 Euston development's CCS certification which is targeting a score of 40 or more, with at least 7 in each of the five sections. In addition, the development will pursue additional best practice construction practices to achieve exemplary performance under BREEAM 2018 credit Man 03, which includes ensuring:
- clear and safe access in and around the building at handover;
 - fleet operators undertake driver training and awareness to promote safety on and offsite; and
 - fleet operators capture and investigate any road accidents, incidents and near misses and report these to the contractor. The contractor must then analyse these.

Site layout and building design

London Plan 2021	<ul style="list-style-type: none"> • Policy GG3 Creating a healthy city • Policy D3 Optimising site capacity through the design-led approach • Policy D8 Public realm • Policy G4 Open space
Camden Local Plan 2017	<ul style="list-style-type: none"> • Policy A2 Open space • Policy C1 Health and wellbeing • Policy C2 Community facilities • Policy C6 Access for all
Camden Planning Guidance	<ul style="list-style-type: none"> • Public open space CPG January 2021 • Planning for health and wellbeing CPG January 2021 • Design CPG Jan 2021

Local context and character

- 4.1.8 The Proposed Development is intended as a 'Meanwhile' use to the site for an estimated 10 years. As such, the approach to the appearance aims to reflect this 'temporary' nature by using methods and materials that are in contrast to the 'long term' existing context.
- 4.1.9 The diverse uses of the project will each use different materials to emphasise the multi-purpose nature of the Proposed Development. The CSC is intended to look temporary and light industrial to read with the 'Meanwhile' programme and construction processes inside. The Site Accommodation will display a vinyl pattern with colours that are common to the local vernacular to help break up the mass of the building, providing a modern backdrop to a temporary building.
- 4.1.10 A new public open space will be provided on the Maria Fidelis site adjacent to Starcross Street, which was previously consented as part of a planning application reference no. 2019/3091/P and does not form part of this application. This will provide pedestrian access to the CSC.
- 4.1.11 Ultimately, this will respond to the London Plan Policy D8 which aims to encourage design-led approaches and creating a sense of place.

Sustainable design and durability

- 4.1.12 The Proposed Development is largely comprised of modules; pre-fabricated units which have been constructed using off-site manufacture. The modules can be connected side-by-side, end-to-end or in multiple storeys to make buildings of any scale or layout. This enables the modules to be easily expanded, reduced, reconfigured or relocated to meet the changing needs, and it delivers a more efficient way to minimise the construction time and impacts of the project.
- 4.1.13 To improve the durability of the building design, exposed elements of the building will be designed to limit degradation due to environmental factors through an assessment of elemental resilience. Relevant standards for durability will be evaluated and met where appropriate as set out in guidance for BREEAM credit Mat 05 'Designing for durability and resilience'. The pattern of the vinyl wrap to the Proposed Development has been designed to reflect heat, reducing the Urban Heat Island effect.

Access

- 4.1.14 A clear access strategy has underpinned the design approach to the Proposed Development. Considering the needs of all users alongside the requirements of servicing strategies raises a number of issues which have influenced the design.
- 4.1.15 The principles of access, servicing and deliveries is to keep the two uses completely apart and separate from one another. The design will offer access to the different buildings at different times throughout construction and operation.
- 4.1.16 This will aim to promote safe access around the site and outdoor space that enhances the wellbeing of building users.

Secure design and crime prevention through urban design

- 4.1.17 The design team have met with the Metropolitan Police at an early stage in the design process with the aim of achieving Secured By Design (SBD) accreditation for the Proposed Development. SBD aims to utilise design principles and products in the built environment that reduce the risk of crime by combining minimum standards of physical security and proven principles of natural surveillance and defensible space.
- 4.1.18 The Designing out Crime Officer (DOCO) has advised on a number of security recommendations and solutions to reflect the site-specific needs. These will be addressed in the design, which will also contribute to the achievement of BREEAM credit Hea 06 'Security'.

Transport

London Plan 2021	<ul style="list-style-type: none"> • Policy T1 Strategic approach to transport • Policy T2 Healthy streets • Policy T3 Transport capacity, connectivity and safeguarding • Policy T4 Assessing and mitigating transport impacts • Policy T5 Cycling • Policy T6 Car parking • Policy T7 Deliveries, servicing and construction
Camden Local Plan 2017	<ul style="list-style-type: none"> • Policy T1 Prioritising walking, cycling and public transport • Policy T2 Parking and car-free development • Policy T3 Transport infrastructure
Camden Planning Guidance	<ul style="list-style-type: none"> • Transport CPG January 2021

4.1.19 This section summarises the approach for providing more sustainable access to transport and amenities at the Proposed Development. This is detailed further within the Transport Assessment (TA) (1CP01-MDS_ARP-TM-REP-SS08_SL23-990010) and Travel Plan (TP) (1CP01-MDS_ARP-TM-REP-SS08_SL23-990011), which should be read alongside this statement.

Existing site context

4.1.20 The site is located close to walking and cycling routes, and within walking distance to a range of bus services as well as London Underground and National Rail services from a number of nearby stations. The site has the highest achievable Public Transport Accessibility Level (PTAL) of 6b.

4.1.21 The Proposed Development is not expected to have any significant impacts on the capacity of the local transport network due to wide range of highly frequent public transport services available.

Sustainable transport measures

4.1.22 Measures to encourage sustainable and active travel patterns will be implemented as part of the project's Travel Plan. This package of measures includes:

- Distribution of welcome packs to all staff and pupils upon occupation to provide information on the local walking, cycling and public transport networks.
- Notice boards to be provided in prominent, communal and accessible areas within CSC and Site Accommodation to provide latest transport information and contact details.
- Access to umbrellas and initiatives such as National Walking Month or the 10,000-step challenge to further encourage walking for site staff in all weather conditions.
- Provision of an interest-free season ticket loan for staff.
- Promote use of route planners (e.g. TfL Journey Planner, City Mapper) and provide information about carrying cycles on trains.

Cycle storage and facilities

4.1.23 The Proposed Development will be provided with long-stay and short-stay cycle parking spaces for both the CSC and Site Accommodation uses in accordance with the London Plan. This is summarised in Table 1.

Table 1. Proposed cycle parking provision.

Use Class	Land Use	London Plan (2021) requirements	Proposed Cycle Parking
B1	Business Offices	88	98
D1	College	32	40
	Total	120	138

4.1.24 Showers, changing and drying facilities and lockers will also be provided and coupled with measures such as interest-free cycle loans, discounts at local bike shops, cycle maintenance classes and the establishment of a Bicycle User Group (BUG) to further encourage cycling for site users.

Energy and carbon dioxide emissions

London Plan 2021	<ul style="list-style-type: none"> • Policy SI2 Minimising greenhouse gas emissions • Policy SI3 Energy infrastructure
Camden Local Plan 2017	<ul style="list-style-type: none"> • Policy CC1 Climate change mitigation • Policy CC2 Adapting to climate change
Camden Planning Guidance	<ul style="list-style-type: none"> • Energy efficiency and adaptation CPG Jan 2021

4.1.26 The energy strategy for the Proposed Development has been designed in line with the energy hierarchy outlined in Policy SI2 Minimising greenhouse gas emissions of the London Plan:

- Be Lean: use less energy and manage demand during operation.
- Be Clean: exploit local energy resources (such as secondary heat) and supply energy efficiently and cleanly.
- Be Green: maximise opportunities for renewable energy by producing, storing and using renewable energy on-site.
- Be Seen: monitor, verify and report on energy performance.

4.1.27 These measures are summarised below and outlined in more detail within the Energy Statement (1CP01-MDS_MFL-PL-REP-SS08_SL22-000002), which should be read alongside this statement.

