O2 Masterplan Site, Finchley Road

Air Quality Positive Statement

Version 1, January 2022

Prepared for LS (Finchley Road) Limited by Hoare Lea

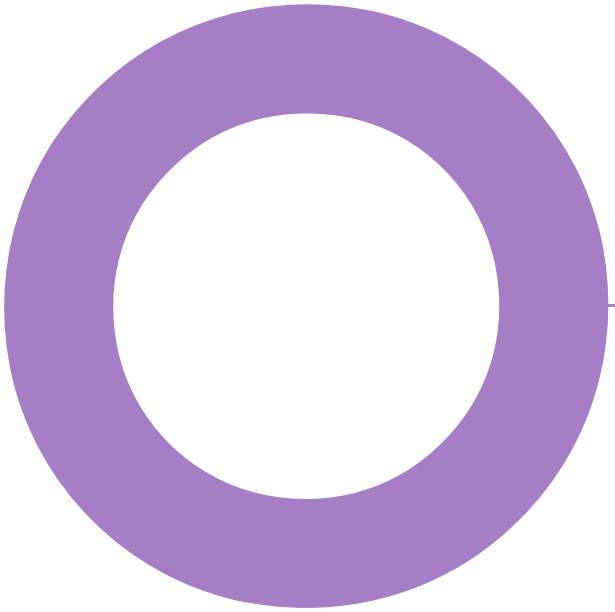
Landsec

HOARE LEA

O2 Masterplan Site.
Finchley Road.
LS (Finchley Road) Ltd.

AIR QUALITY
AIR QUALITY POSITIVE STATEMENT

REVISION 01 – JANUARY 2022



Audit sheet.

Rev.	Date	Description of change / purpose of issue	Prepared	Reviewed	Authorised
01	January 2022	Issue for planning	ED	AD	KW

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Contents.

Executive Summary

Hoare Lea have been commissioned by LS (Finchley Road) Limited (the 'Applicant') to provide an Air Quality Positive (AQP) to support an application made part in detail and part in outline (the 'Application') for the demolition and redevelopment of land encompassing the O2 Centre and associated car park, Homebase store, car showrooms and a Builder's Merchant within the London Borough of Camden (LBoC). The O2 Masterplan Site refers to the location of the masterplan scheme and is hereafter described as the 'Site'.

The new London Plan 2021 requires masterplans and development briefs for large-scale developments to take an AQP approach. The AQP approach maximises the benefits to local air quality in and around a development site or masterplan area and aims to minimise exposure to existing sources of poor air quality. It requires planners, designers, architects and air quality experts to show what measures have been taken during the design stages to achieve the best possible outcomes for air quality. This approach goes beyond compliance with both the Air Quality Neutral (AQN) benchmarks and the minimum requirements of an air quality assessment and sets out the measures taken to benefit local air quality and reduce exposure to poor air quality.

Part full and part outline planning permission comprising the following:

"Detailed planning permission for Development Plots N3-E, N4, and N5 including demolition of existing above ground structures and associated works, and for residential development (Class C3) and commercial, business and service (Class E) uses in Development Plot N3-E, residential development (Class C3) and local community (Class F2) and commercial, business and service (Class E) uses in Development Plot N4, and residential development (Use Class C3) and commercial, business and service uses (Class E) uses in Development Plot N5 together with all landscaping, public realm, cycle parking and disabled car parking, highway works and infrastructure within and associated with those Development Plots.

Outline planning permission for Development Plots N1, N2, N3, N6, N7 ,S1 and S8 including the demolition of all existing structures and redevelopment to include residential development (Class C3) commercial, business and service uses (Class E), sui generis leisure uses (including cinema and drinking establishments) together with all landscaping, public realm, cycle parking and disabled car parking, highway works and infrastructure within and associated with those Development Plots."

The Site is located within LBoC's borough-wide Air Quality Management Area (AQMA) declared for exceedances of the annual and annual mean nitrogen dioxide (NO_2), and the 24-hour PM_{10} air quality objectives (AQOs).

