

Planning Sub Committee 11 December 2023

ADDENDUM REPORT FOR ITEMS

UPDATE FOR CONSIDERATION AT PLANNING SUB-COMMITTEE **Item No.**

Reference No: HGY/2023/2137	Ward: Northumberland Park
Address: Tottenham Hotspur Stadium, 748 High Road, Tottenham, London N17 0AL	
Proposal: Minor Material Amendments to height, design, maximum floorspace and associated works to Plot 3 (Hotel / Residential development) of the hybrid planning permission HGY/2015/3000 (following previously approved amendments including HGY/2017/1183 to allow part residential (C3) use on Plot 3) for demolition and comprehensive redevelopment of the Northumberland Park Development Project through variation of Conditions A4 (Consented Drawings and Documents); A6 (Conformity with Environmental Statement) and Condition A7 (Maximum Quantity/Density) and D1 (Plot 3 specific drawings) under Section 73 of the Town and Country Planning Act (EIA development)	
Applicant: THFC	
Ownership: Private	

The following items in **green** will show amendments/corrections/changes and **red** deletions.

1. Reference to Plans and Document: shall read: See Appendix **9 12** to this report.

2. Surrounding Sites

An additional figure labelled as 7a was excluded in error and will be re-provided as it is referenced in para 3.21. This figure shows the relative heights of buildings within HRW and shall be inserted below para 3.21 and above Figure 7 (which will become 7b)

Figure 7a:



3. Energy, Climate Change and Sustainability

Additional Energy Strategy review has been provided by LBH Carbon Management Team following publication of the Committee report.

Energy Strategy

Para 6.10.14 shall be amended to state:

6.10.14 Additional clarifications on the improvements of the domestic performance and the thermal bridging have been requested by GLA and LBH officers. **Specific concerns have been raised regarding the hotels EUI over GLA benchmark and how to get these down, as well as elaboration on how better than expected space heating demand for residential elements will be achieved.** and Further updates are expected ~~either prior to the application being heard at committee or~~ **through conditions or** as an obligation within the S106.

Be Clean

LBH Carbon Management Officers have requested that additional detail be added to the consideration of the DEN connection and that this section be extended to state these requirements. Para 6.10.18 and 6.10.19 shall be amended to the following:

6.10.18 A drawing has been provided demonstrating space for heat exchangers in the energy centre/centres, and a safe-guarded pipe route to the site boundary. **The**

applicant will need to demonstrate that they will provide the following details prior to the commencement of construction including:

- a) Buried pipe (dry and filled with nitrogen) to our specification from the GF plant room to a manhole at the boundary of their site and evidence of any obstructions in highway adjacent to connection point;
- b) A good quality network within the building – 60/40 F&R, <50W/dwelling losses from the network – ideally to an agreed standard in the S106;
- c) A clear plan for QA of the network post-design approval through to operation, based on CP1;
- d) A clear commercial strategy identifying who will sell energy to residents and how prices/quality of service will be set.

6.10.19 If the DEN connection is unavailable or is otherwise not technically deliverable or financially viable then there is potential for roof mounted and mid-level ASHP, basement located Water-Source Heat Pumps, DHW thermal stores and a provision and strategy for future connection. These measures are considered to be acceptable. **The space for ASHPs should be safeguarded until it is confirmed the DEN is definitively not going to be available for connection.**

Be Lean

LBH Carbon Management Officers have requested that the metering strategy be improved and secured in the planning obligations. These will be added as new para 6.10.23 and state:

6.10.23 The proposed metering strategy of the building by the report includes the following:

- **Additional meter on the main resident's supply (or residents meter readings need to be collected and collated individually)**
- **Renewables are sub-metered for generation**
- **Special uses (such as electric vehicle charging) is sub-metered**
- **Individual bi-directional heat meters per dwelling**
- **Provide a visual energy display device to raise awareness and make users responsible for their energy consumption**
- **Meter and report landlord areas separately**
- **Commercial areas metered and reported separately**
- **Ensure OFGEM compliant meters**
- **Upload data to publicly accessible platform for five years.**

This data shall be presented in the GLA webform format for this development: (<https://www.london.gov.uk/what-we-do/planning/implementing-london-plan/london-plan-guidance/be-seen-energy-monitoring-guidance/be-seen-planning-stage-webform>)

Environmental sustainability

An additional comment has been received from LBH Carbon Management Officers requiring further detailed Circular Economy details. As such an additional para shall be added as:

6.10.35 Circular Economy: The report sets out the Key Commitments (Table 3-1), Bill of materials (Table 3-2) and Recycling and waste reporting form (Table 3-3). This is a fairly high level of information, and the applicant expects this to become more detailed as the detailed design progresses following permission. As such a condition is recommended to this affect.

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4. Amended Conditions

Following the updated information for and for reasons of correction and clarity the following updates to conditions are recommended, with additional text in green and omissions as red:

Site Wide Conditions: D5, E6, F6, G6 'Construction Hours'

These are proposed to be amended to reflect a modest relation of working hours. It should be noted that these hours are less lenient than those in the extant permission which would have allowed

Construction work which will be audible at the site boundary will be restricted to the following hours: 8.00 - 6.00pm Monday to Friday, 8.00am - 1.00pm Saturday and not at all on Sundays and Bank Holidays **unless with prior written agreement.**

Reason: In order to ensure that the proposal does not prejudice the enjoyment of neighbouring occupiers of their properties consistent with Policy DM21 of the Haringey Development Management Plan DPD July 2017.