Be Lean

4.1.28 Passive measures have been incorporated into the scheme design in order to reduce the Site's energy demand. These include:

- Thermal performance of the fabric has been optimised to deliver a best case scenario for energy savings given the modular nature of the building.
- Glazing areas of 30% of the floor area on South-facing walls, with areas of 40% on West/East/North-facing walls.
- Solar control glazing with a G value of 0.4 is proposed on the East, West and South façades to avoid summer overheating and reduce cooling demand.
- Minimum standard of 5m³/m²/hr @ 50 Pa has been specified for air permeability to achieve a reasonable level of air tightness to improve efficiency and comfort.
- High efficiency LED light fittings (efficacy of 80 lumens/W) will be specified.
- All occupied spaces will be mechanically ventilated, and Air Handling units will include high efficiency heat exchangers to allow heat to be recovered from stale air in the winter, leading to lower heating demands.

4.1.29 Passive and energy efficiency measures are applied to reduce energy consumption as far as practically possible. The modular nature of the building means that it will not be possible to achieve particularly high levels of thermal fabric performance, although

working with standard modular building elements will help to minimise embodied carbon and waste.

- 4.1.30 The measures proposed at the Be Lean stage of the hierarchy will result in a <1% reduction in CO2 emissions from the Part L baseline, using SAP10 carbon factors.

Be Clean

- 4.1.31 Utilisation of a local district heating network has not been considered for the following reasons:

- The relatively short predicted life span of the new and existing buildings
- Cost to extend the network
- Electric heat sources are preferred, considering the planned decarbonisation of the National grid

- 4.1.32 Rather than investing in an extension to the network, which could potentially become redundant in 10 years' time, the installation of a combined VRF heating and cooling system is proposed.

- 4.1.33 The cost saved from not extending the network / installing a separate wet heating system, can be spent on good quality, high efficiency VRF electric heat pumps. These could be re-used on other projects if the site is re developed as planned.

- 4.1.34 Therefore, the measures proposed at the Be Clean stage of the hierarchy will result in a 0% reduction in CO2 emissions from the Part L baseline, using SAP10 carbon factors.

Be Green

- 4.1.35 To reduce CO2 emission associated with the Proposed Development, a number of renewable energy technologies have been evaluated, taking into consideration their potential to reduce emissions, their cost and the spatial limitations of the building and site.

- 4.1.36 Air source heat pumps (ASHP) have been identified as the most appropriate technology to utilise for the Proposed Development. It is proposed that an electrically driven VRF heat pump system will provide cooling and heating to all occupied areas.

- 4.1.37 The hot water for spaces with a large demand like changing facilities and the commercial kitchen will be generated via a dedicated electric ASHP system.

- 4.1.38 For both the Heating & Cooling and Hot Water systems, the COP of the ASHPs considered is 3.5.

- 4.1.39 The measures proposed at the Be Green stage of the hierarchy will result in a 46% reduction in CO2 emissions from the Part L baseline, using SAP10 carbon factors.

4.1.40 This means that, using SAP10 carbon factors, the London Plan target of 35% carbon reduction on site is achieved.

Be Seen

4.1.41 The energy use associated with all major items of plant equipment will be monitored to enable a minimum of 90% of the energy used in the building to be easily attributed to an end use.

4.1.42 This will include the provision of meters to allow the separate metering of space heating, cooling, air handling plant, domestic hot water (in areas with a large water demand), lighting and small power.

4.1.43 Meters will be positioned to allow the energy use per floor or distinct area (such as the Comerica kitchen) to be monitored and recorded separately.

4.1.44 Meters will be connected to a dedicated energy management system (to be provided as part of the Building management system).

4.1.45 The metering strategy will be developed in line with the Client's brief and guidance from the system manufacturer for the energy management system.

Net zero carbon

4.1.46 To achieve net zero carbon, the remaining annual carbon emissions associated with operational energy will be offset in line with guidance given in the London Plan.

4.1.47 A contribution of £95 per tonne of carbon dioxide will be made to the carbon offset fund chosen by the LBC. It has been agreed with LBC that this is only payable over the 10-year lifespan of the building.

4.1.48 The total annual contribution will be around £9,025 (95 x £95), to account for the 95 tonnes that is predicted to be emitted once all energy saving measures have been implemented.

Water efficiency

London Plan 2021	<ul style="list-style-type: none">• Policy SI5 Water infrastructure
Camden Local Plan 2017	<ul style="list-style-type: none">• Policy CC3 Water and flooding
Camden Planning Guidance	<ul style="list-style-type: none">• Water and flooding CPG March 2019

4.1.49 To deliver a more water efficient design for the Proposed Development, the approach for the project focusses first on minimising demand, and then on improving the ability to monitor and control the water supply. This reduces both potable water consumption and wastewater discharge to the Thames Water Utility infrastructure.

4.1.50 Water use reduction measures will be as follows:

- Specify low flush and flow fittings sufficient to reduce water consumption.
- Water main shall be provided with utility meters incorporating pulsed BMS output, and leak detection system enable to detect non-typical water usage.
- Specify flow control devices (e.g. solenoid and PIR) that regulate the water supply to each WC area or sanitary facility according to demand, in order to minimise undetected wastage and leaks from sanitary fittings and supply pipework.

4.1.51 The building is targeting three credits under BREEAM Wat 01, which equates to a 40% improvement over baseline building water consumption. This exceeds the minimum of one credit stipulated by London Plan Policy SI 5.

Materials and waste

London Plan 2021	<ul style="list-style-type: none"> • Policy SI2 Minimising greenhouse gas emissions • Policy SI8 Waste capacity and net waste self-sufficiency • Policy SI7 Reducing waste and supporting the circular economy
Camden Local Plan 2017	<ul style="list-style-type: none"> • Policy CC5 Waste
Camden Planning Guidance	<ul style="list-style-type: none"> • Energy efficiency and adaptation CPG Jan 2021

Re-use, repair and recycling of existing material

4.1.52 A pre-demolition audit was undertaken during RIBA Stage 2 (Concept Design) of the previous scheme, which identified potential materials and equipment that can be reused or recycled. This will help to guide the design to consider using the materials identified and to help waste contractors set targets to maximise reuse and recycling opportunities.

Site waste management

4.1.53 A Site Waste Management Plan (SWMP) will be developed by the Contractor prior to the commencement of the Proposed Development on the site. This will outline the key objectives to achieve efficient use of material resources and to reduce the amount of waste produced due to the construction activities, and will be based on the guiding principles of sustainable resource and waste management: the waste hierarchy and the circular economy. The waste hierarchy and the circular economy aim to reduce the quantity of waste generated while trying to maximise the efficient use of material resources.

4.1.54 In accordance with these principles, and in response to the relevant regulatory, policy and guidance context, the SWMP will set out a number of materials and waste management targets, as shown in Table 2 below.

Table 2. Site waste management targets.

Management type	Target
Resource efficiency	≤7.5 m ³ waste per 100m ² (GIA) or ≤ 6.5 tonnes waste per 100m ² (GIA).
Diversion from landfill	95% of construction, demolition and excavation waste.

Operational waste

- 4.1.55 In addition to the above measures set out for site waste management, encouraging the recycling of waste during the operation of the building has been considered and an appropriate, accessible space for the segregation, storage and collection of recyclables has been included in the design. This is intended to support with meeting local targets for reductions in waste volumes sent to landfill.