The main constraints to air quality at the Site are road traffic emissions produced from vehicles travelling on major roads in proximity to the Site.

Design opportunities considered throughout the design stage include the design of buildings, transport, public realm and green spaces, and land use.

The measures adopted can be divided into four key areas; better design and reducing exposure, building emissions, transport emissions and innovation and future proofing. Through an Implementation Monitoring Plan (IMP), it can be ensured that these measures are adopted.

It is considered that an AQP approach can be achieved for the Proposed Development and will continue to evolve with the continued design process.

1. Introduction

Hoare Lea have been commissioned by LS (Finchley Road) Ltd to produce an Air Quality Positive (AQP) statement to support an application made part in detail and part in outline (the 'Application') for the demolition and redevelopment of land encompassing the O2 Centre and associated car park, Homebase store, car showrooms and a Builder's Merchant within the London Borough of Camden (LBoC). The O2 Masterplan Site refers to the location of the masterplan scheme and is hereafter described as the 'Site'.

1.1 The Site

The Site is located in Finchley, within LBoC. It is bounded by Blackburn Road, which envelops the Site along its southern and northern edge, also extending to the west. Finchley Road (A41) bounds the Site to the east, with Billy Fury Way to the west. The Thameslink Bedford-Brighton railway line runs along the northern edge of the Site, and the London Underground Jubilee and Metropolitan lines run above ground along the southern edge of the Site. The construction phasing plan includes seven phases (1a, 1B 1C, 2A, 2B, 3A and 3B) over a proposed 15 year construction period.

1.2 Method

In order to ensure that an AQP approach has influenced the design process for the Proposed Development, the following work has been undertaken:

- Meetings with Arup (Project Transport Consultants) to discuss Transport and Air Quality;
- Meetings with Hoare Lea MEP (Project Engineers) to discuss the proposed energy and ventilation strategies.
- Workshops with Hoare Lea MEP, Arup, Plowman Craven (Project EIA coordinator), AHMM (Project Architect) and Buro Happold (Project Sustainability Consultant) to provide information on air quality constraints and opportunities to improve local air quality and promote improved air quality within the Site;
- Preliminary work including air quality chapter of the EIA scoping report has informed the final proposals; and
- Consultation of supporting technical documents (Air Quality ES chapter, Transport ES chapter, Transport Assessment, Design and Access Statement (DAS), Energy Strategy) found within the application pack.

2. Constraints and Opportunities

This section provides evidence of how the air quality context of the Site has informed the design process.

2.1 Site Description and Location.

The Site is located within LBoC's administrative area at the approximate National Grid Reference (NGR): X 525946, Y 184770.

The Site is bound by:

- West Hampstead Thameslink railway lines to the north;
- A41 (Finchley Road) to the east;
- Jubilee Line tube to the south; and
- B510 to the west.

Nearby off-site sensitive receptors include:

- Nido Montessori Nursery and residential properties to the north;
- South Hampstead Junior School, residential and commercial properties, and hotels to the east;
- Residential and commercial properties to the south; and
- Further residential and commercial properties to the west.

The Site is currently used for the O2 Centre and associated car park, Homebase store, car showrooms and a Builder's Merchant. A visual representation of the Site location is shown in Figure 1.

