6.11 Climate Change

6.11.1 Chapter 16 of the 2022 ES reported the likely significant effects of the Proposed Development on the global climate in terms of greenhouse gas emissions (GHG) and climate change, with no significant residual effects identified during the construction and operational phases.

6.11.2 This Chapter has been prepared in order to outline the key changes within the Section 73 application (S73), in relation to the Detailed Element of the 2023 Consent (Plots N3-E, N4, and N5) and to identify any changes to the findings and conclusions associated with the 2022 ES.

Legislation, Planning Policy and Guidance

6.11.3 A review of UK legislation, planning policy and guidance relevant to the proposals has been previously undertaken as part of the 2022 ES. This 2025 Addendum is informed by additional documents, outlined below. Details on the documents that have been updated since the 2022 ES are also outlined below.

National Planning Policy Framework (NPPF) Ministry of Housing, Communities & Local Government (MHCLG (formerly DLUHC), 2024)

6.11.4 Since the 2022 ES, the NPPF has been updated. Updated versions for NPPF paragraphs 159 and 160 (now 160 and 161) are provided below.

6.11.5 *'New development should be planned for in ways that*:

a) avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through incorporating green infrastructure and sustainable drainage systems; and

b) help to reduce greenhouse gas emissions, such as through its location, orientation and design. Any local requirements for the sustainability of buildings in plans should reflect the Government's policy for national technical standards.'

6.11.6 *'To help increase the use and supply of renewable and low carbon energy and heat, plans should*:

a) provide a positive strategy for energy from these sources, that maximises the potential for suitable development, and their future re-powering and life extension, while ensuring that adverse impacts are addressed appropriately (including cumulative landscape and visual impacts);

b) consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure their development; and

c) identify opportunities for development to draw its energy supply from decentralised, renewable or low carbon energy supply systems and for colocating potential heat customers and suppliers'.

The London Plan (Greater London Authority, 2021)

6.11.7 In addition to the policies outlined in the 2022 ES, the following policies have been used to inform this 2025 Addendum:

- GG5 Growing a good economy:
  - '*recognise and promote the benefits of a transition to a low carbon circular economy to strengthen London's economic success'*.
- GG6 Increasing efficiency and resilience:
  - *'seek to improve energy efficiency and support the move towards a low carbon circular economy, contributing towards London becoming a zero carbon city by 2050'*; and
  - *'ensure buildings and infrastructure are designed to adapt to a changing climate, making efficient use of water, reducing impacts from natural hazards like flooding and heatwaves, while mitigating and avoiding contributing to the urban heat island effect'.*

Camden Local Plan (Camden Council (CC), 2021)

6.11.8 In addition to the policies outlined in the 2022 ES, the following policies have been used to inform this 2025 Addendum:

- Policy CC3 Water and flooding:
  - *'The Council will seek to ensure that development does not increase flood risk and reduces the risk of flooding where possible.*
    We will require development to:
    a. incorporate water efficiency measures'; and
  - *'d. incorporate flood resilient measures in areas prone to flooding;*
    e. utilise Sustainable Drainage Systems (SuDS) in line with the drainage hierarchy to achieve a greenfield run-off rate where feasible'
- Policy CC5 Waste:
  - *'The Council will seek to make Camden a low waste borough.*
    We will:
    a. 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;'

Draft New Camden Local Plan (CC, 2024)

6.11.9 Camden's next Local Plan covering the period 2026-2041 was drafted in 2024, set to be updated for further consultation in Spring 2025. The Draft New Local Plan has been used in addition to inform this 2025 Addendum.

6.11.10 It states that, following the Council's declaration of a Climate and Ecological Emergency in 2019, a key challenge for the plan is *'to ensure that development in Camden seeks to mitigate and adapt to climate change by using less energy; minimise the use of resources; follow the principles of a circular economy, where re-use and recycling are prioritised, and ensure that buildings and spaces are designed to cope with more extreme weather'.*

6.11.11 The following policies and site guidance are of relevance to GHG emissions:

- Policy DS1: Delivering Healthy and Sustainable Development:
  - *'The Council will require development to support the creation of healthy and sustainable places in Camden by:'*

    'ii. Delivering buildings that achieve net zero carbon emissions, optimise resource efficiency and are designed to be resilient to climate change'.

- Policy W1 – West Camden:
  - *'To support the delivery of development in this area the Council will seek the provision of, and contributions to, the delivery of infrastructure, from appropriate development. The Council will work with relevant providers to secure the infrastructure needed to support development and provide the facilities needed for the area's communities'*, including:
    'vi. The delivery of flood mitigation measures and sustainable drainage schemes;
    vii. Greening and biodiversity enhancements;
    viii. The provision of infrastructure for supporting local energy generation'.

- Allocation W2 (WHI2) – O2 Centre, car park, car showrooms and 14 Blackburn Road:
  - *'Development must:'*

    'o) incorporate pedestrian, cycling and environmental improvements to ensure the development is fully integrated and accessible to the wider area';
    's) provide infrastructure for supporting local energy generation on site and/or connections to existing or future networks where feasible';

  - *'A Flood Risk Assessment will be required in accordance with Policy CC11 (flood risk), as the site is within an area identified by the Council as being at risk of flooding, and parts of the site have experienced problems with flooding in the past.';*
  - *'Sustainable Urban Drainage Systems will be required on this site in accordance with Policy CC12 (sustainable drainage). Recommendations in the Flood Risk Assessment will be secured by planning condition';* and
  - *'An integrated servicing and vehicle access strategy that does not detrimentally impact the quality of walking and cycling routes, spaces and public realm must be provided'.*

- Policy CC1 – Responding to the climate emergency:

- *'The Council will prioritise the provision of measures to mitigate and adapt to climate change and require all development in Camden to respond to the climate emergency by:*
  i. Supporting the retrofitting of existing buildings to make them more energy efficient and reduce the energy needed to occupy the building;
  ii. Prioritising and enabling the repurposing and re-use of existing buildings over demolition;
  iii. Following circular economy principles, minimising waste and increasing re-use;
  iv. Reducing whole life carbon emissions, by taking a whole life carbon approach, considering both embodied carbon and operational carbon;
  v. Being designed and constructed to be net zero carbon in operation;
  vi. Utilising low carbon technologies and maximising opportunities for renewable energy generation, and heat networks;
  vii. Being designed to be resilient to climate change and meet the highest standards of sustainable design and construction;
  viii. Minimising the risk of overheating through design and avoiding reliance on air conditioning;
  ix. Improving water efficiency;
  'x. Minimising and avoiding the risk of flooding from all sources, and incorporating multifunctional Sustainable Urban Drainage Systems (SuDS) to reduce surface water run-off;
  xi. Protecting and enhancing existing green spaces and water sources, enhancing biodiversity, strengthening nature recovery and providing multi-functional green infrastructure; and
  xii. Prioritising sustainable transport'.

- Policy CC2 – Repurposing, Refurbishment and Re-use of Existing Buildings:
  - *'A. The Council will seek to ensure that the repurposing, refurbishment and re-use of existing building/s is prioritised over demolition.*
    B. Where sites include existing building/s, applicants will be required to undertake a condition and feasibility assessment, to understand the re-use potential of the existing buildings and explore the best use of the site. This should be undertaken at the earliest opportunity, as part of the design process.
    C. Taking into account the findings of the condition and feasibility assessment, applicants will be required to demonstrate that alternative development options (such as refit, re-use, refurbish, substantial refurbishment and extension) have been fully explored.
    D. Applicants should discuss the findings of the condition and feasibility assessment and the assessment of alternative development options (as set out in criteria B and C above) with the Council, at the earliest opportunity, before progressing the design of any scheme.
    E. The Council will only permit proposals that involve the partial or substantial demolition of existing building/s, where it can be demonstrated to the Council's satisfaction that:
      i. The applicant has comprehensively explored a range of alternative development options, informed by the condition and feasibility assessment, prior to considering full or partial demolition.
      ii. The proposal constitutes the best use of the site, when considered against alternative options involving the retention, repurposing, refurbishment and/or re-use of the existing building/s.