Circular economy

- 4.1.56 Waste and Resources Action Programme (WRAP) UK defines the circular economy as follows:
- 4.1.57 "A circular economy is an alternative to a traditional linear economy (make, use, dispose) in which we keep resources in use for as long as possible, extract the maximum value from them whilst in use, then recover and regenerate products and materials at the end of each service life."
- 4.1.58 During RIBA Stage 2 (Concept Design) of the previously consented scheme, a design team workshop was held to investigate opportunities to embed measures to improve the ease of disassembly and functional adaptability of the building and its constituent materials. This was undertaken to align with the BREEAM issue Wst 06 Design for Disassembly and Adaptability, which seeks to embed circular economy principles.
- 4.1.59 The key considerations raised by the design team include:
- Building grid suits a variety of uses; workshop space could be changed to suit other uses or curriculum requirements and teaching spaces could become office space.
 - Access into rear service yard for vehicles and large space to unload and access the building for large plant replacement.
 - Exposed service runs to allow easy access for maintenance and multiple riser locations for services reconfiguration.
 - There is space to the west to extend the main workshop space and space to the east to expand classrooms and admin facilities for future flexibility.
 - Exposed steel frame, educational for the college occupants and also allows for easy disassembly.
 - Cladding fixing systems, exposed concrete ceilings/soffits and studwork internal partitions allow for easy disassembly and reuse.
 - Standardisation of designs including; cladding panels, windows, doors and side screens to rooms, repeated toilet layouts.
- 4.1.60 These considerations for the previously consented scheme have been reviewed and remain valid for the proposed development.
- 4.1.61 In addition to the above, the modular design and construction of the Proposed Development will help to reduce waste. Off-site construction generates up to 90% less waste than traditional on-site building methods. The factory-controlled process

also minimises the amount of energy necessary to create a building. This will help reduce waste and support the circular economy; contributing towards the London Plan target of 95% reuse/recycling/recovery of construction and demolition waste.

The modular units have a design life of 60 years and, depending on their end-of-life condition, they may be sold back to the manufacturer to be refurbished and reused as hire modules or recycled where practicable. The steel frame will be recycled.

Nature conservation and biodiversity

London Plan 2021	<ul style="list-style-type: none"> • Policy D8 Public realm • Policy G1 Green infrastructure • Policy G5 Urban greening • Policy G6 Biodiversity and access to nature • Policy G7 Trees and woodlands • Policy G9 Geodiversity
Camden Local Plan 2017	<ul style="list-style-type: none"> • Policy A3 Biodiversity
Camden Planning Guidance	<ul style="list-style-type: none"> • Biodiversity CPG March 2018 • Trees CPG March 2019

4.1.62 An ecological assessment was carried on the site by ASW Ecology in December 2018 (ref: ASW/MELS/093/22/2018), and a subsequent bat emergence visit made. The key findings were that the site has low ecological value with the scope for protected species being present on site being low. As this was undertaken recently, it is considered applicable as a reference for the current application.

4.1.63 The Proposed Development will aim to enhance the ecological value of the site. A number of ecological enhancements have been identified, including:

- **Improved pond in the Ecology Area** – existing pond to be desilted and relined, with a varied profile to the edges. Marginal aquatic planting to be incorporated, together with floating plants; and
- **Bird boxes** – both Garden Bird boxes (32mm hole) and Open-Fronted Birdboxes; bird boxes to be wall-integrated and/or fixed to proposed semimature trees (minimum 10 No. - to be confirmed with the ecologist); and
- **Bat boxes** – to be located where appropriate, typically as wall-integrated boxes and/or to proposed semi-mature trees (minimum 10 No. - to be confirmed with the ecologist); and
- **Lacewing/Mason Bee/Invertebrate Boxes** – a range of suitable habitats to encourage nesting of invertebrates fixed to mature trees; and
- **Herbaceous Perennials** – the planting proposals will include a range of wildlife-friendly herbaceous species, and natives where appropriate; and
- **'Tapestry' Hedges** – containing a range of native shrubs; and
- **Native and flower-rich perennials** – incorporated into the planting proposals, to attract butterflies, birds and other wildlife and to provide sources of nectar. We are aiming to provide at least 50% native species or non-native species with a known benefit to wildlife.

Details of the landscape management and maintenance activities that will be implemented to ensure the successful integration of the Proposed Development into the wider landscape to enhance the longer term nature conservation interests of the ecology are set out in the Landscape Report (1CP01-MDS_FBM-LS-REP-SS08_SL23-000001).

Health and wellbeing

London Plan 2021	<ul style="list-style-type: none"> • Policy GG3 Creating a healthy city • Policy S2 Health and social care facilities
Camden Local Plan 2017	<ul style="list-style-type: none"> • Policy C1 Health and wellbeing
Camden Planning Guidance	<ul style="list-style-type: none"> • Planning for health and wellbeing CPG January 2021

- 4.1.64 Recognising the importance of promoting the health, wellbeing and safety of the building users during its lifecycle, the Proposed Development is targeting key BREEAM credits that aim to embed measures to encourage positive outcomes through design, construction and operation.
- 4.1.65 The building will provide occupants with an environment that facilitates good visual comfort by designing out the potential for glare and providing appropriate illuminance levels and control.
- 4.1.66 Good indoor air quality will be facilitated in design by considering indoor air pollution early in the design process so that a mitigation strategy can be put in place. This includes the production of a project-specific Indoor Air Quality (IAQ) plan to influence building design, specification of products and installation of ventilation systems that will minimise indoor air pollution. The IAQ plan will be prepared by the Contractor prior to the commencement of the Proposed Development on site.
- 4.1.67 In addition, a programme of post-construction, pre-occupation indoor air quality testing will be undertaken to verify compliance with the IAQ plan.
- 4.1.68 Thermal comfort modelling will also be carried out to inform the building design to provide a comfortable thermal environment which gives occupants control over their environment through appropriate temperature control strategies and thermal zoning.
- 4.1.69 The Proposed Development will meet appropriate acoustic performance standards and testing requirements to ensure that the building is capable of providing comfort for building users by minimising disturbances, thereby enhancing productivity.
- 4.1.70 Consideration will also be given to providing safe and healthy surroundings, by taking into account site-specific security needs, designing in safe access for pedestrians and cyclists and creating accessible external amenity space for occupants.

4.2 Climate Change Adaptation

Tackling increased temperature and drought

London Plan 2021	<ul style="list-style-type: none"> • Policy SI4 Managing heat risk
Camden Local Plan 2017	<ul style="list-style-type: none"> • Policy CC1 Climate change mitigation • Policy CC2 Adapting to climate change
Camden Planning Guidance	<ul style="list-style-type: none"> • Energy efficiency and adaptation CPG Jan 2021

Climate change

- 4.2.1 The project is targeting the BREEAM issue Wst 05 Adaptation to climate change. To demonstrate compliance with this issue, a climate change adaptation strategy appraisal was completed during RIBA Stage 2 (Concept Design) for structural and fabric resilience. This appraisal identified impacts of extreme weather conditions arising from climate change on the building during its projected life cycle, and proposed recommendations to mitigate these impacts.
- 4.2.2 It should be noted that due to wider masterplanning considerations for the Euston redevelopment and HS2 works, the Proposed Development is being designed for much shorter lifetime than industry standard. It is expected that the scheme will be in existence for no more than 10-15 years as part of a meanwhile use of the site.
- 4.2.3 The potential hazards from climate change that were identified over the projected building lifespan include increased solar radiation and an increased variability of seasonal rainfall. A number of measures have been identified and incorporated in the design to mitigate against these:
- Increased solar radiation:
 - Glazing areas of 30% of the floor area on South-facing walls, with areas of 40% on West/East/North-facing walls.
 - Solar control glazing with a G value of 0.4 is proposed on the East, West and South façades to avoid summer overheating and reduce cooling demand.
 - Mechanical Ventilation with Heat Recovery system (MVHR)
 - Increased variability of seasonal rainfall:
 - Surface water attenuation is to be provided on site with capacity for up to the 1 in 100-year storm event plus a 40% allowance for climate change.
 - Installation of low flow fittings and a water efficient strategy for the planting strategy.
 - Incorporation of SuDS, such as permeable paving, to slow the rainfall run-off from the site and hold the water in periods of intense rainfall.
 - Native species selection to reduce water demand from irrigation.