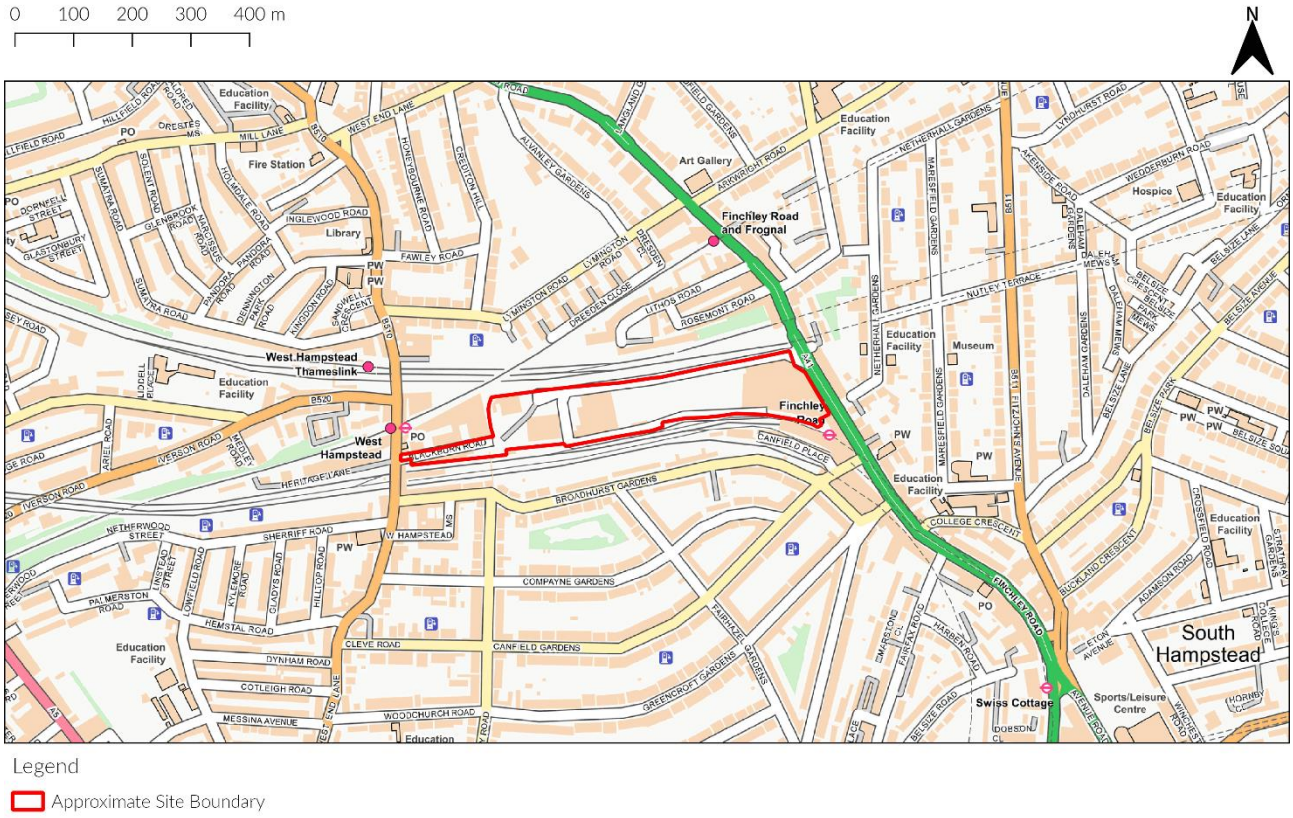


Figure 1: Location of the Site. Contains OS Data © Crown Copyright and Database rights 2022.

2.2 External Sources.

2.2.1 Existing Air Quality.

Figure 1 displays the Site boundary for the Proposed Development, which is situated within LBoC's administrative area. The Site is located within Camden Air Quality Management Area (AQMA), declared for exceedances of the annual mean nitrogen dioxide (NO_2) air quality objective (AQO) and the 24-hour PM_{10} AQO. This AQMA encompasses the whole borough, including the entirety of the Site.

Air quality focus areas (AQFAs) have also been identified in multiple locations across the borough. The Site is located partly within an AQFA (Swiss Cottage from South Hamstead to Finchley Road) and approximately 520 m to the east of a further AQFA (Kilburn Town Centre).