F. Where it is demonstrated to the Council's satisfaction that the partial or full demolition of existing building/s is justified, the applicant will be required to submit a pre-demolition audit. This should demonstrate that the re-use of materials has been explored on site; identify all materials within the building and document how they will be managed; show how building material waste will be minimised; and demonstrate that circular economy principles have been applied in accordance with Policy CC3 Circular Economy and Reduction of Waste'.

- Policy CC3 – Circular economy and reduction of waste:
  - *The Council will seek to ensure that developments minimise waste, use resources efficiently, and are designed to facilitate easy maintenance and adaptability of use. The Council will:*
    i. Require all developments to optimise resource efficiency by:
      a. Reducing waste through the application of the waste hierarchy (Prevention, Preparing for reuse, Recycling, Other recovery, Disposal);
      b. Reducing energy and water use during demolition and construction, whilst effectively mitigating air quality impacts;
      c. Minimising the amount of materials required;
      d. Using materials with low embodied carbon content; and
      e. Enabling low energy and water demands once the building is in use.
    ii. Require all developments to be designed for:
      a. easy maintenance and renovation;
      b. flexibility and adaptation; and
      c. longer life and facilitating deconstruction for future re-use.
    iii. Require applicants to submit a Sustainability Statement with all applications documenting how the requirements set out in criteria (i) and (ii) have been met.
    iv. Require new build major applications, or major applications which involve substantial demolition and rebuild, to submit a Circular Economy (CE) Statement, following GLA guidance. The following details must be included in the CE Statement:
      a. an accurate record of all the materials used in the building's construction;
      b. the proportion of materials and elements reused on-site;
      c. materials reused from other sites;
      d. recycled materials;
      e. new materials by mass and material intensity (kg per m2); and
      f. a calculation of the development's overall 'material circularity'.
    v. Require applicants needing to submit a Circular Economy Statement (as set out in criteria (iv) above) to explore opportunities to use the site, or other local sites, for the temporary storage of re-usable materials, during the construction phase, to enable other developments coming forward in the locality to use those materials'.
- Policy CC4 – Minimising carbon emissions:
  - *'The Council will seek to ensure that all development minimises carbon emissions over the lifespan of the building(s). The Council will:*
    i. Require applicants for all new build development and all development proposing substantial demolition to:
      a. submit a whole life carbon emissions assessment (including operational and embodied carbon), following the GLA Whole Life Cycle Carbon Assessment template, as part of the planning application; and

b. demonstrate that they have done all they can to minimise carbon emissions over the lifespan of the building/s, targeting the GLA Whole Life Carbon aspirational benchmarks in modules B – C.

ii. Require new build developments to meet embodied carbon limits of less than 500kg CO_2/m^2 for residential, and less than 600kg CO_2/m^2 for non-residential.

iii. Require applicants to demonstrate what action they have taken to reduce embodied carbon in the development, as part of the Energy or Sustainability Statement'.

- Policy CC6 – Energy reduction in new buildings:
  - *'The Council will ensure that all new buildings are designed and built to be net zero carbon in operation. The Council will:*

i. Require new buildings to be fossil fuel free (that is, not connected to the gas grid, use non-combustion energy systems), ultra-low energy, use low carbon heat, and contribute to the generation of renewable energy on-site.

ii. Require new buildings to use as little energy as possible to heat them. The Council will require all new residential and non-residential buildings to achieve a space heating demand of 15 or less kWh/m2 GIA/yr.

iii. Require new buildings to use as little (total) energy as possible (expressed as EUI – Energy Use Intensity). For each of the building types set out below (or nearest equivalent), the Council will require development to meet the following standards, unless it is demonstrated to the Council's satisfaction that it is not technically feasible:

a. Residential buildings must achieve an EUI of no more than 35 kWh/m^2 GIA/ yr.'

b. '[Retail buildings] must achieve an EUI of no more than 70 kWh/m^2 GIA/year.'

iv. Require renewable energy generation on-site to match, or be in excess of, the predicted total annual energy demand of the building (EUI), in accordance with the following requirements:

a. the proposed building must not use fossil fuels on-site;

b. it must have a level of space heating demand and energy use intensity (EUI) compliant with levels in this policy; and

c. on-site renewable energy generation (e.g. through photovoltaics (PVs) has been maximised and achieves at least 80 kWh/m^2 building footprint for all building types (at least 120 kWh/m^2 for industrial buildings).'

'vi. Require applicants/landowners to monitor the total energy use and renewable energy generation of the development for the first 5 years of occupation and submit the annual figures to the Local Planning Authority.

vii. Require applicants to demonstrate that the development will deliver all the requirements of this policy through the provision of a detailed Energy Statement and through the use of an energy assured performance method'.

- Policy CC7 – Heat networks:
  - *'The Council will ensure that all major developments utilise energy from heat networks where feasible. The Council will:*

i. Require all major development to comply with London Plan policy SI3 (Energy infrastructure) and refer to related GLA Energy Assessment guidance for heat networks and utilising secondary heat sources.

ii. Require all major development located within a 500m radius of an energy network to be designed for connection. Where a heat network exists in the vicinity of the proposed development, the applicant must prioritise connection to that network provided that the network operator has agreed a decarbonisation strategy with the GLA and Camden Council'.

- Policy CC9 – Water efficiency:
  - 'To maximise water efficiency in Camden the Council will:
    i. Require all new development to be designed to be water efficient;
    ii. Require all residential developments to meet the optional requirement for water efficiency set out in Part G of the Building Regulations of 110 litres per person per day (including 5 litres for external water use). Proposals will be strongly encouraged to reduce daily water use even further than this (to, for example, 85 litres per day per person) where possible;
    iii. Require all new build non-residential development to achieve 'excellent' for category Wat 01 of BREEAM unless it can be demonstrated that it is not technically feasible;
    iv. Require all new buildings to include rain water harvesting appropriate to the scale and nature of the proposed development; and
    v. Require major developments and high, or intense, water use developments, such as hotels, hostels and student housing, to include a grey water system, unless it is demonstrated to the Council's satisfaction that this is not feasible or practical'.
- Policy CC10 – Sustainable design and construction certification:
  - *'The Council will ensure that development achieves the highest possible standards of sustainable design and construction. The Council will:*
    i. Require residential development resulting in the conversion or extension of 500sqm or more, or delivering 5 or more dwellings, to achieve a minimum of 'excellent' in BREEAM domestic refurbishment.
    ii. Require non-residential development resulting in the conversion or extension of 500sqm or more floorspace to achieve a minimum of 'excellent' in BREEAM non-domestic refurbishment.
    iii. Require non-residential development (new build) of 500sqm or more floorspace to achieve a minimum of 'Excellent' BREEAM Non-domestic new construction'.
- Policy CC11 – Flood risk:
  - '*The Council will seek to ensure that development addresses and reduces flood risk to mitigate the impact of flooding on Camden's communities, both now and in the future'.*
- Policy CC12 – Sustainable drainage:
  - *'The Council will seek to control surface water run-off from development to reduce the risk of flooding. The Council will:*
    i. Require all development to include permeable surfaces, incorporate green and blue roofs, and seek to replace non-permeable surfaces where feasible. This should be documented within the Sustainability Statement, or Drainage report if required.
    ii. Resist proposals including impermeable surfacing unless it can be demonstrated to the Council's satisfaction that this is unavoidable.
    iii. Require all major development to reduce surface water run off rates to greenfield run-off rates, through the application of Sustainable Drainage Systems, following the drainage hierarchy in the London Plan.
    iv. Require Sustainable Drainage Systems to be designed to provide multi-functional benefits and be integrated into the development.

v. Expect sustainable drainage system proposals to meet national and local guidance to ensure they are adequately designed, built and maintained for the lifetime of development'.