Overheating

- 4.2.4 The cooling hierarchy set out under London Plan Policy SI4 has been applied to the Proposed Development to reduce the demand for cooling and minimise the risk of overheating. This includes measures such as:
- Minimise internal heat generation through energy efficient design:
 - Lighting will be high-efficiency LED with low levels of ambient lighting supplemented by task lighting, and controls linked to daylight levels and occupancy.
 - Heating is via VRF so small diameter pipework with good insulation and no heat generation in cooling season.
 - Reduce the amount of heat entering the building in summer:
 - The building is well-orientated with its long elevations facing due north and south.
 - Limiting glazing areas and use of solar control glazing
 - Building fabric is well insulated for a modular build, targeting a wall U value of 0.2W/m².K and roof U value of 0.18W/m².K, which helps minimise heat gains through conduction.
- 4.2.5 Overheating analysis has been completed in accordance with CIBSE TM52 for all of the mechanically cooled spaces in the Proposed Development. This is based on a 2020s predicted weather file for London. By complying with the requirements of TM52 it is verified that the proposed cooling strategy provides a comfortable internal environment for the occupants.
- 4.2.6 The outcome of the analysis confirms that all spaces within the building are compliant. Refer to the Energy Statement(1CP01-MDS_MFL-PL-REP-SS08_SL22-000002-REV_1)for further details.

Increasing green cover

London Plan 2021	<ul style="list-style-type: none"> • Policy SI4 Managing heat risk • Policy G1 Green infrastructure • Policy G5 Urban greening • Policy G6 Biodiversity and access to nature
Camden Local Plan 2017	<ul style="list-style-type: none"> • Policy A2 Open space • Policy A3 Biodiversity
Camden Planning Guidance	<ul style="list-style-type: none"> • Public open space CPG January 2021

- 4.2.7 The Proposed Development includes a number of landscaping proposals within the site, and also benefits from access to open space beyond the application site boundary.
- 4.2.8 At the north-west of the Proposed Development there will be an Ecology Area, which comprises of an expanded area incorporating extensive native planting and a relined and reprofiled wildlife pond.
- 4.2.9 The planting strategy for this area is to include native species that enhance the existing surrounding landscape, with a range of different habitats, including:
- Marginal and aquatic plants associated with the reprovided pond;
 - Native shrub and groundcover plants;
 - A 'Tapestry' hedge with a range of native shrub species to provide nectar rich flowers and berries, complementing the native species found in the area.
- 4.2.10 In addition, the Proposed Development will incorporate climbing plants to the CSC southern façade. This will include a range of evergreen and deciduous climbers to be grown in metal planters attached to the southern facade. The planters are to have an automatic irrigation system together with suitable soil volume to support plant growth. The selected species are typically self-twining, and will clamber across the wire netting.

Urban Greening Factor (UGF)

- 4.2.11 Although the UGF is currently only applied to major applications, a preliminary calculation has been undertaken to determine what the UGF is for the site, in reference to the London Plan Policy G5 interim target of 0.3 for predominantly commercial developments.
- 4.2.12 The Proposed Development is currently achieving an UGF of 0.2. Given its small footprint and temporary nature, this highlights that urban greening measures have been considered throughout the design process to deliver benefits for biodiversity, amenity and sustainable drainage.

Flooding and rainwater management

London Plan 2021	<ul style="list-style-type: none">• Policy SI 5 Water infrastructure• Policy SI12 Flood risk management• Policy SI13 Sustainable drainage
Camden Local Plan 2017	<ul style="list-style-type: none">• Policy CC3 Water and flooding
Camden Planning Guidance	<ul style="list-style-type: none">• Water and flooding CPG March 2019

- 4.2.13 A Flood Risk Assessment (FRA) (1CP01-MDS_ ARP-EV-REP-SS08_SL23-990007) has been undertaken in accordance with the NPPF and the associated National Planning Practice Guidance (NPPG).
- 4.2.14 A standalone FRA has been prepared and submitted with the planning application and should be read alongside this statement. The FRA presents an assessment of flood risk from all sources as a result of the Proposed Development, and details of the proposed drainage strategy.
- 4.2.15 The following sources of flood risk have been assessed in line with NPPF guidance:
- Fluvial sources (river flooding);
 - Tidal sources (flooding from the sea);
 - Surface water/combined sewer;
 - Groundwater sources; and
 - Water infrastructure failure, including reservoirs, canals, blocked sewers and burst water mains.
- 4.2.16 The FRA confirms that all potential fluvial and tidal risks are assessed as negligible as the site is entirely within Flood Zone 1 (less than a 1 in 1,000 annual probability of river or sea flooding).
- 4.2.17 Chapter 5 of the FRA indicates that the proposed drainage arrangement for the site (existing site is brownfield) will provide in excess of a 95% betterment. As rates are being restricted to a little over the QBAR greenfield runoff rate for the site (1.0l/s) for all events up to the 1 in 100yr plus climate change (40%) the volume of runoff is not increasing. The overall impermeable area on the proposed site is not increasing relative to the existing site.
- 4.2.18 Groundwater was identified a possible flood risk. No basements are proposed within the development; however, a high groundwater level may impact upon subsurface structures such as any potential cellular storage tanks used for surface water attenuation. Using lined and/or weighted tanks is outlined as a suitable mitigation measure to reduce the risk of flood from groundwater.

- 4.2.19 Based on the available information the site is considered to be at a low risk of sewer flooding, with the proposed site drainage strategy providing a net betterment over the existing situation.
- 4.2.20 In addition, all water infrastructure failure sources of flood risk were considered to pose a low to minimal risk to the site.

4.3 Pollution Management

Land contamination

London Plan 2021	<ul style="list-style-type: none">• Policy SD1 Opportunity areas• Policy SI13 Sustainable drainage
Camden Local Plan 2017	<ul style="list-style-type: none">• Policy A1 Managing the impact of development

- 4.3.1 A Site Contamination Report (1CP01-MDS_ ARP-EV-REP-SS08_SL23-990006) has been prepared to support the planning application for the Proposed Development to demonstrate that safe development can be achieved in accordance with the NPPF.
- 4.3.2 This report presents the findings of ground investigation that has already been completed at the site and uses data obtained to inform the contamination risk assessment.
- 4.3.3 A review of the available environmental data including the site history, setting and sensitivity of the site identified potential onsite and offsite sources of contamination including burial grounds, tanks, garages and printing works. The environmental sensitivity of the site is considered to be low.
- 4.3.4 The results from the ground investigation undertaken do not indicate the presence of significant widespread contamination at the site.
- 4.3.5 The Proposed Development is low sensitivity considering its proposed construction with limited in ground works (piling and base slab construction) and (temporary) end use.
- 4.3.6 Plausible contaminant linkages have been identified between potential onsite contamination and human health receptors during construction and operation of the Proposed Development and building services and materials. Risk assessment has determined that risks to human health are moderate to low during construction and very low during operation. In general, good construction practices (e.g. health and safety, environmental controls) will mitigate the risks identified.
- 4.3.7 No further ground investigation is considered to be required to further refine the risk assessment and recommendations included in this report as there is considered to be sufficient existing data available in the context of the proposed construction (and associated controls) and end-use, site setting and potential for contamination.
- 4.3.8 No specific remediation (e.g. source removal) is warranted. The 'remediation strategy' consists of standard brownfield development measures including:
- the implementation of the enhanced health and safety measures including those within the HS2 Code of Construction Practice;
 - the implementation of a watching brief during below ground works for the presence of contamination, including hydrocarbons and asbestos; and,

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- additional enhanced health and safety measures relating to asbestos.