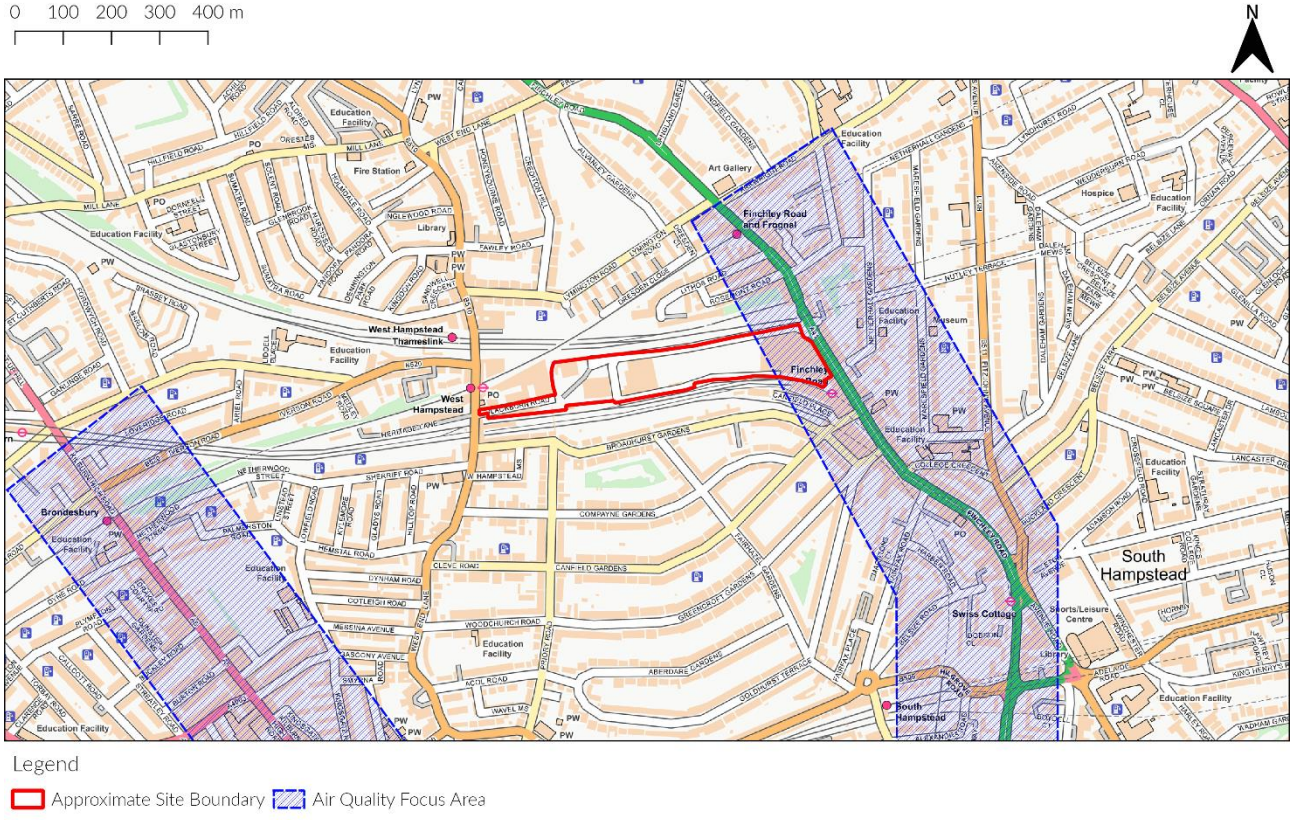


Figure 2: Location of Site with respect to local AQFAs. Contains OS Data © Crown Copyright and Database rights 2022.

2.2.2 Roads and Rail.

The closest major A-road to the Site is the A41, which bounds the Site to the east. This road is likely to have an impact on air quality at the Site due to the busy traffic flow of the road and its proximity to the Site.

The closest railway line is the West Hampstead Thameslink, which bounds the Site to the north, the Jubilee tube line which bounds the Site to the south, and the Overground service to the north west. These railway and tube lines are all electrified are therefore unlikely to have an impact on air quality at the Site.

2.2.3 Industrial Sources.

A desk-based review of potential industrial sources using the UK Pollutant Release and Transfer Register[1] and the Pollution Inventory from the Environment Agency[2] did not identify any significant industrial or waste management sources of air pollution that are likely to affect the Site with regard to air quality.