Camden Climate Action Plan 2020-2025 (CC, 2020)

6.11.12 CC's Climate Action Plan sets out CC's commitments to tackling climate change from 2020-2025, with the aim of achieving net-zero by 2030. It has been used in addition to inform this 2025 ES Addendum.

6.11.13 The plan uses four themes for its various *'immediate actions' a*nd *'programme development' activities*:

- *'People – Everyone who lives, works, studies and visits the borough will be well informed and actively contribute to tackling the climate crisis in all aspects of their lives';*
- *'Places - Camden's public spaces will encourage and enable healthy and sustainable travel choices and promote biodiversity';*
- *'Buildings - Camden's buildings will be energy efficient, comfortable and fit-for-purpose for a zero carbon future';* and
- *'Organisations - All organisations in Camden will operate responsibly and embed tackling the climate crisis throughout their operations'*.

Camden Carbon Scenarios for 2025 and 2030 – An update to the 2010 Study (Carbon Descent, 2019)

6.11.14 The Camden Carbon Scenarios study '*seeks to highlight the likely route to a low carbon Camden in 2030'*, using a series of scenarios titled '*Conservative Heat Pump – Static Grid', 'Conservative Heat Pump – IAG Grid Decarbonisation*' and '*Radical Heat Pump – IAG Grid Decarbonisation'*. It has been used in addition to inform this 2025 ES Addendum.

6.11.15 The study concludes that '*the likely approach would require the removal of all gas appliances, boilers, ovens and hobs to be replaced with electric heat pumps in each building on connected via district heating. A zero carbon emission zone for transport would need to be established so that only pure battery electric vehicles could drive through the borough. And to ensure that the additional electricity required through this electrification approach could be supplied without any associated carbon, a vast increase in solar PV capacity would be needed on Camden's buildings'.*

Camden Planning Guidance (CC, 2021)

6.11.16 Camden Planning Guidance (CPG) documents support the policies outlined in the Camden Local Plan (2017). They have been used in addition to inform this 2025 ES Addendum.

6.11.17 With regards to climate, the air quality CPG states:

- *'All proposals involving demolition and construction should adopt best practice measures to reduce and mitigate emissions'*;
- *'On-site monitoring may be required dependant on the scale of demolition and construction'*; and

- *'Development should reduce emissions by being energy efficient (reducing emissions associated with the operation of the building'*.

6.11.18 With regards to climate, the energy efficiency and adaptation CPG states:

- *'All development in Camden is expected to reduce carbon dioxide emissions by following the energy hierarchy in accordance with Local Plan policy CC1';*
- *'Energy strategies are to be designed following the steps set out in the energy hierarchy' of 'Be lean use less energy', 'Be clean supply energy efficiently' and 'Be green use renewable energy';*
- *'Natural 'passive' measures should be prioritised over active measures to reduce energy';*
- *'Major residential development to achieve 10%, and non-residential development to achieve 15% reduction (beyond part L Building regulations), in accordance with the new London Plan, through on-site energy efficient measures (Be lean stage)';*
- *'All new major developments in Camden are expected to assess the feasibility of decentralised energy network growth';*
- *'There are a variety of renewable energy technologies that can be installed to supplement a development's energy needs';*
- *'Developments are to target a 20% reduction in carbon dioxide emissions from on-site renewable energy technologies';*
- *'All development in Camden is expected to reduce carbon dioxide emissions through the application of the energy hierarchy';*
- *'All new build major development to demonstrate compliance with London Plan targets for carbon dioxide emissions';*
- *'Deep refurbishments (i.e. refurbishments assessed under Building Regulations Part L1A/L2A) should also meet the London Plan carbon reduction targets for new buildings';*
- *'All new build residential development (of 1 – 9 dwellings) must meet 19% carbon dioxide reduction';*
- *'Developments of five or more dwellings and/or more than 500sqm of any gross internal floorspace to achieve 20% reduction in carbon dioxide emissions from on-site renewable energy generation';*
- *'All developments should demonstrate how sustainable design principles have been considered and incorporated';*
- *'Sensitive improvements can be made to historic buildings to reduce carbon dioxide emissions.';*
- *'Warm homes and buildings are key to good health and wellbeing. As a guide, at least 10% of the project cost should be spent on environmental improvements';*
- *'The 20% carbon reduction target (using on-site renewable energy technologies) applies for developments of five or more dwellings and/or more than 500 sqm of any gross internal floorspace';*
- *'We will expect creative and innovative solutions to repurposing existing buildings, and avoiding demolition where feasible';*
- *'All development should seek to optimise resource efficiency and use circular economy principles.';*
- *'Active cooling (air conditioning) will only be permitted where its need is demonstrated and the steps in the cooling hierarchy are followed (Local Plan policy CC2)';* and

- *'Development is expected to reduce overheating risk through following the steps in the cooling hierarchy'.*

Camden Citizens' Assembly on the Climate Crisis (CC, 2019)

6.11.19 Camden Council declared a Climate Emergency in July 2019, where three discussion sessions were held with residents to develop an approach for the climate crisis. The subsequent report has been used in addition to inform this 2025 Addendum. The 17 agreed actions under the categories of 'The Home', 'The Neighbourhood' and 'The Council' include:

- *'Make all new homes carbon zero';*
- *'Create more green space on residential streets';*
- *'Fit solar panels on as many homes as possible';*
- *'Plant more trees and create more allotments;'*
- *'Enable electric transport with infrastructure and incentives';* and
- *'Developers to fund energy efficient retrofits of old buildings'.*

ISO 14090:2019 Adaptation to Climate Change – Principles, Requirements and Guidelines (BSI, 2019)

6.11.20 The main purpose of this standard is to provide organisations and projects with a consistent, structured and pragmatic approach to prevent or minimise the harm that climate change could cause and also to take advantage of opportunities. It has been used in addition to inform this 2025 ES Addendum.

Scheme Changes

6.11.21 The S73 involves adjustments to the height, massing and footprints of the buildings; the replacement of Block N4D with a two-storey community centre; new landscaping and additional public realm; revisions to architecture; and revisions to unit mix and internal layouts. Overall, there is an increase in floorspace of 5,766 sqm (GIA) for the Detailed Element compared with the Approved Scheme, an increase of 43 residential units, an increase in the size of the community centre and a slight reduction in commercial floorspace (-8sqm GIA).

6.11.22 While there is an increase in the floorspace proposed in the Detailed Element, there is a corresponding reduction in floorspace in the Outline Elements such that overall, there is no change proposed to the total floorspace permitted for the O2 Masterplan as a whole, apart from an 8sqm (GIA) reduction in commercial floorspace from the Detailed Element.

6.11.23 Furthermore, the updated severability plan shows the extent of the severable area within Plot S8 within the Outline Element West. It is the applicants' firm intention to deliver this plot in accordance with the approved parameter plans through the submission of reserved matters pursuant to the hybrid planning permission. This will maximise the public benefits that will result from the development. However, it is recognised that an extant planning permission (ref PWX0202103), together with an extant section 73 permission (ref. 2023/1292/P) (Builder's Merchant Scheme), exist in relation to this part of the Site, and as a consequence this area has been identified as severable. In order to ensure a robust approach, an assessment has been made of the environmental impacts that would potentially arise in the event that the Builder's Merchant Scheme is brought forward under those existing extant planning permissions rather than pursuant to reserved matters under the O2 Masterplan development.

Assessment Methodology and Significance Criteria

6.11.24 The following section outlines the methodologies applied to identify and assess the potential impacts and likely effects to result from the changes to the 2023 Consent within the S73 application.

6.11.25 The scope of the assessment and potential effects assessed as set out in the 2022 ES remain valid.

Climate change resilience and adaptation

6.11.26 The 2022 ES chapter included a Climate Change Resilience Risk Assessment, which looked at the risks posed by flooding and overheating, on the Proposed Development. A Climate Change Resilience Risk Assessment has been undertaken here, and is appended to this chapter in **Appendix 6.11.1**.