Plot 3 Conditions:

Energy strategy

D28: The development hereby approved shall be constructed in accordance with the Sustainability and Energy Strategy Addendum (Revision P04), prepared by Buro Happold delivering a minimum site-wide 47% improvement on carbon emissions over ~~2013-21~~ Building Regulations Part L, with SAP~~2012~~**10** emission factors, high fabric efficiencies, connection to the Decentralised Energy Network, and solar photovoltaic (PV) energy generation.

The final agreed energy strategy shall be installed and brought into operation prior to the first occupation of the development. The development shall be carried out strictly in accordance with the details so approved and shall be operated and maintained as such thereafter for the lifetime of the development.

(a) Prior to the commencement of works above ground floor slab level for the Printworks Building, an updated Energy Strategy shall be submitted to the Local Planning Authority for its written approval. This shall include:

- i. Confirmation of the overall % reduction in line with the Energy Hierarchy;

- ii. Confirmation of the necessary fabric efficiencies to achieve a minimum 10% reduction (residential) and minimum 19% (non-residential) in SAP~~2012~~**10** carbon factors, including details to reduce thermal bridging;
- iii. Specification and efficiency of the proposed Mechanical Ventilation and Heat Recovery (MVHR), with plans showing the rigid or semi-rigid MVHR ducting;
- iv. Maximum possible solar energy to be generated on the roof, with details including: a roof plan; the number, angle, orientation, type, and efficiency level of the PVs; how overheating of the panels will be minimised; their peak output (kWp) **and annual generation (kWh/year), and confirmation how the generated electricity will be used on site to avoid the exportation to the grid;**
- ~~v. Detailed design of the heat network within the blocks and how this complies with CIBSE CoP1 and the LBH Generic Specification. This should include detailed calculation of distribution losses (based on pipe routes and lengths, pipe sizes, taking account of F&R temperatures and diversification and insulation) to calculate total heat loss from the system expressed in W/dwelling and should demonstrate losses have been minimised;~~
- v. Further detail for the alternative low-carbon heating solution, including clarification if the fan coil units would be in addition to the ASHP for the hotel, plant room layout and space requirements for roof, mid-level, and thermal stores, calculations for the alternative low-carbon heating scenario that shows the carbon reduction following the Energy Hierarchy, and state what carbon factor has been used.**
- ~~vi. A strategy for the supply of heat to buildings occupied before the site-wide energy centre is available;~~
- ~~vii. Further detail of how the developer will ensure the performance of the system will be safeguarded through later stages of design, construction and commissioning including provision of key information on system performance required by CoP1.~~
- ~~viii. A metering strategy.~~

~~(b) Within six months of first occupation of any dwellings, evidence shall be submitted in writing to the Local Planning Authority that the development has been registered on the GLA's Be Seen energy monitoring platform.~~

(b) The final approved Energy Strategy shall be operational prior to the first occupation of the Development. The Development shall be carried out strictly in accordance with the details so approved and shall be operated and maintained as such thereafter.

REASON: To ensure the development reduces its impact on climate change by reducing carbon emissions on site in compliance with the Energy Hierarchy, and in line with London Plan (2021) Policy SI2, SI3, and Local Plan Policy SP4 and DM22.

Overheating

D29 (a) Prior to the commencement of development for Plot 3, or each application for the first reserved matters relating to Appearance, Layout or Scale submitted by phase/block shall be accompanied by a detailed Overheating Assessment. The Overheating Assessment shall be submitted for the written approval of the Local Planning Authority and shall be informed by Dynamic Thermal Modelling based on CIBSE TM59 for the residential spaces and TM49 weather files for London's future weather/temperature projections. The assessment shall be undertaken in line with the following:

- The London Weather Centre dataset for the three DSYs;
- Model the 2020s DSY 2 and 3 and DSY1 for the 2050s and 20280s. Ensure the design has incorporated as many mitigation measures to pass these more extreme and future weather files as far as feasible. Any remaining overheating risk should inform the future retrofit plan.
- The applicant must demonstrate that the risk of overheating has been reduced as far as practical and that all passive measures have been explored, including reduced glazing and increased external shading. The applicant should also outline a strategy for residents to cope in extreme weather events, e.g. use of fans.
- Set out a retrofit plan for future and more extreme weather files, demonstrating how these measures will perform, how they can be installed, how they would reduce the overheating risk, what their lifecycle replacement will be, and who will be responsible for overheating risk.
- Floor plans highlighting the modelled dwelling typologies across the development and showing all rooms (with unique reference number). The applicant is expected to model the following most likely to overheat dwellings, corridors, and communal spaces: at least 15% of all room types across the development site; all single-aspect dwelling types facing west, east, and south; at least 50% of room types on the top floor; 75% of all modelled room types will facing South or South/west; room types closest to any risk of crime / noise and / or air pollution source, with windows closed at all times (unless they do not need to be opened and confirmed in the Noise and the Air Quality Assessments).
- Specify the ventilation strategy, including: floorplans showing which habitable spaces will be predominantly naturally ventilated or mechanically ventilated, specification of the proposed mechanical ventilation (efficiency and air changes), window opening areas.