- 4.3.9 A verification report should be prepared to document the works undertaken to address the specific control and mitigation measures outlined in this report and include pertinent 'land quality' information to document the works as part of the health and safety file and/or contractual close out document.
- 4.3.10 The project is also targeting seven credits under BREEAM 2018 issue Man 03 'Responsible construction practices' which encourages construction sites to be managed in an environmentally and socially considerate, responsible and accountable manner.
- 4.3.11 Achieving Man 03 also requires all parties who manage the construction site to implement best practice pollution prevention policies and procedures on site in accordance with Working at construction and demolition sites: PPG6, Pollution Prevention Guidelines.

Air pollution

London Plan 2021	<ul style="list-style-type: none"> Policy GG3 Creating a healthy city Policy SI1 Improving air quality
Camden Local Plan 2017	<ul style="list-style-type: none"> Policy CC4 Air quality
Camden Planning Guidance	<ul style="list-style-type: none"> Air Quality CPG Jan 2021

- 4.3.12 London Plan Policy SI 1 ‘Improving Air Quality’ recognises the importance to the Mayor of tackling air pollution in order to improve air quality, health and well-being. Among the requirements was the criterion in relation to planning decisions, that a major development be at least ‘air quality neutral’ and not lead to further deterioration of existing poor air quality. ‘Air quality neutral’ was defined in the Mayor’s Sustainable Design and Construction, Supplementary Planning Guidance.
- 4.3.13 In response to this, an Air Quality Assessment Report (1CP01-MDS_ ARP-EV-REP-SS08_SL23-990010) has been prepared for the Proposed Development and should be read alongside this statement.
- 4.3.14 The assessment investigates baseline conditions, potential dust impacts during construction, air quality impacts from construction and operational traffic, and odours from on-site catering.
- 4.3.15 The construction dust assessment found a low dust risk overall without mitigation. As such, detailed mitigation measures have been recommended and are outlined in the Air Quality Assessment Report.
- 4.3.16 The assessment of construction and operational road traffic emissions found negligible impacts at all receptors assessed. Therefore, no additional mitigation measures have been proposed.
- 4.3.17 The air quality neutral assessment found that building and transport emissions meet the requirements for air quality neutrality in accordance with London Plan Policy SI 1. A key contributing factor to this is the use of all-electric plant, meaning that it meets the air quality neutral benchmarks from a building emissions perspective. Therefore, no additional mitigation measures have been proposed.
- 4.3.18 However, for some of the new receptors introduced by the Proposed Development, annual mean nitrogen dioxide (NO₂) concentrations are predicted to be higher than the air quality objective (AQO) at the western and parts of the northern and southern facades of the Construction Skills Centre at ground floor level and the western façade at first floor level. The mechanical engineers for the Proposed Development have confirmed that the building will be mechanically ventilated, with air drawn in from the roof (circa 22m above ground level), which is expected to meet air quality objectives. Therefore, no additional mitigation measures have been proposed.

- 4.3.19 The odour risk assessment identified a high impact risk. An odour control system in the kitchen flue has been recommended to mitigate the risk in accordance with withdrawn Defra guidance. Refer to Air Quality Assessment Report (1CP01-MDS_ARP-EV-REP-SS08_SL23-990010) for further detail.
- 4.3.20 The Air Quality Assessment Report concludes that, overall, air quality is not a barrier to the Proposed Development. The measures described above will also contribute to the project achieving maximum credits under BREEAM issue Pol 02 'Local air quality'.

Noise pollution

London Plan 2021	<ul style="list-style-type: none"> • Policy D14 Noise
Camden Local Plan 2017	<ul style="list-style-type: none"> • Policy A1 Managing the impact of development • Policy A4 Noise and vibration

- 4.3.21 An acoustic assessment (1CP01-MDS_ ARP-EV-REP-SS08_SL23-990008) has been undertaken in support of the planning application for the Proposed Development. This assessment identified a number of noise-sensitive receptors near the site, including the St Margarete health centre (108 Hampstead Road) and 106 Hampstead Road to the north-east of the Proposed Development, the Exmouth Arms to the south-east of the Proposed Development and the residential receptors on Starcross Street and North Gower Street to the south of the Proposed Development.
- 4.3.22 Noise and vibration from the construction of the Proposed Development will be controlled through adherence to the requirements of the LBC regarding hours of work and obtaining consent for specific activities through Section 61 applications, along with implementing suitable mitigation measures, as appropriate, following the guidance presented in BS5228 Part I: 2009+A1:2014 *Code of practice for noise and vibration control on construction and open sites – Part 1 Noise*.
- 4.3.23 Mitigation measures will be considered and implemented, where appropriate, based on the guidance presented in BS5228. Measures that will be implemented include, but are not limited to:
- The use of augured/CFA piling, with excess material cleaned through means other than spinning the piling rig
 - Use of hydraulic crushers to minimise percussive breaking
 - Installation of solid barriers around the site
 - Minimising the reversing of vehicles through careful planning of vehicle routes around the site
 - Minimising the use of generators by making use of permanent power
 - Limiting construction works to 08:00 to 18:00 as far as reasonably practicable
- 4.3.24 Noise emission limits for building services noise from the Proposed Development have been set at 10dB below the existing background noise level. These limits apply to all noise from all items of building services plant associated with the Proposed Development when rated in accordance with BS4142:2014 *Methods for rating and assessing industrial and commercial sound*.
- 4.3.25 Noise emissions will be mitigated through:
- Selection of quiet plant
 - Attenuators for ducted plant
 - Solid continuous plant screens at roof level to provide a noise barrier

- Location and orientation of ducts away from noise sensitive receptors where possible
- Limiting the operating hours of noisier plant items (eg kitchen extract) to daytime hours as far as practicable
- Noise emissions from the Proposed Development will be designed to avoid distracting or attention-catching qualities such as tonality or impulsivity.

4.3.26 Noise from activities within the CSC are not expected to be noticeable at the nearest noise-sensitive receptors to the Proposed Development.

4.3.27 In addition to complying with planning policy, legislation and guidance, this will contribute to the Proposed Development achieving one credit under BREEAM issue Pol 05 'Reduction of noise pollution'.

Light pollution

London Plan 2021	<ul style="list-style-type: none">• Policy D8 Public realm
Camden Local Plan 2017	<ul style="list-style-type: none">• Policy A1 Managing the impact of development

- 4.3.28 Light pollution, or 'obtrusive lighting', is to be minimised. The design will be in accordance with best practice guidance such as ILP GN01:2020 Guidance Notes for the Reduction of Obtrusive Light. The design will provide a good balance of upward flux, luminous intensity, and building facade luminance, within the guidance threshold.
- 4.3.29 All external lighting (except those for safety and security) will be automatically switched off between 23:00 and 07:00. Those lights that will stay switched on for safety and security reasons, will follow the lower levels of lighting recommended during the hours stated in the ILP Guidance Notes.