Extent of The Study Area

6.11.27 The extent of the study area as set out in the 2022 ES remains valid.

Method of Baseline Collection

6.11.28 The method of baseline collection set out in the 2022 ES remains valid. The baseline presented in the 2022 ES has been apportioned for the buildings on the site of the S73 application. As the homebase has now been demolished (December 2024), this is just the car wash, with a Gross Internal Area (GIA) of 241.63 m.

Method of Assessment

6.11.29 The assessment carried out in 2022 used the IEMA Environmental Impact Assessment Guide to: Assessing Greenhouse Gas Emissions and Evaluating their Significance (2017). This has since been updated, i.e. the IEMA EIA Guide to Assessing Greenhouse Gas Emissions and Evaluating their Significance 2nd Edition (2022), and has been used as the basis for the methodology of this assessment.

6.11.30 The Whole Life Carbon Assessment used in the 2022 ES has also been updated. The results of this are used to determine the GHG emissions relating to greenhouse gas emissions relating to lifecycle stages A1-A5, B1-B5, B6, and C1-C4 of the Proposed Development.

6.11.31 The benchmarks used to estimate GHG emissions arising from operational water use (lifecycle stage B7) and operational transport in the 2022 ES have also been updated, and are set out below.

6.11.32 Incorporating the changes set out above, the methodology for estimating GHG emissions arising from each lifecycle stage are set out below:

Demolition & Construction Phase

- A1 – A3 Product Stage: GHG emissions associated with the material extraction, transportation and manufacturing of construction products; and
- A4-A5 Construction process stage: GHG emissions associated with product delivery to the site and the installation process.

6.11.33 A Whole Life-Cycle Carbon Assessment (WLCA) has been carried out for the Proposed Development, as amended. The results of this are used to determine the GHG emissions relating to the construction stage of the Proposed Development.

Operational Phase

- B1-B5 In-use stage: This stage captures GHG emissions associated with the operation of the built assets over their period of use, from practical completion to the end of their service life, including use, maintenance, repair, refurbishment and replacement. A Whole Life-Cycle Carbon Assessment (WLCA) has been carried out for the Proposed Development. The results of this are used to determine the GHG emissions relating to the in-use stage of the Proposed Development.
- B6 Operational *energy:* Estimated GHG emissions associated with the estimated total operational energy have been taken from the Whole Life-Cycle Carbon Assessment (WLCA) carried out for the Proposed Development.

- B7 Operational water: GHG emissions associated with operational water consumption and foul water. Estimated water consumption for the Proposed Development has been established, based on benchmarks from the Building Services Research and Information Association (BSRIA) Rules of Thumb Guidance for Building Services BG 85 (BSRIA, 2024), for the residential and non-residential areas. The number of occupants has been calculated based on the flat occupancy numbers in the proposed area schedule for residential areas, and has been based on the SD5078: BREEAM UK New Construction – Version 6.1.0 benchmarks for the non-residential areas . Estimated foul water has been assumed to be equal to water consumption, in line with project experience. The BEIS Greenhouse Gas Reporting Conversion Factors 2023 have been used to calculate GHG emissions from operational water consumption.
- Operational transport emissions, which are not included in Figure 1, have also been included in the assessment, due to the substantial role they play in the UK's total GHG emissions. Surface transport is the largest source of GHG emissions in the UK, accounting for 24% of 2019 emissions, according to the Committee on Climate Change (2020). The GHG emissions associated with vehicles travelling to and from the proposed development during the operational stage have been estimated by applying a Department for Energy Security and Net Zero (DESNZ) emissions factor for average vehicle use, to trip numbers provided by the project transport consultant, Arup. and an indicative trip distance figure, estimated by the Department for Transport. These emissions factors include wheel to tank emissions, as well as tail pipe emissions.

6.11.34 Additional information on the assumptions that have been made is provided in **Appendix 6.11.2**.

Decommissioning Phase

6.11.35 *C1 -C4 End of life stage:* GHG emissions associated with the demolition and disassembly of the Proposed Development at the end of its life. A Whole Life-Cycle Carbon Assessment (WLCA) has been carried out for the Proposed Development. The results of this are used to determine the GHG emissions relating to this stage of the Proposed Development.

Consideration of Scope 3 emissions

Background

6.11.36 As previously stated, this Climate Change chapter has been undertaken in line with the IEMA Guidance and other best practice industry guidance. With some minor exceptions set out in the section above, the assessment has included a consideration of all scope 1, 2 and 3 GHG emissions from activities within lifecycle stages A, B, and C of relevance to the Proposed Development, as set out in the Whole Life Carbon Assessment for the Built Environment (RICS, 2023) (the "RICS 2023 Guidance") and BS EN 15978 Sustainability of Construction Works - Assessment of Environmental Performance of Buildings - Calculation Method ("BS EN 15978") guidance. This includes the following scope 3 emissions:

- Operational transport emissions associated with residents during the operational phase (e.g. private car use, and deliveries organised by residents).

6.11.37 The IEMA Guidance advocates for flexibility and proportionality to suit the specific development being assessed. The guidance states that 'certain life cycle modules (or stages) can be excluded if these exclusions are clearly highlighted and justified by the practitioner using professional judgement and in accordance with the materiality and cut-off guidance.' The sources of GHG emissions excluded from the assessment have been excluded on this basis.

6.11.38 The recent Supreme Court judgement on the application of R (on the application of Finch on behalf of the Weald Action Group) v Surrey County Council and others [2024] UKSC 20 (judgement given on 20 June 2024) ("Finch") has raised implications for the assessment of scope 3 emissions from development projects in the EIA process, potentially requiring the consideration of additional indirect emissions that do not, to date, require consideration under the relevant industry good practice guidance, including the IEMA GHG Guidance, the RICS 2023 Guidance and BS EN 15978.

Finch judgement

6.11.39 In Finch, the Supreme Court considered whether, under the EIA Directive and the EIA Regulations 2017, it was lawful for Surrey County Council to grant planning permission for the expansion of an oil drilling facility in the Surrey Hills where the EIA for the project had only considered emissions from sources within the control of the developer (scope 1 emissions). The EIA had not considered emissions arising as a consequence of the activities at the site – specifically from future combustion by downstream users of the fuel into which the extracted oil would be refined (scope 3 emissions).

6.11.40 In its decision, the Supreme Court unanimously rejected the approach taken by the Court of Appeal – that it was for a local authority to determine whether there was a 'sufficient causal connection' between the project and the scope 3 emissions. The majority of the Court considered that scope 3 emissions were effects of the project (because it was an agreed fact that the oil would be refined; burnt as fuel and release greenhouse gases). The Council's failure to take this into account meant that the planning permission granted was unlawful. The appeal was therefore allowed.

6.11.41 Some of the core considerations that led to this judgement included:

- The EIA Directive and EIA Regulations 2017 require an assessment of "likely" effects. In this case, it was not only likely, but "inevitable", that the extraction of oil would lead to combustion and the emission of greenhouse gases into the atmosphere;
- Although the terms "direct" and "indirect" are not defined in the legislation itself, the European Commission's Guidance for use by EIA practitioners states that an "indirect effect" was one which occurred 'away from the immediate location or timing of the proposed action'. The judge therefore concluded that scope 3 emissions are indirect effects of the operation of the scheme; and
- The Directive does not impose a geographical limit on the scope of the environmental effects of a project. The majority therefore considered that there was "no justification" for limiting the EIA in this case to emissions which only occurred at the site. Furthermore, it would not have been in keeping with the challenge posed by climate change to have approached the matter in this way.