(b) Any overheating mitigation measures set out in an approved Overheating Assessment shall be implemented before any of the dwellings in the Block to which they relate are first occupied and retained thereafter for the lifetime of the development.

Reason: In the interest of reducing the impacts of climate change, to enable the Local Planning Authority to assess overheating risk and to ensure that any necessary mitigation measures are implemented prior to construction, and maintained, in accordance with London Plan (2021) Policy SI4 and Local Plan (2017) Policies SP4 and DM21.

BREEAM Certificate

D30. a) Prior to commencement of the approved development, a design stage accreditation certificate for **every non-residential use** within that phase must be submitted to the Local Planning Authority confirming that the development will achieve a BREEAM of at least **“Very Good” “Excellent”** outcome (or equivalent) ~~for non-residential use within that phase.~~ **aiming for “Outstanding” where feasible in line with the approved Pre-Assessment report. This should be accompanied by a tracker demonstrating which credits are being targeted, and why other credits cannot be met on site.**

(b) The Building shall then be constructed in strict accordance with the details so approved, shall achieve the agreed rating and shall be maintained as such thereafter for the lifetime of the development.

(c) Prior to occupation of any non-residential use within each relevant Phase, a post-construction certificate issued by the Building Research Establishment (or equivalent) for each non-residential use in that phase must be submitted to the local authority for approval, confirming this standard has been achieved.

(d) In the event that the development fails to achieve the agreed rating for the development, a full schedule and costings of remedial works required to achieve this rating shall be submitted for our written approval with 2 months of the submission of the post construction certificate. Thereafter the schedule of remedial works must be implemented on site within 3 months of the Local Authority's approval of the schedule, or the full costs and management fees given to the Council for offsite remedial actions.

REASON: In the interest of addressing climate change and securing sustainable development in accordance with London Plan (2021) Policies SI2, SI3 and SI4, and Local Plan Policy SP4 and DM21.

Living walls

D34 (a) Prior to the above ground commencement of development, details of the living walls must be submitted to and approved in writing by the Local Planning Authority. Living walls must be planted with species that provide amenity and biodiversity value at different times of year. Plants must be grown and sourced from the UK and all soils and compost used must be peat-free, to reduce the impact on climate change. The submission shall include:

- i) A ground/first floor plan identifying where the living walls will be rooted in the ground;
- ii) A section demonstrating settled substrate levels of the planters in which the living walls will be rooted, of no less than 250mm;
- iii) Details on the range of native species and density of plug plants planted (minimum 20/m² with root ball of plugs 25cm³) to benefit native wildlife, suitable for the amount of direct sunshine/shading of the different living wall areas;
- iv) Management and maintenance plan, including frequency of watering arrangements.

(b) Prior to the occupation of the development, evidence must be submitted to and approved by the Local Planning Authority that the living walls have been delivered in line with the details set out in point (a). This evidence shall include photographs demonstrating the measured depth of substrate, planting and biodiversity measures. If the Local Planning Authority finds that the living walls have not been delivered to the approved standards, the applicant shall rectify this to ensure it complies with the condition. The living walls shall be retained thereafter for the lifetime of the development in accordance with the approved management arrangements.

Reason: To ensure that the development provides the maximum provision towards the creation of habitats for biodiversity and supports the water retention on site during rainfall. In accordance with London Plan (2021) Policies G1, G5, G6, SI1 and SI2 and Local Plan (2017) Policies SP4, SP5, SP11 and SP13.

Circular Economy (Pre-Construction report, Post-Completion report)

D35 Each application for reserved matters shall be accompanied by a detailed Circular Economy Statement in line with the GLA's Circular Economy Statement Guidance, which shall be submitted to and approved in writing by the Local Planning Authority. The statement shall adhere to the principles set out in the draft Circular Economy Statement. The development shall be carried out in accordance with the details so approved.

Reason: In the interests of sustainable waste management and in order to maximise the re-use of materials in accordance with London Plan (2021) Policies D3, SI2 and SI7, and Local Plan (2017) Policies SP4, SP6, and DM21.

Circular Economy Post-Completion Report

D36 Prior to the occupation of the development, a Post-Construction Monitoring Report should be completed in line with the GLA's Circular Economy Statement Guidance.

The relevant Circular Economy Statement shall be submitted to the GLA at: circulareconomystatements@london.gov.uk, along with any supporting evidence as per the guidance. Confirmation of submission to the GLA shall be submitted to, and approved in writing by, the Local Planning Authority, prior to the occupation [of any phase / building/ development].

Reason: In the interests of sustainable waste management and in order to maximise the re-use of materials in accordance with London Plan (2021) Policies D3, SI2 and SI7, and Local Plan (2017) Policies SP4, SP6, and DM21.