Water pollution

London Plan 2021	<ul style="list-style-type: none"> • Policy SI5 Water infrastructure • Policy SI13 Sustainable drainage
Camden Local Plan 2017	<ul style="list-style-type: none"> • Policy A1 Managing the impact of development • Policy CC3 Water and flooding
Camden Planning Guidance	<ul style="list-style-type: none"> • Water and flooding CPG March 2019

- 4.3.30 In accordance with the NPPF, London Plan, Camden Planning Guidance, and Camden Local Plan, the Proposed Development is to incorporate SuDS features where possible in order to provide source control, attenuation, and treatment of surface water on-site.
- 4.3.31 The SuDS strategy for the proposed development has been derived using the principles outlined within the CIRIA C753 SuDS Design Manual along with BS 8582:2013 – Code of Practice for Surface Water management for Development Sites.
- 4.3.32 The majority of the site is made up of non-trafficked areas including pedestrian walkways and the building roof, with only a small area in the west of the site likely to be infrequently trafficked for deliveries.
- 4.3.33 Non-trafficked areas within the site will require minimal levels of surface water pre-treatment prior to discharge. This will be provided in the form of catchpit manholes throughout the site subject to an appropriate maintenance regime which would include the clearing of sediment from manholes, and additional upstream SuDS including permeable paving. This will also provide an additional element of surface water pre-treatment to the water that passes through them.
- 4.3.34 As the open area in the west of the site is likely to be infrequently trafficked by delivery vehicles, an additional treatment stage in conjunction with catchpit manholes will likely be required. Where possible, runoff from this area is recommended to pass through an additional SuDS device such as a filter drain or local bioretention area.
- 4.3.35 Refer to the FRA (1CP01-MDS_ARP-EV-REP-SS08_SL23-990007) for full details.

5 BREEAM

5.1 Scheme Overview

- 5.1.1 BREEAM (Building Research Establishment’s Environmental Assessment Method) is the leading environmental assessment method for UK non-residential buildings and UK domestic refurbishments. It sets the standard for best practice design and encourages and certifies that best environmental practice is incorporated within the building design and construction.
- 5.1.2 BREEAM UK New Construction consists of individual assessment issues across nine environmental categories, plus one ‘innovation category’, each of which addresses a specific building-related environmental impact or issue. The categories include: Management; Health and Wellbeing; Energy; Transport; Water; Materials; Waste; Land Use and Ecology; Pollution; and Innovation.
- 5.1.3 The BREEAM certificate provides formal verification that an assessment of the building has been completed in accordance with the requirements of the scheme and its quality standards and procedures. A BREEAM certificate verifies that a building’s BREEAM rating, at the time of certification, accurately reflected its performance against the BREEAM standards. The rating benchmarks are provided in Table 3.

Table 3. BREEAM Rating Benchmarks.

BREEAM Rating	% score
Outstanding	≥ 85
Excellent	≥ 70
Very Good	≥ 55
Good	≥ 45
Pass	≥ 30
Unclassified	< 30

- 5.1.4 As the Proposed Development is a new, non-domestic development, it will be assessed under the BREEAM UK New Construction 2018 scheme. It is also classified as a ‘fully fitted’ building.

5.2 Pre-Assessment Summary

Targets

- 5.2.1 As per Policy CC2 Adapting to climate change, a BREEAM assessment is required for non-domestic developments of 500m² of floorspace or above. The policy also requires an ‘Excellent’ rating (i.e. at least 70% of available credits) for these

developments, however a derogation has been confirmed by LBC, which allows the scheme to satisfy the policy by achieving a 'Very Good' rating. This derogation was discussed and agreed during pre-application meetings. Refer to the Planning Statement (1CP01-MDS_ ARP-TP-REP-SS08_SL23-990005) for further details of which meetings this was discussed at.

5.2.2 LBC also accepted that a less than 40% target in Materials category was also acceptable due to the temporary nature of the scheme, however minimum thresholds still apply in the following categories:

- Energy 60%
- Water 60%

5.2.3 This derogation has been agreed as the scheme is being designed for much shorter lifetime than industry standard due to wider masterplanning considerations for the Euston redevelopment and HS2 works. It is expected that the scheme will be in use for no more than 10-15 years as part of a Meanwhile use of the site.

5.2.4 In addition, following consultation with the Building Research Establishment (BRE), it was agreed that it is acceptable for the building to proceed with the BREEAM assessment using the 'Office' building typology, irrespective of the fact the building is mixed-use (commercial office space and education space) which would typically require a Bespoke application.

5.2.5 The project has been registered with the BRE and has the reference number BREEAM-0089-8197.

Performance

5.2.6 The current target score for the Proposed Development is 66.14%, exceeding the threshold for a Very Good rating. It is strongly recommended that a buffer of at least 5% (i.e. minimum of 60%) should be maintained and secured during the remaining design stages and throughout construction to ensure the rating is achieved. The project team will endeavour to target additional credits where possible to further improve this buffer. A full credit checklist is provided in Appendix A.

Table 4. Summary of targeted credits for the Proposed Development.

Category	Available	Weighting	Targeted
Management	21	11%	20
Health & Wellbeing	18	14%	12
Energy	23	16%	14
Transport	12	10%	10
Water	9	7%	6

Materials	14	15%	3
Waste	11	6%	9
Land Use & Ecology	13	13%	9
Pollution	12	8%	9
Exemplary/Innovation	10	10%	1
Total:	143		92 66.14 %

5.2.7 Although the target score for the building exceeds the threshold for Very Good, there are a number of mandatory and minimum performance requirements in BREEAM that also need to be satisfied in order to achieve this rating. These are summarised in

5.2.8 Table 5.

5.2.9 Currently all of the below mandatory requirements are incorporated into the target BREEAM score for the Proposed Development and will be addressed and documented during the RIBA Stages 3-6.

Table 5. Mandatory and minimum requirements for a BREEAM Very Good rating.

Issue	RIBA Stage	Requirement
Man 03 Responsible construction practices	4 & 5	Criterion 1 only (100% legal and sustainable timber)
Man 04 Commissioning and handover	5 & 6	One credit (Commissioning-test schedule and responsibilities)
Man 04 Commissioning and handover	5 & 6	Criterion 11 (Building User Guide)
Ene 02 Energy monitoring	3 & 4	One credit (First sub-metering credit)
Wat 01 Water consumption	3 & 4	One credit (12.5% improvement over baseline building water consumption)
Wat 02 Water monitoring	3 & 4	Criterion 1 only (Specify a water meter on the mains water supply)
Mat 03 Responsible sourcing of materials	4 & 5	Criterion 1 only (100% legal and sustainable timber)

5.2.10 As part of LBC’s planning requirements, the Proposed Development is required to achieve minimum levels of performance in the Energy and Water categories. The projected scores in each of these sections are highlighted in Table 6.

Table 6. Maria Fidelis – BREEAM Energy and Water categories performance.

Credit	Available	Target
Ene 01	13 credits	5 credits
Ene 02	2 credits	2 credits
Ene 03	1 credits	1 credit
Ene 04	3 credits	2 credits
Ene 06	2 credits	2 credits
Ene 08	2 credits	2 credits
Energy total	23 credits	14 credits (60.87%)
Wat 01	5 credits	3 credits
Wat 02	1 credit	1 credit
Wat 03	2 credits	2 credits
Wat 04	1 credit	0 credits
Water total	9 credits	6 credits (66.66%)

Summary

- 5.2.11 Based on the current design proposal, and the opportunities that are still available, the project is deemed to be able to achieve a BREEAM Very Good rating (≥55%). It is recommended that the client and design team retain the design elements that enable the project to achieve a score of 60% or above.
- 5.2.12 The design team must review the impact of any design changes against the targeted BREEAM credits and ensure that the buffer score is maintained to manage risk.