6.11.42 In the judgment, Lord Leggatt confirmed that these requirements should apply to projects such as this, where the fossil fuel commodity being extracted will not be used in the creation of a different type of object. There should be an 'inevitable pathway from extraction to combustion', with no 'element of conjecture or speculation' about what will ultimately happen to the commodity. 'It is agreed that it will inevitably be burnt as fuel. And a reasonable estimate can readily be made of the quantity of GHGs which will be released when that happens.' As advised by the judge, this would therefore apply to projects such as oil extraction and coal mining projects but would not apply to projects such as facilities to manufacture iron or steel or to manufacture motor vehicle or aircraft components.

6.11.43 In the case of steel, the judge advised that it has 'many possible uses and can be incorporated into many different types of end product used for all sorts of different purposes. In the case of a facility to manufacture steel, it could reasonably be said that environmental effects of the use of products which the steel will be used to make are not effects of manufacturing the steel. That is because the manufacture of the steel is far from being sufficient to bring about those effects. Such effects will depend on innumerable decisions made "downstream" about how the steel is used and how products made from the steel are used. This indeterminacy regarding future use would also make it impossible to identify any such effects as "likely" or to make any meaningful assessment of them at the time of the decision whether to grant development consent for the construction and operation of the steel factory.'

6.11.44 In the case of manufacturing components for use in the construction of motor vehicles or aircraft, the judge advised that 'where a component is manufactured which forms a small part of a much larger object, such as a motor vehicle or aircraft, the view might reasonably be taken that the contribution of the component is not material enough to justify attributing the impact on the environment of the end product to the activity of manufacturing the component part. In any event, the number of motor vehicles or aircraft in which such parts will be incorporated and the use which will subsequently be made of them may be so conjectural that no realistic estimate could be made of GHG emissions arising from such use on which a reasoned conclusion could be based. I have discussed above that the EIA process does not require that attempts be made to measure or assess putative effects which are incapable of such assessment.'

Implications for GHG Emissions Impact Assessments in EIA

6.11.45 Based on the decision in Finch, we consider that any additional assessment of upstream and downstream scope 3 GHG emissions in EIA, beyond those already recommended in current industry guidance, should be limited to situations where:

- The likely use of any products from the Proposed Development or likely nature/type and scale of any other upstream or downstream activities related to the Proposed Development can reasonably be determined, such that realistic estimates can be made of the GHG emissions arising from them; and
- In line with good EIA practice, where it is considered proportionate to scope them in (e.g. when they are expected to make a material contribution to a likely significant environmental effect).

6.11.46 Upstream scope 3 GHG emissions that did not require consideration in EIA, as set out in the industry guidance documents previously referenced, but which could now potentially require consideration, in line with the recent supreme court judgement, could include:

6.11.47 GHG emissions associated with the manufacture of the plant and machinery used to construct the Proposed Development; and GHG emissions associated with the Proposed Development's design and consenting process.

6.11.48 Any plant and machinery used in the demolition and construction of the Proposed Development would not be manufactured and used solely for the Proposed Development. Each item of construction plant or machinery would typically be used in the construction of numerous other development projects over a number of years. The proportion of any embedded GHG emissions associated with the manufacture of such plant and machinery that could be attributed to the Proposed Development is therefore likely to be small. Given the uncertainty regarding the type, quantity, and design life of the various items of plant and equipment that would be used in the demolition and construction process, it would also be extremely difficult to realistically estimate their embedded GHG emissions and what proportion could be attributed to the Proposed Development. On this basis, and given that GHG emissions from this source are not expected to be material in scale such that they could influence the overall significance of effects of the Proposed Development, this source has been scoped out.

6.11.49 Similarly, given the complexities of the Proposed Development design and consenting process and the number of parties that contribute to it, it would be extremely difficult to realistically estimate the GHG emissions associated with this process. It is also considered unlikely that the GHG emissions from this process would be material in scale such that they could influence the overall significance of effects of the Proposed Development. On this basis, this source has also been scoped out.

6.11.50 As the Proposed Development, once complete and operational, is not expected to produce any “products”, no additional downstream scope 3 GHG emissions that have not already been scoped into the assessment, in line with the industry good practice guidance documents previously referenced, have been identified. As such, no additional downstream scope 3 GHG emissions have been considered in the assessment.

6.11.51 On this basis, the assessment methodology employed in this ES Addendum chapter is considered to align with the recent Finch judgement.

Significance Criteria

6.11.52 The IEMA (2022) Guidance contains updated criteria for the assessment of significance which are set out below.

6.11.53 Specific criteria for assessing the significance of GHG emissions effects are provided in the IEMA GHG Guidance. The guidance also recommends that the context of the project’s carbon footprint is determined in order to establish whether the project supports or undermines a trajectory towards net zero. This can help decision makers in their evaluation of the effects of the proposals. The IEMA GHG Guidance has been adapted and applied to this assessment, which is outlined below.

Assessment of Effect Significance

6.11.54 Three overarching principles are set out in the IEMA (2022) GHG Guidance, which IEMA advise should be considered when looking to establish the effect significance of GHG emissions. These comprise:

- *'The GHG emissions from all projects will contribute to climate change, the largest interrelated cumulative environmental effect;*
- *The consequences of a changing climate have the potential to lead to significant environmental effects on all topics in the EIA Directive (e.g. human health, biodiversity, water, land use, air quality); and*
- *GHG emissions have a combined environmental effect that is approaching a scientifically defined environmental limit; as such any GHG emissions or reductions from a project might be considered to be significant.'*

6.11.55 IEMA has further built on these principles in the guidance, as follows:

- '*When evaluating significance, all new GHG emissions contribute to a negative environmental impact; however, some projects will replace existing development or baseline activity that has a higher GHG profile. The significance of a project's emissions should therefore be based on its net impact over its lifetime, which may be positive, negative or negligible;*
- *Where GHG emissions cannot be avoided, the goal of the EIA process should be to reduce the project's residual emissions at all stages; and*
- *Where GHG emissions remain significant, but cannot be further reduced, approaches to compensate the project's remaining emissions should be considered.'*

6.11.56 The goal of the Paris Agreement is to limit global temperature rise to well below 2°C, aiming for 1.5°C, compared with pre-industrial levels, in order to stand a greater chance of avoiding severe adverse effects from climate change. The UK has set a legally binding GHG reduction target for 2050 through the Climate Change Act, including interim five-yearly carbon budgets, which define a trajectory towards net zero. The Climate Change Committee (CCC) has confirmed that the 2050 target and interim budgets are compatible with the required magnitude and rate of GHG emissions reductions required in the UK to meet the goals of the Paris Agreement, thereby limiting severe adverse effects.

6.11.57 To meet the 2050 target and interim budgets, action is required to reduce GHG emissions from all sectors, including urban development projects. As stated in the IEMA GHG Guidance, 'EIA for any proposed project must therefore give proportionate consideration to whether and how that project will contribute to or jeopardise the achievement of these targets...the crux of significance therefore is not whether a project emits GHG emissions, nor even the magnitude of GHG emissions alone, but whether it contributes to reducing GHG emissions relative to a comparable baseline consistent with a trajectory towards net zero by 2050'.

6.11.58 Building on this, the IEMA GHG Guidance sets out an approach to the assessment of effect significance that comprises judgements on the Proposed Development's consistency with policy requirements (as these have been implemented to ensure the economy decarbonises in line with the UK's net zero target); and the extent to which the Proposed Development's GHG emissions have been mitigated.

6.11.59 Table 6.11-1 sets out the significance of effect criteria provided in the IEMA Guidance. The significance of effect scale is also shown in Figure 6.11-1 to illustrate how this relates to the 1.5ºC compliance trajectory.