Whole-Life Carbon

D37 Prior to the occupation of each building, the post-construction tab of the GLA's Whole Life Carbon Assessment template should be completed in line with the GLA's Whole Life Carbon Assessment Guidance. The post-construction assessment should provide an update of the information submitted at planning submission stage. This should be submitted to the GLA at: ZeroCarbonPlanning@london.gov.uk, along with any supporting evidence as per the guidance. Confirmation of submission to the GLA shall be submitted to, and approved in writing by, the Local Planning Authority, prior to occupation of the relevant building.

Reason: In the interests of sustainable development and to maximise on-site carbon dioxide savings in accordance with London Plan (2021) Policy SI2, and Local Plan (2017) Policies SP4 and DM21.

5. The additional comments from Carbon Management Team have also required the following additions to the Heads of Terms:

Head of Terms number 15 should be amended as follows:

15. Carbon offsetting*

- ~~Payment of an agreed carbon offset amount (residential & non-residential) plus 10% management fee on commencement.~~ **Estimated carbon offset contribution (and associated obligations) of £196,365 (indicative), plus a 10% management fee; carbon offset contribution to be re-calculated at £2,850 per tCO2 at the Energy Plan and Sustainability stages.**

Additional Heads of Terms to be included:

- 18. Be Seen commitment to uploading energy data**
- 19. Energy Plan**
- 20. Sustainability Review**
- 21. Deferred offset contribution mechanism**
- 22. Heating strategy fall-back option if not connecting to the DEN**

Existing Heads of Terms “**18) Monitoring**” and “**19) S278 works**” of the Committee Report shall be amended to “**23) Monitoring**” and “**24) S278 works**”.

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- 6. The additional comments from The Carbon Management Team should be read in conjunction with Appendix 4 ‘Internal and External Consultee representations Civic Centre’:

Stakeholder	Comment	Response
Carbon Management	<p>Carbon Management Response 09/12/2023</p> <p>In preparing this consultation response, we have reviewed:</p> <ul style="list-style-type: none"> • Energy Strategy for Planning prepared by Buro Happold (dated 11 September 2015; Rev 03) • Energy Strategy Addendum prepared by Buro Happold (dated 2 August 2023; Rev P04) • Energy Strategy Addendum prepared by Buro Happold (dated 20 October 2023; Rev P05) • GLA Carbon Emission Reporting Spreadsheet • Sustainability Report prepared by Buro Happold (dated 30 July 2015; Rev 01) • Sustainability Statement Addendum prepared by Buro Happold (dated 2 August 2023; Rev P04) • Whole Life Carbon Assessment prepared by Buro Happold (dated 2 August 2023; Rev P02) • Circular Economy Statement prepared by Buro Happold rev P00 (dated 24 October 2023) • GLA responses • Relevant supporting documents. 	Noted and incorporated into conditions

1. Summary

The development achieves a reduction of 47% carbon dioxide emissions on site, which is supported in principle. More information is required but it is believed this can be dealt with through planning conditions.

2. Energy Strategy

Policy SP4 of the Local Plan Strategic Policies, requires all new development to be zero carbon (i.e. a 100% improvement beyond Part L 2021). The London Plan (2021) further confirms this in Policy SI2.

The overall predicted reduction in CO₂ emissions for the development shows an improvement of approximately 47% in carbon emissions with SAP10.2 carbon factors, from the Baseline development model (which is Part L 2021 compliant). This represents an annual saving of approximately 61.4 tonnes of CO₂ from a baseline of 130.3 tCO₂/year.

London Plan Policy SI2 requires major development proposals to calculate and minimise unregulated carbon emissions, not covered by Building Regulations. The calculated unregulated emissions are: 42.2 tCO₂.

The GLA Energy Assessment Guidance (Chapter 5.2, 6.2 p.11 & p.12) requires the results to demonstrate compliance with the energy hierarchy and the carbon targets for both residential and non-residential separately as set out in Policy SI 2, which the development currently fails.

<i>Site-wide (SAP10.2 emission factors)</i>			
	Total regulated emissions (Tonnes CO ₂ / year)	CO ₂ savings (Tonnes CO ₂ / year)	Percentage savings (%)
Part L 2021 baseline	130.4		
Be Lean	108.8	21.6	17%
Be Clean	66.5	42.2	32%
Be Green	68.9	-2.3	-2%
Cumulative savings		61.4	47%
Carbon shortfall to offset (tCO ₂)	68.9		
Carbon offset contribution	£95 x 30 years x 68.9 tCO ₂ /year = £196,365		
10% management fee	£19,636.5		

<i>Residential (SAP10.2 emission factors)</i>			
	Total regulated emissions (Tonnes CO ₂ / year)	CO ₂ savings (Tonnes CO ₂ / year)	Percentage savings (%)
Part L 2021 baseline	71		
Be Lean	54.9	16.1	23%
Be Clean	12.7	42.2	59%
Be Green	14.2	-1.5	-2%
Cumulative savings		56.8	80%
Carbon shortfall to offset (tCO ₂)	14.2		