6 Conclusion

- 6.1.1 This report has provided a summary of the Proposed Development's alignment with local planning requirements including the London Plan (2021), Mayor of London's Supplementary Planning Guidance (SPG), the Camden Local Plan and Camden Planning Guidance.
- 6.1.2 The Proposed Development has high sustainability aspirations, as demonstrated by the measures described and the target rating of BREEAM 'Very Good' (which puts the building in the top 25% of new buildings in terms of sustainability performance, as described by the BRE).
- 6.1.3 The key sustainability measures include:
- Modular design allows the building to retain flexibility in its configuration to meet any changing needs throughout its life cycle; providing the potential to reduce costs, disruption and waste associated with the need for future adaptation.
 - Package of sustainable and active transport measures to be implemented, including cycle parking spaces in accordance with the London Plan.
 - Energy strategy that delivers a 46% reduction in CO2 emissions (SAP10 carbon factors) against building regulations, including an annual cash contribution to offset the residual carbon and achieve net zero carbon.
 - Water efficiency measures to achieve a 40% improvement over baseline building water consumption.
 - Site waste management practices to meet best practice benchmarks for resource efficiency and diversion from landfill.
 - Creation of a new Ecology Area that incorporated new native habitats to enhance the local ecological value.
 - Building design and specification measures have been incorporated that create a healthy, safe and comfortable internal and external environment.
 - Measures implemented in the design to mitigate the impact of more variable and extreme weather conditions arising over the lifespan of the building.
 - Proposed drainage will provide in excess of a 90% betterment, with run-off rates restricted to a little over the QBAR greenfield runoff rate for the site (1.0l/s) for all events up to the 1 in 100yr plus climate change (40%).
 - Implementation of measures during construction to ensure the site is managed in an environmentally and socially considerate, responsible and accountable manner.
 - All-electric plant to contribute to the Proposed Development meeting the requirements for air quality neutrality in accordance with London Plan Policy SI 1.
 - Noise emission limits to meet planning policy, legislation and best practice guidance.
 - SuDS features to be incorporated where possible to provide source control, attenuation, and treatment of surface water on-site.

Appendix A – BREEAM NC 2018 Checklist

Issue	Credit	Available	Target
Management			
Man 01 Project Brief and Design	Project delivery planning	1	1
	Stakeholder consultation (interested parties)	1	1
	BREEAM AP (concept design)	1	0
	BREEAM AP (developed design)	1	1
Man 02 Life Cycle Cost and Service Planning	Elemental life cycle cost (LCC)	2	1
	Component level LCC options appraisal	1	1
	Capital cost reporting	1	1
Man 03 Responsible Construction Practices	Pre-requisite - Legally harvested and traded timber	-	YES
	Environmental management	1	1
	BREEAM AP (site)	1	1
	Responsible construction management	2	2
	Monitoring of construction site impacts	2	2
Man 04 Commissioning and Handover	Commissioning - testing schedule and responsibilities	1	1
	Commissioning - design and preparation	1	1
	Testing and inspecting building fabric	1	1
	Handover	1	1
Man 05 Aftercare	Aftercare support	1	1
	Commissioning - implementation	1	1
	Post occupancy evaluation (POE)	1	1
		21	19
Health and Wellbeing			
Hea 01 Visual Comfort	Control of glare from sunlight	1	1
	View out	1	0
	Internal and external lighting levels, zoning and controls	1	1

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Hea 02 Indoor Air Quality	Pre-requisite - Indoor air quality (IAQ) plan	-	YES
	Ventilation	1	1
	Emissions from construction products	2	1
	Post-construction indoor air quality measurement	1	1
Hea 04 Thermal Comfort	Thermal modelling	1	1
	Thermal zoning and controls	1	1
Hea 05 Acoustic Performance	Sound insulation	1	0
	Indoor ambient noise levels	1	1
	Room acoustics	1	1
Hea 06 Security	Security of site and building	1	1
Hea 07 Safe and Healthy Surroundings	Safe access	1	1
	Outside space	1	1
		18	12
Energy			
Ene 01 Reduction of Energy Use and Carbon Emissions	Energy performance	9	5
Ene 02 Energy monitoring	Sub-metering of end use categories	1	1
	Sub-metering of high energy load and tenancy areas	1	1
Ene 03 External Lighting	External lighting	1	1
Ene 04 Low Carbon Design	Passive design analysis	1	1
	Low zero carbon (LZC) technologies	1	1
Ene 06 Energy Efficient Transportation Systems	Energy consumption	1	1
	Energy efficient features	1	1
Ene 08 Energy Efficient Equipment	Energy efficient equipment	2	2
		23	14
Transport			

Tra 01 Transport Assessment and Travel Plan	Transport assessment and travel plan	2	2
Tra 02 Sustainable Transport Measures	Transport options implementation	10	7
		12	10
Water			
Wat 01 Water Consumption	Water consumption	5.00	3
Wat 02 Water Monitoring	Water monitoring	1	1
Wat 03 Water Leak Detection	Leak detection system	1	1
	Flow control devices	1	1
Wat 04 Water efficient equipment	Water efficient equipment	1	0
		9.00	6
Materials			
Mat 03 Responsible sourcing of materials	Pre-requisite	-	YES
	Enabling sustainable procurement	1	1
	Measuring responsible sourcing	3	1
Mat 05 Designing for Durability and Resilience	Protecting vulnerable parts of the building from damage / material degradation	1	1
Mat 06 Material Efficiency	Material efficiency	1	0
		14	3
Waste			
Wst 01 Construction Waste Management	Pre-demolition audit	1	1
	Construction resource efficiency	3	2
	Diversion of resources from landfill	1	1
Wst 03 Operational Waste	Operational waste	1	1
Wst 04 Speculative finishes (Offices only)	Speculative floor and ceiling finishes	1	1

Wst 05 Adaptation to Climate Change	Resilience of structure, fabric, building services and renewables installation	1	1
Wst 06 Design for Disassembly and Adaptability	Design for disassembly and functional adaptability – recommendations	1	1
	Design for disassembly and functional adaptability – implementation	1	1
		11	9
Land Use and Ecology			
LE 01 Site Selection	Previously occupied land	1	1
LE 02 Identifying and Understanding the Risks and Opportunities for the Site	Survey and evaluation - determining the site-wide outcome (Comprehensive Route)	2	2
LE 03 Managing Negative Impacts on Ecology	Planning, liaison and implementation (Comprehensive Route)	1	1
	Managing negative impacts of the project (Comprehensive Route)	2	1
LE 04 Change and Enhancement of Ecological Value	Change and enhancement of ecology (Comprehensive Route)	4	2
LE 05 Long Term Management and Maintenance	Planning, liaison, data, monitoring and review management and maintenance / Landscape and ecology management plan	2	2
		13	9
Pollution			
Pol 01 Impact of Refrigerants	Impact of refrigerants	2	1
Pol 02 Local Air Quality	Local air quality	2	2
Pol 03 Flood and Surface Water Management	Low flood risk	2	2
	Surface water runoff	2	2
Pol 04	Reduction of night time light pollution	1	1
Pol 05	Reduction of noise pollution	1	1

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		12	9
Innovation			
Man 03 Exemplary	Responsible Construction Management	1	1
		1	1
TOTAL			
No. Targeted			92
% Targeted			66.14 %

Appendix B – Camden Sustainability and Energy Proforma

Major new non-residential development (or substantial refurbishment) L2A

All relevant yellow boxes must be completed

Complete orange cells with source document and section/page references, required to support/justify responses