Table 6.11-1 Criteria for determining significance of effect

Significance of effect	Criteria for assessing effect significance
Major	The Proposed Development's GHG impacts are not mitigated or are only compliant with do-minimum standards set through regulation, and do not provide further reductions required by existing local and national policy for projects of this type. A project with major adverse effects is locking in emissions and does not make a meaningful contribution to the UK's trajectory towards net zero.
Moderate	The Proposed Development's GHG impacts are partially mitigated and may partially meet the applicable existing and emerging policy requirements but would not fully contribute to decarbonisation in line with local and national policy goals for projects of this type. A project with moderate adverse effects falls short of fully contributing to the UK's trajectory towards net zero.
Minor	The Proposed Development's GHG impacts would be fully consistent with applicable existing and emerging policy requirements and good practice design standards for projects of this type. A project with neutral

Significance of effect	Criteria for assessing effect significance
	effects is fully in line with or exceeds measures necessary to achieve the UK's trajectory towards net zero.
Negligible	The Proposed Development's GHG impacts would be reduced through measures that go well beyond existing and emerging policy and design standards for projects of this type, such that radical decarbonisation or net zero is achieved well before 2050. A project with negligible effects provides GHG performance that is well '*ahead of the curve'* for the trajectory towards net zero and has minimal residual emissions.
Beneficial	The Proposed Development's net GHG impacts are below zero and it causes a reduction in atmospheric GHG concentration, whether directly or indirectly, compared to the without-project baseline. A project with major beneficial effects substantially exceeds net zero requirements with a positive climate impact.

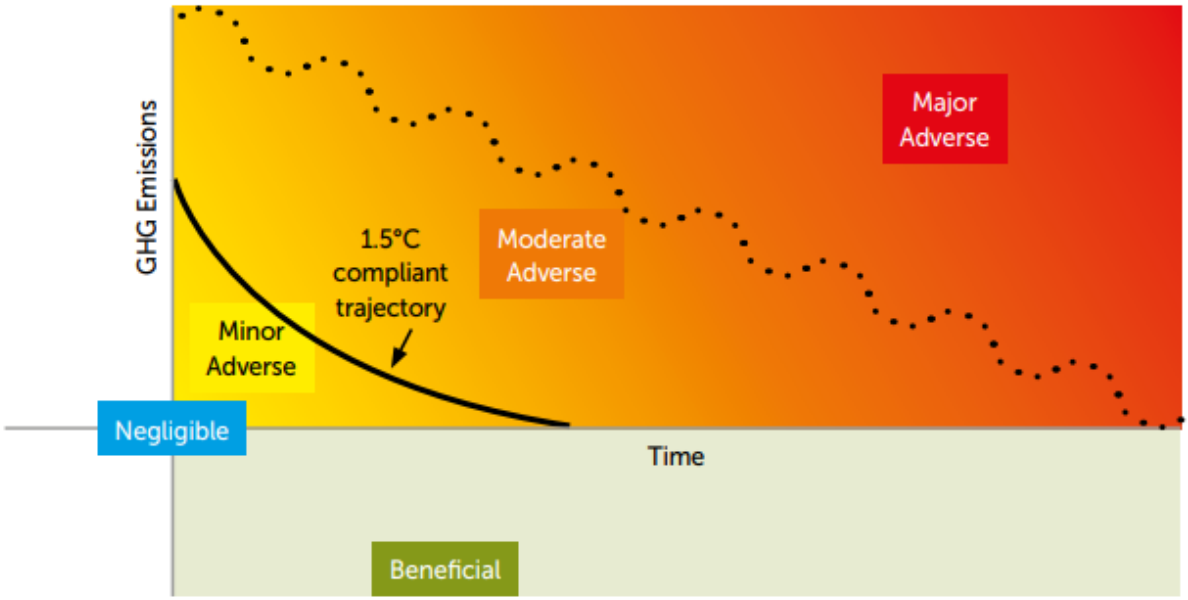

Figure 6.11-1 Different levels of significance plotted against the UK's net zero compatible trajectory. Source: IEMA guide to *'Assessing Greenhouse Gas Emissions and Evaluating their Significance'* Second edition

6.11.60 In line with the IEMA GHG Guidance, major and moderate adverse and beneficial effects are considered significant. Effects can be described as:

- Beneficial or adverse;
- Permanent or temporary;
- Reversible or irreversible; and
- Short, medium or long term.

6.11.61 The IEMA GHG Guidance advises that the approach should be modified for the very largest-scale developments, which can in themselves have magnitudes of GHG emissions that materially affect the UK's or a devolved administration's total carbon budget. In the case of such developments, irrespective of the level of mitigation proposed, if net GHG emissions exceed 5% of the relevant UK or devolved administration carbon budget, the effects of the development are likely to be significant.

6.11.62 The guidance also advises that *'Practitioners should note that existing policy and regulation may in some cases lag behind the necessary levels of GHG emission reductions (or types of actions to achieve those) that are compatible with the UK's or devolved administrations' targets and with a science based 1.5°C compatible trajectory towards net zero. Meeting the minimum standards set through existing policy or regulation cannot necessarily be taken as evidence of avoiding a significant adverse effect, and it is recommended that practitioners consider and have reference also to emerging policy/standards and the guidance of expert bodies such as the CCC on necessary policy developments, particularly for multi-phased projects with long timescales. This must be evaluated by the practitioner as part of the evidence base used in the assessment of effects. References to 'existing' and 'emerging' policy in the principles of significance and example criteria above must be interpreted with this in mind.'*

Contextualisation of GHG emissions

6.11.63 The IEMA Guidance also recommends that the context of the project's carbon footprint is determined in order to establish whether the project supports or undermines the trajectory towards net zero. This can help decision makers in their evaluation of the effects of the proposals.

6.11.64 The 2022 ES assessed the GHG emissions arising from the proposed development in the context of emissions at a local scale (Camden), regional scale (London), and national scale (the UK as a whole). This same methodology is carried out here, for each budget period during construction and operation.

Consultation

6.11.65 There has been no additional consultation undertaken with LBC, specific to this assessment.

Assessment of Effects, Mitigation and Residual Effects

Demolition & Construction Phase

6.11.66 As stated in paragraph **Error! Reference source not found.** the GHG emissions for l ifecycle stages A1-A5 are based on the WLC submitted with this Addendum for the detailed elements. Although the floor areas have been reduced, the GHG emissions for the outline elements remain consistent with the previous WLC assessment. Therefore, an assessment for the outline elements has not been repeated here, as the conclusions drawn remain unchanged from the worst-case scenario previously assessed.

Table 6.11-2 Estimated total GHG emissions for the construction stage (tCO_2e)

Lifecycle Stage/Module	Total GHG emissions (tCO_2e)
Construction stage A1-A3	32,683
Construction stage A4-A5	6,493
Total	**39,176**

6.11.67 Mitigation

6.11.68 This section describes the construction stage mitigation measures “embedded” into the Proposed Development (or ‘primary mitigation’) (i.e where commitments have been made), as well as additional supplementary mitigation measures (or ‘secondary mitigation’) that have been proposed, which are relevant to this Chapter.

6.11.69 Embedded mitigation measures

6.11.70 The embedded measures to reduce demolition and construction phase GHG emissions set out in the 2022 ES remain valid for the outline element of the Proposed Development.

6.11.71 The Circular Economy Strategy Addendum (Appendix 6.11.3) provides confirmation of the circular economy commitments made in response to the design amendments associated with the S73 application. No changes to the strategy are expected as a result of the S73 application, and therefore the embedded mitigation reported in the 2022 ES remains valid.

6.11.72 The WLCA Addendum (2025) (Appendix 6.11.4) states that:

- *"New Build elements have been designed around low embodied carbon materials and efficient design. This is a primary mitigation measure embedded within the design."; and*
- *"Contractors have begun the process of deconstructing the existing buildings on site with an approach that minimises waste and enables material reuse. 35 tonnes of the existing steels from the previous Homebase building have so far been reclaimed and sold to a steel merchant. This will enable the reuse of the materials directly on other projects and will avoid the need for reprocessing and downcycling. This demonstrates the applicant’s*

commitment to material reuse and the prevention of waste creation through the redevelopment of the site."