<i>Non-residential – Hotel and restaurant uses (SAP10.2 emission factors)</i>			
	Total regulated emissions (Tonnes CO ₂ / year)	CO ₂ savings (Tonnes CO ₂ / year)	Percentage savings (%)
Part L 2021 baseline	59.4		
Be Lean	53.8	5.5	9%
Be Clean	53.8	0	0%
Be Green	54.7	-0.9	-1%
Cumulative savings		4.7	8%
Carbon shortfall to offset (tCO ₂)	54.7		

Energy Use Intensity / Space Heating Demand Applications are required to report on the total Energy Use Intensity and Space Heating Demand, in line with the GLA Energy Assessment Guidance (June 2022). The Energy Strategy should follow the reporting template set out in Table 5 of the guidance, including what methodology has been used. EUI is a measure of the total energy consumed annually, but should exclude on-site renewable energy generation and energy use from electric vehicle charging.

Building type	EUI (kWh/m ² /year)	Space Heating Demand (kWh/m ² /year)	Methodology used
Hotel	238.76	15.08	Part L2 approved DSM
Residential	51.06	5.52	Part L1 2021 SAP 1
Residential landlord circulation	51.06	5.52	Part L1 2021 SAP 1

Actions:

- Please justify how the hotel's EUI can be over 4 times higher than the benchmark? This is not acceptable.
- Please justify how the space heating demand can be 5 kWh/m²/year for the residential elements. Although supported in principle, this is very low

compared to the benchmark and what Passivhaus schemes achieve.

- The applicant should also undertake more effort to reduce the EUI further to the benchmark of 35 kWh/m²/year for the residential and 55 kWh/m²/year for the hotel.

Energy – Lean

The applicant has proposed a saving of 18.8 tCO₂ in carbon emissions (16 %) through improved energy efficiency standards in key elements of the build, based on SAP10.2 carbon factors. The residential goes beyond the 10% minimum under Be Lean, but the non-residential part of the development fails to demonstrate the compliance of minimum 15% reduction as set out in London Plan Policy SI2 and the GLA Energy Assessment Guidance.

The following u-values, g-values and air tightness are proposed:

Floor u-value	0.13 W/m ² K
Curtain Wall	0.64 W/m ² K
Roof u-value	0.13 W/m ² K
Door u-value	Not disclosed
Window u-value	0.624 W/m ² K
G-value	0.3-0.5
Air permeability rate	3 m ³ /hm ² @ 50Pa
Ventilation strategy	Mechanical ventilation with heat recovery (MVHR) efficiency; 0.58-0.63 W/l/s Specific Fan Power)
Waste Water Heat recovery?	To be explored at the next design stage.
Thermal bridging	Accredited Construction Details
Low energy lighting	100%
Heating system (Be Lean)	Residential: Individual gas boiler Non-Residential: Energetik DEN notional efficiency
Improvement from the target fabric energy efficiency (TFEE)	12% improvement, from 31.56 to 27.86 kWh/m ² /y

Overheating is dealt with in more detail below.

Energy – Clean

London Plan Policy SI3 calls for major development in Heat Network Priority Areas to have a communal low-temperature heating system, with the heat source selected from a hierarchy of options (with connecting to a local existing or planned heat network at the top). Policy DM22 of the Development Management Document supports proposals that contribute to the provision and use of Decentralised Energy Network (DEN) infrastructure. It requires developments incorporating site-wide communal energy systems to examine opportunities to extend these systems beyond the site boundary

to supply energy to neighbouring existing and planned future developments. It requires developments to prioritise connection to existing or planned future DENs.

The development is within 500 meters of a planned future DEN, so the development is expected to secure connection subject to demonstration of technical feasibility and financial viability.

Energetik has put forward Commercial and Residential Development Connection and Supply Agreements to the applicant since starting discussions on a DEN connection. Energetik have advised that the development could connect into their DEN from late 2025 onwards, which should fit with the hotel construction programme.

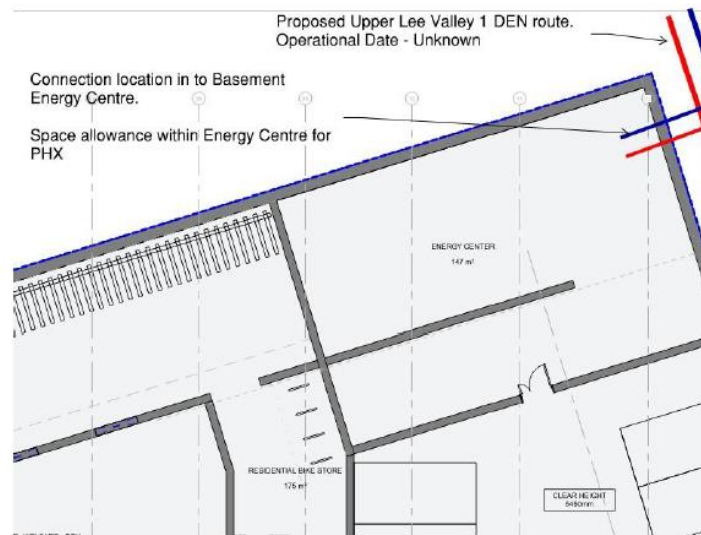


Figure 7—4 Proposed location for future DEN connection into the Application Site

The Be Clean strategy to connect to the DEN in North Tottenham is generally acceptable. A site-wide carbon reduction of 32% is calculated under Be Clean, which is supported. Some evidence should be provided that the plant room is adequately sized for a substation.