2.3 Design Stage Opportunities.

A key element to achieving an AQP compliant development is using the design and layout of a development or plan area to improve the dispersion of air pollution. The design of a development should promote or create better air quality and reduce exposure to pollution in the public and private realm.

An air quality workshop was held 4th March 2021 to discuss the air quality constraints of the Proposed Development and opportunities to promote improved air quality across the Site, within the Site and in the vicinity of the Site. This meeting addressed targeting world health organisation guidelines for particulate matter concentrations at the Site.

2.3.1 Buildings.

The layout of buildings within the Site has been considered to encourage the dispersion of pollutants within the Site by promoting air flow between buildings. In order to improve air flow within the Site boundary, blocks have been spaced out and ground level openings have been included within the Finchley Road façade design. Prevailing wind (based on Heathrow Airport Meteorological site) is predominantly south west which is the opposite direction to Finchley Road. (See upper ground floor plans 19066_X_(00)_101, for other floors 19066_X_(00)_1XX).

2.3.1.1 Building Emissions.

Building emissions primarily arise from heat demand. The policy framework for energy infrastructure is set out in London Plan[3] (Policy SI 3). To achieve AQP, the Proposed Development for which an energy masterplan is in place, seeks to eliminate energy centre emissions.

The energy strategy does not include combustion-based heat and is proposed to be all-electric. Therefore, the impacts of energy provision on local air quality will be negligible. Further to this, any existing plant that is currently operational under the existing uses will be removed and replaced with electrically driven plant (see Energy Strategy).

2.3.2 Transport Modes and Connectivity.

The design of highway and public realm, site layout, parking and entrances and transport links can both have an impact on emission sources from transport and provide an opportunity to deliver a modal shift toward sustainable transport, which is necessary to deliver AQP outcomes. Safe and convenient access by walking and cycling has been prioritised, and the provision of smarter delivery practises and electric vehicle charging infrastructure has been considered throughout the design stage. Further to this, the Site is well served by public transport with, bus routes, train stations and tube stations nearby.

The Proposed Development adopts the Healthy Streets Approach and has considered both the location and function of highway space at an early stage, prioritising strategies that enhance access and connectivity for

[1] Defra (2014) UK Pollutant Release and Transfer Register – [online], (Last accessed: 21/12/2021), Available at: www.gov.uk/guidance/uk-pollutant-release-and-transfer-register-prtr-data-sets

[2] Environment Agency (2020) Pollution Inventory – [online], (Last accessed: 21/12/2021), Available at: data.gov.uk/dataset/cfd94301-a2f2-48a2-9915-e477ca6d8b7e/pollution-inventory

[3] The London Plan (2021) – [online], (Last accessed: 21/12/2021), Available at: https://www.london.gov.uk/sites/default/files/the_london_plan_2021.pdf

sustainable modes of transport. For further information on the Healthy Streets approach, consultation of Sections 1.6, 3 and 6, within the Transport Assessment is recommended.

The Site is car-free with the exception of blue badge holder and servicing. As there is limited on-site parking, other modes of transport have been promoted including active transport such as walking and cycling by providing safe walking routes and cycle parking. Public transport is also promoted with an on-site bus stop and nearby rail and tube stations.

For further information, on transport provision and improved connectivity of the Site, consultation of Section 3 within the Transport Assessment is recommended.

2.3.2.1 Transport Emissions.

The Proposed Development has the potential to positively influence travel behaviour in the surrounding area. The character, connectivity of the area, and the existing and proposed land uses, and how these affect travel patterns have been considered.

The Proposed Development removes a large amount of existing parking and only provides blue badge parking spaces on the Site. This largely reduces the number of road trips generated by the Proposed Development and therefore reduces the emissions generated by the Proposed Development compared to the existing Site. As provided by Arup, there is anticipated to be a reduction of 2,357 annual average daily traffic (AADT) as a result of the Proposed Development, compared to the existing site. Further details on Transport can be found in the Transport ES chapter, Chapter 8), the Transport Assessment, and the Framework Travel Plan.