6.11.73 Supplementary mitigation measures

6.11.74 There are not expected to be any additional adverse impacts associated with the S73 amendments and therefore additional mitigation is not required and the mitigation requirements within the 2022 ES remain valid.

Operational Phase

6.11.75 As stated in paragraph 6.11.33 the GHG emissions for lifecycle stages B1-B5, B6, and C1-C4 are based on the WLC submitted with this Addendum for the Detail Element. Although the floor areas have been reduced, the GHG emissions for the Outline Element remain consistent with the previous WLC assessment. Therefore, an assessment for the Outline Element has not been repeated here, as the conclusions drawn remain unchanged from the worst-case scenario previously assessed.

6.11.76 Emissions from the operational water (B7) and transport lifecycle stages have been calculated using the benchmarks outlined in paragraph 6.11.33.

6.11.77 Estimated total GHG emissions arising from the operational stage of the Proposed Development are presented in Table 6.11-3.

Table 6.11-3 Estimated total GHG emissions for the operational stage (tCO_2e)

Lifecycle Stage/Module	Total GHG emissions (tCO_2e)
In-use stage embodied carbon (lifecycle stage B1-B5)	29,489
In-use stage operational energy use (lifecycle stage B6)	21,200
In-use stage operational water use (lifecycle stage B7)	186
In-use stage operational transport	87,416
End-of-life stage (lifecycle stage C1-C4)	2,163
Total	**140,454**

Mitigation

6.11.78 This section describes the operation stage mitigation measures "embedded" into the Proposed Development (or 'primary mitigation') (i.e where commitments have been made), as well as additional supplementary mitigation measures (or 'secondary mitigation') that have been proposed, which are relevant to this Chapter.

Embedded mitigation

6.11.79 All embedded measures to reduce operational phase GHG emissions set out in the 2022 ES remain valid for the outline elements of the Proposed Development.

6.11.80 The S73 Energy Statement Addendum (Appendix 6.11.4) states the following:

- "*The revised scheme is compliant with all of the requirements of London Plan (March 2021) policies SI2, SI3 and SI4 and meets the commitments made in the approved Energy Strategy.*
- *There is an estimated overall reduction in net regulated carbon emissions for the revised scheme in comparison to the approved Energy Strategy.*
- *The percentage of carbon reduction at each stage of the Energy Hierarchy meets the requirements of London Plan policy SI 2.*
- *There is a minor shortfall in carbon reduction percentage at the Green stage in comparison to the approved Energy Strategy due to a reduction in PV array area available as a result of the massing changes. However, this is inconsequential as the policy targets are still met and the overall estimated net regulated carbon is lower for the revised scheme compared to the approved Energy Strategy.*
- *Residential overheating risk has been reduced in accordance with the London Plan Cooling Hierarchy. Thermal modelling results demonstrate a minor improvement in the number of compliant dwellings through using only passive design measures compared to the approved Energy Strategy."*

Supplementary mitigation measures

6.11.81 There are not expected to be any additional adverse impacts associated with the S73 amendments and therefore additional mitigation is not required and the mitigation requirements within the 2022 ES remain valid.

Residual Effects

Comparison with UK, London and Camden Carbon Budgets

6.11.1 Table 6.11-4 to Table 6.11-6 set out the net GHG emissions arising from the Proposed Development's construction and operational phases in the context of the UK national carbon budgets, London Carbon Budgets and the Tyndall Centre Energy Only Carbon Budgets for Camden, considering both the embedded and additional mitigation.

6.11.2 While it is likely that the proposed mitigation measures would reduce the Proposed Development's GHG emissions, it has not been possible to quantify these reductions at this stage. This is considered a conservative approach.

Table 6.11-4 Post mitigation comparison of the GHG emissions arising from the Proposed Development with UK Carbon Budgets

UK Carbon Budgets		**Baseline**	**Impact**		
UK Carbon Budget Period	**UK Carbon Budget ($MtCO_2e$)**	**Total Baseline emissions (tCO_2e)**	**GHG emissions from the Proposed Development (tCO_2e)**	**Baseline% of UK Carbon Budget**	**Proposed Development% of UK Carbon Budget**
Fourth (2023-2027)	1,950	12.5	17,669	0.00000064%	0.0009%
During the fourth budget period, the Proposed Development would generate GHG emissions from the construction process (lifecycle stage A1-A5) in 2026 for building N4, and 2027 for buildings N3E, N4, and N5. This equates to 0.0009% of the total carbon budget. It is likely that the proposed embedded mitigation and additional mitigation measures would reduce these GHG emissions; however, it has not been possible to quantify these reductions at this stage. The Proposed Development is unlikely to have a material impact on the UK's ability to meet this carbon budget.					
Fifth (2028-2032)	1,725	12.5	104,623	0.00000071	0.0060%
During the fifth budget period, the Proposed Development would generate GHG emissions from the construction process for (lifecycle stages A1-A5) between 2028 and 2029 for all buildings, and in 2030 for building N5. It would then generate GHG emissions from in use stage (lifecycle stage B1-B5), operational energy (lifecycle stage B6), operational water consumption (lifecycle stage B7), and operational transport in 2030 for buildings N3E, and N4, and between 2030 and 2032 for all buildings. This equates to 0.0060% of the total carbon budget. It is likely that the proposed embedded mitigation and additional mitigation measures would reduce these GHG emissions; however, it has not been possible to quantify these reductions at this stage. The Proposed Development is unlikely to have a material impact on the UK's ability to meet this carbon budget.					

UK Carbon Budgets		Baseline	Impact		
UK Carbon Budget Period	**UK Carbon Budget ($MtCO_2e$)**	**Total Baseline emissions (tCO_2e)**	**GHG emissions from the Proposed Development (tCO_2e)**	**Baseline% of UK Carbon Budget**	**Proposed Development% of UK Carbon Budget**
Sixth (2033-2037)	965	12.5	145,606	0.0000013%	0.015%
Throughout the sixth budget period, the Proposed Development would generate GHG emissions from in use stage (lifecycle stage B1-B5), operational energy (lifecycle stage B6), operational water consumption (lifecycle stage B7), and operational transport for all buildings. This equates to 0.015% of the total carbon budget. It is likely that the proposed embedded mitigation and additional mitigation measures would reduce these GHG emissions; however, it has not been possible to quantify these reductions at this stage. The Proposed Development is unlikely to have a material impact on the UK's ability to meet this carbon budget.					

Table 6.11-5 Post mitigation comparison of the GHG emissions arising from the Proposed Development with the Tyndall Centre carbon budgets for London

London Carbon Budgets		Baseline	Impact		
Carbon Budget Period	**London Carbon Budget ($MtCO_2e$)**	**Total Baseline emissions (tCO_2e)**	**GHG emissions from the Proposed Development (tCO_2e)**	**Baseline% of London Carbon Budget**	**Proposed Development% of London Carbon Budget**
2023-2027	65.9	12.5	0	0.000019%	0
The Proposed Development will not be operational during this period.					
2028-2032	34.3	12.5	17,296	0.000036%	0.0504%
During the fifth budget period, the Proposed Development would generate GHG emissions from the construction process (lifecycle stages A1-A5) in 2029 for all buildings, and in 2029 for building N5. It would then generate GHG emissions from operational energy (lifecycle stage B6) in 2030 for buildings N3 and N4, and between 2031 and 2032 for all buildings. This equates to 0.107% of the total carbon budget. It is likely that the proposed embedded mitigation and additional mitigation measures would reduce these GHG emissions; however, it has not been possible to quantify these reductions at this stage. The					

London Carbon Budgets		Baseline	Impact		
Carbon Budget Period	**London Carbon Budget ($MtCO_2e$)**	**Total Baseline emissions (tCO_2e)**	**GHG emissions from the Proposed Development (tCO_2e)**	**Baseline% of London Carbon Budget**	**Proposed Development% of London Carbon Budget**
Proposed Development is unlikely to have a material impact on the UK's ability to meet this carbon budget.					
2033-2037	17.9	12.5	35,333	0.000070%	0.197%
Throughout the sixth budget period, the Proposed Development would generate GHG emissions from operational energy (lifecycle stage B6) for all buildings. This equates to 0.197% of the total carbon budget. It is likely that the proposed embedded mitigation and additional mitigation measures would reduce these GHG emissions; however, it has not been possible to quantify these reductions at this stage. The Proposed Development is unlikely to have a material impact on the UK's ability to meet this carbon budget.					