The applicant will need to demonstrate that they will provide the following details prior to the commencement of construction:

- e) Buried pipe (dry and filled with nitrogen) to our specification from the GF plant room to a manhole at the boundary of their site and evidence of any

	<p>obstructions in highway adjacent to connection point;</p> <p>f) A good quality network within the building – 60/40 F&R, <50W/dwelling losses from the network – ideally to an agreed standard in the S106;</p> <p>g) A clear plan for QA of the network post-design approval through to operation, based on CP1;</p> <p>h) A clear commercial strategy identifying who will sell energy to residents and how prices/quality of service will be set.</p> <p>The applicant’s alternative low-carbon heating strategy is to:</p> <ul style="list-style-type: none"> - Install air source heat pumps (ASHPs) for hotel rooms and amenity spaces with low temperature hot water for space heating, and fan coil units to amenity areas - Basement water source heat pumps to increase temperature of ASHP for domestic hot water to hotel and amenity areas - Include domestic hot water thermal stores - Provide future connection to DEN if it becomes available - Have a mid-level plant room ASHP serving residential flats with low-temperature hot water and domestic hot water through heat interface units. - The space for ASHPs should be safeguarded until it is confirmed the DEN is definitively not going to be available for connection. <p><u>Action:</u></p> <ul style="list-style-type: none"> - Clarify if the fan coil units would be in addition to the ASHP for hotel amenity. - Demonstrate plant room layout and space requirements for roof, mid-level, and thermal stores. - Please provide the alternative low-carbon heating scenario that shows the carbon reduction following the Energy Hierarchy, and state what carbon factor has been used. - Please identify on the plans where the alternative heating solution: the air source heat pumps will be located and how the units will be mitigated in terms of visual and noise impact. <p>Energy – Green As part of the Be Green carbon reductions, all new developments must achieve a minimum</p>	
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reduction of 20% from on-site renewable energy generation to comply with Policy SP4.

The application has reviewed the installation of various renewable technologies. The report concludes that solar photovoltaic (PV) panels are the most viable options to deliver the Be Green requirement. However, the application has proposed a deterioration with an increase of 2.3 tCO₂ (-2%) of emissions under Be Green measures. This is because the baseline model assumes a minimum capacity of solar PV to be delivered in this type of development, and this scheme therefore proposes less than the notional baseline model.

The proposed solar array peak would cover 90m² of roof space generating around 20kWp with 400Watt panels of 22.6% efficiency and 0.98 electric conversion factor.

Officers believe that further space could be found on the roof to generate electricity. It is not clear from the proposals whether all plant will have heat rejection, and whether more space could be found where there isn't. At a later design stage the design team might be able to increase the solar capacity when finalising the plant layout and capacity requirements.

Energy – Be Seen

London Plan Policy SI2 requests all developments to 'be seen', to monitor, verify and report on energy performance. The GLA requires all major development proposals to report on their modelled and measured operational energy performance. This will improve transparency on energy usage on sites, reduce the performance gap between modelled and measured energy use, and provide the applicant, building managers and occupants clarity on the performance of the building, equipment and renewable energy technologies.

The proposed metering strategy of the building by the report includes the following:

- Additional meter on the main resident's supply (or residents meter readings need to be collected and collated individually)
- Renewables are sub-metered for generation

- Special uses (such as electric vehicle charging) is sub-metered
- Individual bi-directional heat meters per dwelling
- Provide a visual energy display device to raise awareness and make users responsible for their energy consumption
- Meter and report landlord areas separately
- Commercial areas metered and reported separately
- Ensure OFGEM compliant meters
- Upload data to publicly accessible platform for five years.

Please ensure the planning stage energy performance data has been submitted to the GLA webform for this development:
<https://www.london.gov.uk/what-we-do/planning/implementing-london-plan/london-plan-guidance/be-seen-energy-monitoring-guidance/be-seen-planning-stage-webform>

3. Carbon Offset Contribution

A carbon shortfall of 68.9 tCO₂/year remains. The remaining carbon emissions will need to be offset at £95/tCO₂ over 30 years.

A deferred carbon offset contribution mechanism will apply to this scheme as it is expected to connect to the DEN when this has been built.

The applicant should present two carbon reduction table scenarios:

- Scenario 1: Connection to the DEN scenario (residual tCO₂ over 30 years)
- Scenario 2: Alternative Low Carbon Heating scenario (residual tCO₂ over 30 years)

Two carbon offset payments will be calculated. The carbon offset contribution for scenario 1 will be due at the commencement of development and the difference in the offset contribution between the first and second scenarios will be deferred for 10 years and indexed accordingly.

1. Payment for the residual emissions in the DEN scenario (Scenario 1) would be due at commencement of development.
2. A deferred carbon offset contribution is calculated through the difference in the offset contribution: Scenario 2 – Scenario 1 = Deferred Payment.