2.3.3 Public Realm and Green Spaces.

To reduce exposure to air pollution, outdoor areas such as green areas and public realm will be located in areas where there are already low pollutant concentrations i.e. away from Finchley Road and West End Lane. Well considered use of green infrastructure is an important part of AQP proposals and has been considered in line with the Using Green Infrastructure to Protect People from Air Pollution guidance[4]. This includes the presence of green infrastructure to the south of the Site between the railway lines and the Site. See development plans (19066_X_(00)_1XX) and the DAS.

2.3.4 Land Uses.

The layout of land uses in relation to one another has been an important consideration during the design stage. Potential off-site sources of emissions include roads and railways, as well as direct emissions from the heating and energy systems of nearby buildings. The location of these elements within or near to the Site can have a significant impact on the dispersion or accumulation of pollutants.

Due to the potential for high NO_2 concentrations from road traffic emissions on Finchley Road it was recommended that residential dwellings not be located at ground level within Block N1A which fronts Finchley Road. Instead, this space is being used for commercial use. See development plans (19066_X_(00)_1XX) and the DAS.

[4]Using Green Infrastructure to Protect People from Air Pollution (2019) – [online], (Last accessed: 21/12/2021), Available at: https://www.london.gov.uk/sites/default/files/green_infrastruture_air_pollution_may_19.pdf

3. Measures Adopted.

Based on the air quality constraints and opportunities at the Site, a range of measures have been adopted for the Proposed Development . This range of measures and the reasons for adoption have been summarised in Table 1 below. For further detail on the adopted measures, consultation of the Air Quality (chapter 7) and Transport (chapter 8) ES chapters within the Environmental Statement, the Transport Assessment, the Framework Travel Plan, the DAS, and the Energy Strategy, is recommended. These documents can be found within the planning submission and a full list of technical evaluations and assessments that have informed the measures adopted, has been included in the Glossary of Consultation Documents.

Table 1: Measures adopted as part of the Air Quality Positive Approach.

Measure	Summary of the Measure	Reason for Undertaking Measure	Expected Benefits	Assessment and Reporting			How will this measure be secured?
				Methods	Quantitative	Qualitative	
Better Design and Reducing Exposure							
Mechanical ventilation providing air intake filtration.	Mechanical ventilation with ISO $Epm_{2.5}$ filtration of over 50% at all air intakes.	To reduce internal building $PM_{2.5}$ concentrations to below the WHO guideline.	Reduced levels of $PM_{2.5}$ lead to improved health outcomes for users of the building.				Inclusion within the DAS
Block N1A ground floor free from residential dwellings.	The ground floor of the development will not include any dwellings.	NO_2 concentrations decrease with distance from sources of emissions.	Inhabitants will be exposed to less NO_2 produced by road traffic.				Inclusion within the design, see masterplan drawings.
EIA	A chapter regarding air quality has been included within the EIA.	Consideration of air quality from an early stage in the design process.	Measures to improve air quality and mitigate air pollution can be implemented successfully.				See Air Quality ES Chapter (7).
Targeting of the WHO guidelines.	Adherence to the WHO guidelines during assessment of air quality.	The WHO guidelines are more stringent than the AQOs.	Reduced exposure to health-harming air pollutants (particulates).				See Air Quality ES Chapter (7).
Construction Environmental Management Plan (CEMP).	Control of dust and PM emissions during the construction phase.	Dust and PM are harmful to human health.	Reduced emissions of dust and PM during construction.	Site logging during construction /demolition phase	N/A	Yes	Via planning condition to include an air quality dust management