See guidelines / notes in column M

Details of new non-residential proposals:

Name of applicable buildings / blocks / units	MARIA FIDELIS SITE ACCOMMODATION & CONSTRUCTION SKILLS CENTRE
Floor area (GIA)	7125m ²

Recommendation
(Council to complete)

Energy Statement

1. Carbon Reduction (Camden Local Plan Policy CC1)

a. Energy Statement	SAP2012		
	Total tCO ₂	Stage reduction, tCO ₂	Stage reduction, %
Baseline	222.20	N/A	N/A
Be Lean	219.80	2.40	1.1%
Be Clean	219.80	0.00	0.0%
Be Green	211.20	8.60	3.9%
TOTAL	211.20	11.00	5.0%
Target	0.00	222.20	100.0%
Shortfall	211.20	211.20	95.0%
Offset payment	£601,920		

b. Energy Statement	SAP10		
	Total tCO ₂	Stage reduction, tCO ₂	Stage reduction, %
Baseline	175.90	N/A	N/A
Be Lean	175.10	0.80	0.5%
Be Clean	175.10	0.00	0.0%
Be Green	94.80	80.30	45.9%
TOTAL	94.80	81.10	46.1%
Target	0.00	175.90	100.0%
Shortfall	94.80	94.80	53.9%
Offset payment	£270,180		

2. Regulated and whole life carbon emissions (CPG Energy Efficiency and Adaptation Chts 6 & 9)

Regulated and whole life carbon	Yes / No
a. Worksheets provided (BRUKL for each stage)	YES
b. Sample method stated	NO
c. Whole Life Carbon Assessment provided	N/A

3. Be Lean (CPG Energy Efficiency and Adaptation cht 3)

Passive measures	Yes / No
i. Orientation and site layout optimised	YES
ii. All areas at least dual aspect and designed to allow natural ventilation	NO
iii. Solar shading incorporated into the design	NO
iv. Exposed internal thermal mass and night time purge ventilation	NO
v. Glazing percentage	Yes %
vi. Other please state	

Building Fabric	Yes / No
i. Meets all Building Regulation part L2A Limiting Fabric Parameters	YES
ii. Meets all Part L2A Concurrent Notional Dwelling Specification	YES
iii. Meets LETI design guide standards	NO
iv. Meets Passivhaus Standard	NO
v. Air permeability	NO

Active design measures	Yes / No
i. High efficiency lighting	YES
ii. Efficient MVHR	YES
iii. Waste water heat recovery incorporated?	NO

4. Be Clean (Camden Local Plan Policy CC1, CPG Energy Efficiency and Adaptation Cht 4)

Potential decentralised energy network	Yes / No
a. Is the site within 500m of existing network?	YES
b. If no to a) Within 1km of existing or potential network?	NO
c. If yes to b) Future proofing checklist completed?	NO
d. Is a site wide heat network proposed?	NO
e. Is Combined Heat and Power (CHP) proposed?	NO
f. CHP and District Heating Feasibility Checklist completed?	NO

5. Be Green (Camden Local Plan Policy CC1 and section 8.11)

Minimum 20% reduction in CO ₂ from on-site renewable energy technologies	Viable (Yes / No)	Proposed (kW)	Expected tCO ₂ saved per annum	Document	Page / section reference
a. Solar Thermal	NO				
b. Solar PV	NO				
c. Waste heat source heat pump	NO				
d. Water source heat pump	NO				
e. Ground source heat pump	NO				
f. Air source heat pump (air to water)	YES	400	80.3	ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 7.2
g. Air source heat pump (air to air)	NO				
h. Biomass	NO				
i. Wind	NO				
j. Other please state					

6. Be Seen (Camden Local Plan section 8.28, CPG Energy Efficiency and Adaptation Cht 5)

Building management, metering and monitoring (Camden Local Plan section 8.28, CPG Energy Efficiency and Adaptation section 5.19 to 5.22)	Yes / No
i. Will there be a whole building energy management system (BEMS)?	YES
ii. Will all units be individually metered?	YES
iii. Will key plant be monitored post construction?	YES
b. Be Seen reporting requirements to GLA	Yes / No
i. Required data will be upload to GLA 'Be Seen' portal	YES
ii. Required target dates have been set out for subsequent stages	NO
iii. Metering plans in place to enable in-use reporting	YES

Sustainability Statement

7. Overheating

Overheating / cooling (Camden Local Plan Policy CC2 and section 8.41.8.4 and CPG Energy Efficiency and Adaptation Cht 10)	Yes / No
a. Overheating - dynamic thermal modelling completed using TM52 and TM48?	YES
b. Cooling hierarchy followed and passive design measures incorporated?	YES
c. Is active cooling proposed?	NO

8. Reducing Waste and the Circular Economy

Material and waste (CPG Energy Efficiency and Adaptation Cht 9)	Response
a. % of construction & demolition waste be reused/recycled/recovered?	50 %
b. % of excavation waste be put to beneficial use?	50 %
c. Circular economy statement submitted (see note)	N/A

Please note that the target for local authority collected waste of 50% to be recycled or composted by 2020 (60% by 2031) is assessed separately through consideration of the Waste Strategy document for the development.

9. Green infrastructure

Green infrastructure and biodiversity (Camden Local Plan Policy CC2, CPG Energy Efficiency and Adaptation Cht 10)	Area m ²
a. Green/blue roof	0
b. Green roof	250
c. Green wall	260
d. Brown roof	0

10. Water

Water efficiency (Camden Local Plan section 8.55 and CPG Water and Flooding Cht 2)	Response	Unit
a. Greywater/rainwater harvesting system feasibility assessment completed	NO	N/A
b. Greywater harvesting capacity proposed	N/A	m ³
c. Rainwater harvesting capacity proposed	N/A	m ³
d. Drought resistant or low water consuming plants	YES	
e. Water efficient fittings details	YES	

Location of justification / supporting information

Document	Page / section reference
ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 7.3.6
ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 7.3.6
ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 7.3.6
ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 7.3.6
ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 7.3.6

Document	Page/ section reference
ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 7.3.6
ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 7.3.6
ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 7.3.6
ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 7.3.6
ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 7.3.6

Document	Page/ section reference
ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 7.4

Document	Page/ section reference
ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 9
All of the Proposed development has been modelled	
N/A	N/A

Document	Page/ section reference
ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 4.1.3
ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 2.5
ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 4.1.3
ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 4.1.4
ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 5.2.3

Document	Page/ section reference
ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 5.2.6
ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 5.2.6
ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 5.2.6

Document	Page/ section reference
ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 5.3
ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 5.3

Document	Page/ section reference
ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 6.2.1
ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 6.2.2
ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 6.2.2

Document	Page/ section reference
ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 8.1.4
ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 8.1.3
ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 8.1.1

Document	Page/ section reference
ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 8.6
ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 8.6
ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 8.1

Document	Page/ section reference
ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 4.2
ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 4.1
ICP01-MDS_MFL-PL-REP-SS08_SL22-000002 Energy statement	Section 4.1

Document	Page/ section reference
ICP01-MDS_ARP-EV-REP-SS08_SL23-990009 Sustainability Statement	Section 4.1
ICP01-MDS_ARP-EV-REP-SS08_SL23-990009 Sustainability Statement	Section 4.1
N/A	N/A

Document	Page/ section reference
N/A	N/A
DOC REF TBC Design and Access Statement - Landscape Report	Section 1.5 / 1.6
DOC REF TBC Design and Access Statement - Landscape Report	Section 1.5 / 1.6
N/A	N/A

Document	Page/ section reference
ICP01-MDS_ARP-EV-REP-SS08_SL23-990009 Sustainability Statement	Section 4.1