3. If, after 10 years the development has not connected to the DEN, the deferred payment (+indexation) is due.
4. If, after 10 years the development has connected to the DEN, the deferred payment would not be due but this amount would be available as a connection charge to the DEN.

	Carbon Offsetting Contribution (Alternative Heating Strategy scenario; tCO ₂)		Carbon Offsetting Contribution (Connection to DEN scenario; tCO ₂)	
	Residential	Non-residential	Residential	Non-residential
Baseline				
Total cumulative savings per annum (tCO ₂ , %)	(%)	(%)	(%)	(%)
Shortfall to offset	X1	Y1	X2	Y2
Carbon offset payment due for scenario	(X1+Y1) x 30 x £95 = £A		(X2+Y2) x 30 x £95 = £B	
Carbon Offsetting Contribution payment due at commencement of development			£B	
Deferred Carbon Offsetting Contribution (+indexation) payment due if not connecting to the DEN			£A - £B = £C	

4. Overheating

London Plan Policy SI4 requires developments to minimise adverse impacts on the urban heat island, reduce the potential for overheating and reduce reliance on air conditioning systems. Through careful design, layout, orientation, materials and incorporation of green infrastructure, designs must reduce overheating in line with the Cooling Hierarchy.

In accordance with the Energy Assessment Guidance, the applicant has undertaken a dynamic thermal modelling assessment in line with CIBSE TM59 with TM49 weather files, and the cooling hierarchy has been followed in the design. The report has modelled 5 habitable rooms, 3 spaces and 0 corridors under the London Weather files.

Due to the noise constraints of this site being adjacent to the railway line, the TM59 criteria for predominantly mechanically ventilated dwellings apply (assuming windows need to remain closed). The application has modelled both scenarios and the results are as follows:

Naturally ventilated scenario:

	TM59 – criterion A (<3% hours of overheating)	TM59 – criterion B (hours >26°C (pass <33 hours)	Number of spaces pass TM52	Number corridors
DSY1 2020s	8/8	5/5	3/3	
DSY2 2020s	8/8	5/5	3/3	
DSY3 2020s	8/8	5/5	2/3	
DSY1 2050s	Not modelled			
DSY1 2080s	Not modelled			

Mechanically ventilated scenario:

	TM59 – criterion A (<3% hours of overheating)	TM59 – criterion B (hours >26°C (pass <33 hours)	Number of spaces pass TM52	Number corridors
DSY1 2020s	2/8	0/5	2/3	

The report needs to model mechanically ventilated scenario and show how the introduction of mechanical ventilation and comfort cooling result in all units passing the 2020s DSY1 weather files. Further modelling should be done for 2020s DSY2, DSY 3, 2050s DSY1 and 2080s DSY1.

All rooms pass the overheating requirements for 2020s DSY1, DSY 2 and DSY3. In order to pass this, the following measures will be built:

- Natural ventilation, with openable areas of 80% and opening angle of 90°
- Glazing g-value of 0.3 to 0.5
- Internal blinds
- Shaded south-facing façade
- MVHR with summer bypass (XX l/s)
- No active cooling

The proposed Overheating Strategy is considered acceptable in principle, but further work must be undertaken at an early detailed design stage to reduce or mitigate the cooling demand entirely, undertake further modelling to understand the risk (weather files, unit typologies, communal spaces., etc), propose a retrofit plan, heat wave plan and demonstrate that all possible passive measures have been incorporated.

5. Sustainability

Policy DM21 of the Development Management Document requires developments to demonstrate sustainable design, layout and construction techniques. The sustainability section in the report sets out the proposed measures to improve the sustainability of the scheme, including transport, health and wellbeing, materials and waste, water consumption, flood risk and

drainage, biodiversity, climate resilience, energy and CO2 emissions and landscape design.

Non-Domestic BREEAM Requirement

Policy SP4 requires all new non-residential developments to achieve a BREEAM rating 'Very Good' (or equivalent), although developments should aim to achieve 'Excellent' where achievable.

The applicant has also prepared a BREEAM Pre-Assessment Report for the hotel use. Based on this report, a score of 85.7% is expected to be achieved, just equivalent to an 'Outstanding' rating but the applicant has noted that the 'Excellent' rating is attainable with some additional requirements. The 'Very Good' rating is targeted. It appears a potential score of 101.7% could be achieved.

This is an improvement on the original Pre-Assessment of achieving 'Very Good' with scores of 60%. Code for Sustainable Homes was also initially targeted, but this is no longer in force.

Urban Greening / Biodiversity

All development sites must incorporate urban greening within their fundamental design and submit an Urban Greening Factor Statement, in line with London Plan Policy G5. London Plan Policy G6 and Local Plan Policy DM21 require proposals to manage impacts on biodiversity and aim to secure a biodiversity net gain. Additional greening should be provided through high-quality, durable measures that contribute to London's biodiversity and mitigate the urban heat island impact. This should include tree planting, shrubs, hedges, living roofs, and urban food growing. Specifically, living roofs and walls are encouraged in the London Plan. Amongst other benefits, these will increase biodiversity and reduce surface water runoff. Living walls should be rooted in the ground with sufficient substrate depth.