Table 6.11-6 Post mitigation comparison of the GHG emissions arising from the Proposed Development with Camden Tyndall Centre Carbon Budgets

Tyndall Centre Energy Only Carbon Budgets		Baseline	Impact		
Carbon Budget Period	**Tyndall Centre Carbon Budget for Camden ($MtCO_2e$)**	**Total Baseline emissions (tCO_2e)**	**GHG emissions from the Proposed Development (tCO_2e)**	**Baseline% of Tyndall Centre Carbon Budget**	**Proposed Development% of Tyndall Centre Carbon Budget**
2023-2027	2.4	12.5	0	0.00052%	0
The Proposed Development will not be operational during this period.					
2028-2032	1.3	12.5	17,296	0.00096%	1.33%

Tyndall Centre Energy Only Carbon Budgets		Baseline	Impact		
Carbon Budget Period	**Tyndall Centre Carbon Budget for Camden ($MtCO_2e$)**	**Total Baseline emissions (tCO_2e)**	**GHG emissions from the Proposed Development (tCO_2e)**	**Baseline% of Tyndall Centre Carbon Budget**	**Proposed Development% of Tyndall Centre Carbon Budget**
During the fifth budget period, the Proposed Development would generate GHG emissions from the construction process (lifecycle stages A1-A5) in 2029 for all buildings, and in 2029 for building N5. It would then generate GHG emissions from operational energy (lifecycle stage B6) in 2030 for buildings N3 and N4, and between 2031 and 2032 for all buildings. This equates to 1.33 % of the total carbon budget. It is likely that the proposed embedded mitigation and additional mitigation measures would reduce these GHG emissions; however, it has not been possible to quantify these reductions at this stage. The Proposed Development is unlikely to have a material impact on the UK's ability to meet this carbon budget.					
2033-2037	0.7	12.5	35,333	0.0018%	5.05%
Throughout the sixth budget period, the Proposed Development would generate GHG emissions from operational energy (lifecycle stage B6) for all buildings. This equates to 5.05% of the total carbon budget. It is likely that the proposed embedded mitigation and additional mitigation measures would reduce these GHG emissions; however, it has not been possible to quantify these reductions at this stage. The Proposed Development is unlikely to have a material impact on the UK's ability to meet this carbon budget.					

Significance of effects assessment

6.11.3 Table 6.11-7 and Table 6.11-8 set out the assessment of residual effect significance for the construction and operational stages respectively, in accordance with the IEMA (2022) Guidance.

Table 6.11-7 Assessment of residual effect significance during the construction stage

Receptor	Compliance with existing and emerging policy	Effect significance
Global atmosphere	The Proposed Development has been considered in relation to local, regional, and national policy. The key construction phase mitigation measures which are relevant to the S73 application: • *"New Build elements have been designed around low embodied carbon materials and efficient design. This is a primary mitigation measure embedded within the design."; and* • *"Contractors have begun the process of deconstructing the existing buildings on site with an approach that minimises waste and enables material reuse. 35 tonnes of the existing steels from the previous Homebase building have so far been reclaimed and sold to a steel merchant. This will enable the reuse of the materials directly on other projects and will avoid the need for reprocessing and downcycling. This demonstrates the applicant's commitment to material reuse and the prevention of waste creation through the redevelopment of the site."* It is considered that the Proposed Development is consistent with applicable existing and emerging policy requirements and good practice design standards for projects of this type. Therefore, in line with the IEMA GHG Guidance, this is considered to be a minor adverse effect. In line with the guidance, this effect is considered to be not significant.	Minor adverse, direct, long term and permanent Therefore, the significance of effects assessed in the 2022 ES remain unchanged.

Table 6.11-8 Assessment of residual effect significance during the operational stage

Receptor	Compliance with existing and emerging policy	Effect significance
Global atmosphere	The Proposed Development has been considered in relation to local, regional, and national policy. As set out in the S73 Energy Statement Addendum: • *"The revised scheme is compliant with all of the requirements of London Plan (March 2021) policies SI2, SI3 and SI4 and meets the commitments made in the approved Energy Strategy.*	Minor adverse, direct, long term and permanent Therefore, the significance of effects assessed in the 2022 ES remain unchanged.

Receptor	Compliance with existing and emerging policy	Effect significance
	• *There is an estimated overall reduction in net regulated carbon emissions for the revised scheme in comparison to the approved Energy Strategy.* • *The percentage of carbon reduction at each stage of the Energy Hierarchy meets the requirements of London Plan policy SI 2.* • *There is a minor shortfall in carbon reduction percentage at the Green stage in comparison to the approved Energy Strategy due to a reduction in PV array area available as a result of the massing changes. However, this is inconsequential as the policy targets are still met and the overall estimated net regulated carbon is lower for the revised scheme compared to the approved Energy Strategy.* • *Residential overheating risk has been reduced in accordance with the London Plan Cooling Hierarchy. Thermal modelling results demonstrate a minor improvement in the number of compliant dwellings through using only passive design measures compared to the approved Energy Strategy."* It is considered that the Proposed Development is compliant with the applicable existing and emerging policy requirements and good practice design standards for projects of this type. Therefore, in line with the IEMA GHG Guidance, this is considered to be a minor adverse effect, which is considered to be not significant.	

Severability

6.11.4 The updated severability plan shows the extent of the severable area within Plot S8 within the Outline Element West.

6.11.5 As set out above, the 2022 ES assessed the worst case scenario for the outline element of the application, which includes Plot S8. Whilst the removal of Plot S8 from the application would reduce the overall GHG emissions associated with construction and operation of the Proposed Development, the principles for the rest of the development would remain the same.

6.11.6 As set out in paragraph 6.11.52, the IEMA 2022 Guidance sets out an approach to the assessment of effect significance that comprises the judgements on the Proposed Development's consistency with policy requirements, and the extent to which the Proposed Development's GHG emissions have been mitigated. The removal of Plot S8 from the application does not change the consistency of the Proposed Development with policy requirements, or the extent to which the GHG emissions have been mitigated. The conclusions drawn for the outline element of the Proposed Development in the 2022 ES, therefore remain valid.

6.11.7 These conclusions set out in 6.11.7 above are considered valid in circumstances where the Builder's Merchant Scheme is brought forward (including whether it is completed prior to full construction and remainder of the O2 scheme, or if the construction of the Builder's Merchant Scheme comes forward alongside the wider O2 scheme). Therefore the effects are considered to be in line with those drawn in the 2022 ES.

Limitation and Assumptions

6.11.8 When considering this ES Addendum, there has been no change in the limitations and assumptions outlined within 2022 ES.

Summary & Conclusions

6.11.9 An assessment of the likely significant effects arising from the Proposed Development compared to the 2023 Consent has been undertaken with regards to GHG emissions.

6.11.10 An updated assessment of the GHG emissions arising from the detailed elements of the wider O2 Masterplan was undertaken in line with the IEMA 2022 guidance. The updated WLC, also to be submitted alongside the application has informed the GHG emissions arising from each lifecycle stage.

6.11.11 The Proposed Development is not anticipated to lead to any change in the significance of effects during the construction and operation phases following the Proposed Development, when compared to the 2022 ES and the 2023 Consent, and this includes having regard for the updated severability plan in respect of the relevant area of plot S8.

6.11.12 As such the effects previously predicted in the 2022 ES remain unchanged, and it is considered that there are no material constraints to the S73 planning application as a result of GHG emissions.

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