Urban Greening Factor is 0.13, which is low and the team believe that further greening should be incorporated to reduce the urban heat island effect, improve visual amenity and biodiversity.

Action:

- Please provide the biodiversity net-gain calculation. It is recommended to use the Biodiversity Metric 4.0. The calculation tools and user guide for the biodiversity metric are published on Natural England's Access to Evidence website. The user guide describes how to gather the information needed for the metric calculations.

<https://nepubprod.appspot.com/publication/6049804846366720>

Climate Change Adaptation

Developments of this size should have a climate change adaptation strategy in place for residents and visitors to help the area become more resilient against the impacts of climate change. This should include adaptation to increased risk of flooding and wind-based impacts from more frequent and severe storm events, longer periods of drought (in relation to the soft landscaping and limiting occupant water use), more intense and longer heatwaves. The development should allocate publicly accessible 'cool spaces', following the [GLA's criteria for cool spaces](#) and to form part of the wider [cool spaces map](#).

Action:

- Identify in what ways the development will increase the resilience of residents and businesses and adapt their public realm to the impacts of climate change.

Whole Life-Cycle Carbon Assessments

Policy SI2 requires developments referable to the Mayor of London to submit a Whole Life-Cycle Carbon Assessment and demonstrate actions undertaken to reduce life-cycle emissions.

The total calculated emissions based on the GIA (without grid decarbonisation) is estimated at:

	Estimated carbon emissions	GLA benchmark (Hotel)	Embodied carbon rating (Industry)
Product & Construction Stages Modules A1-A5 (excl. sequestration)	824 kgCO ₂ e/m ²	Meets GLA benchmark (<850 kgCO ₂ e/m ²) but misses the aspirational target (<500 kgCO ₂ e/m ²).	Modules A1-A5 achieve a band of 'D-E', not meeting the LETI 2020 Target for office/residential categories
Use and End-Of-Life Stages Modules B-C (excl. B6 and B7)	349 kgCO ₂ e/m ²	Meets meet GLA target (<350 kgCO ₂ e/m ²) but misses the aspirational benchmark (<300 kgCO ₂ e/m ²).	
Modules A-C (excl. B6, B7 and incl. sequestration)	1,171 kgCO ₂ e/m ²	Meets GLA target (<1200 kgCO ₂ e/m ²) but misses the aspirational benchmark (<800 kgCO ₂ e/m ²).	Modules A1-E (incl. sequestration) achieve a letter rating of 'C-D', meeting the LETI Design Target for office/residential categories.
Use and End-Of-Life Stages Modules B6 and B7	1,316 kgCO ₂ e/m ²	N/A	
Reuse, Recovery, Recycling Stages Module D	-461 kgCO ₂ e/m ²	N/A	

The highest embodied carbon in Modules A1-A5 is attributed to the superstructure (39%) and façade (34%). In Modules B-C (excl B6 & B7) the highest contributors in embodied carbon are the services (35%), façade (33%) and finishes (23%). A number of areas have been identified to calculate more accurately and to reduce the embodied carbon of the buildings:

- Improve the façade and structural designs, with longer lasting, higher quality materials
- Reduction of concrete content and alternative cement option, depending on the supply chain
- Sourcing of reused steel (could be 134 tCO₂ of embodied carbon for roof and terrace)
- Equipment with longer lifespan
- Minimising cooling equipment
- Reduce leakage of refrigerant
- Specify a more efficient MEP kit; with reduction of pipework and ductwork lengths

Circular Economy

Policy S17 requires applications referable to the Mayor of London to submit a Circular Economy Statement demonstrating how it promotes a circular economy within the design and aim to be net zero waste. Haringey Policy SP6 requires developments to seek to minimise waste creation and increase recycling rates, address waste as a resource and requires major applications to submit Site Waste Management Plans.

The principles used for this development are:

- Designing for longevity, circa 50 years of building life, and 25 years of building structures life and disassembly at end of life
- Designing for flexibility and adaptable use spaces and will allow for a different building use through a modular design strategy
- Retaining existing substructure and plan to extend the existing foundation area
- Minimise operational waste and provide adequate space for recycling

The report sets out the Key Commitments (Table 3-1), Bill of materials (Table 3-2) and Recycling and waste reporting form (Table 3-3). This is a fairly high level of information, and the applicant expects this to become more detailed as the detailed design progresses following permission.

6. Planning Conditions

- Energy strategy
- Overheating
- BREEAM Certificate
- Living walls
- Circular Economy (Pre-Construction report, Post-Completion report)
- Whole-Life Carbon
- Biodiversity

7. Planning Obligations Heads of Terms

- Be Seen commitment to uploading energy data
- Energy Plan
- Sustainability Review
- Estimated carbon offset contribution (and associated obligations) of £196,365 (indicative), plus a 10% management fee; carbon offset contribution to be re-calculated at £2,850 per tCO₂ at the Energy Plan and Sustainability stages.
- Deferred offset contribution mechanism
- DEN connection (and associated obligations)
- Heating strategy fall-back option if not connecting to the DEN