Measure	Summary of the Measure	Reason for Undertaking Measure	Expected Benefits	Assessment and Reporting			How will this measure be secured?
				Methods	Quantitative	Qualitative	
							plan within the CEMP.
Green Infrastructure	On-site provision of open green space has been included as an integral part of the development.	Contributes to screening of dust emissions from the nearby railway lines.	Reduced exposure to health-harming air pollutants (particulates).				Inclusion within the design, see masterplan drawings.
Consideration of national, regional and local policy.	Compliance with all relevant policies to air quality has been ensured.	Minimise risk of negative impacts to air quality.	Reduced exposure to health-harming air pollutants.				See Air Quality ES Chapter (7).
Building Emissions							
All-electric energy.	The energy provision will be all-electric and will not include any sources of combustion.	All-electric energy is less polluting to the air.	Reduced emission of health-harming pollutants.				Inclusion within the design as part of the energy strategy.
Transport Emissions							
Reduced car parking.	The Site will be car-free with the exception of blue badge holders.	Reduced car transport to/from the Site and increased use of public transport, cycling and walking.	Reduced road traffic emissions generated by the development.				Inclusion within the design, see masterplan drawings. See Transport ES Chapter (8). See Transport Assessment.
Implementation of Framework Travel Plan	Promotion of active and public transport	Reduced car transport to/from the Site and increased use of public transport, cycling and walking.	Reduced road traffic emissions generated by the development.				See Framework Travel Plan. See Transport Assessment.

Measure	Summary of the Measure	Reason for Undertaking Measure	Expected Benefits	Assessment and Reporting			How will this measure be secured?
				Methods	Quantitative	Qualitative	
Provision of electric vehicle charging points	20% of spaces will have an Electric Vehicle Charging Point from the outset, with all remaining spaces having passive provision for future use	Electric vehicle use is less polluting to the air than petrol or diesel run vehicles.	Reduced road traffic emissions generated by the development.				See Transport Assessment.
Innovation and Future Proofing							
Openable windows	As air quality improves in central London, natural ventilation may be targeted in the future.	Reduced reliance on mechanical ventilation systems.	Reduction of energy required to ventilate the building.	On site air quality monitoring	Yes	N/A	Inclusion within the DAS

*See the Air Quality Dust Management Plan (AQDMP) for further measures relating to the construction phase of development.

Table 1 shows the measures that have been adopted as part of the air quality positive approach for the Proposed Development. The exposure of inhabitants and users of the Proposed Development to poor air quality will be reduced by these measures as well as other receptors in the vicinity of the Site, helping to improve health outcomes and life quality.

Key contributions to reduced emissions from the Proposed Development and improving local air quality are via the removal of on site parking leading to a reduction of 2,357 AADT compared to the existing site and the inclusion of an all-electric energy strategy.

Air quality has considerations have informed the design of the Proposed Development from an early stage. As such, the above measures have been considered for implementation to deliver benefits to air quality and/or reduction in exposure to air pollution throughout the design stage.

In some areas, measures have not been implemented where they could reasonably be expected to. However, there is rationale behind the decision not to adopt these measures and this is summarised in Table 2 below.

Table 2: Measures not implemented in the Air Quality Positive Approach.

Measure	Rationale for not adopting this measure
Transport Emissions	
Redirection of bus route.	Greater London Authority (GLA) would like to keep the existing bus route using Blackburn Road.

Measure	Rationale for not adopting this measure
Innovation and Future Proofing	
On site monitoring of PM concentrations.	In order to gather site specific data, on site monitoring could be undertaken however this has not been implemented as there is representative nearby monitoring for more worse case conditions at Swiss Cottage automatic monitoring station.

Table 2 shows the measures that have not been implemented in this air quality positive approach and the reasons for this. The measures above have the potential to be implemented in the future and should therefore be considered throughout the planning, construction, and operation of the Proposed Development to assess whether they could be implemented at a later stage.

4. Implementation and Monitoring.

Consultation with the LBoC (including the environmental health team), the GLA and Transport for London (TfL) has been carried out to inform the AQP approach. The TfL and GLA have been supportive in pre-application meetings regarding the Site being car-free with exception of blue badge holders. The Transport Assessment provides details of the meetings and consultations which have taken place with TfL to discuss and agree on the scope of the Transport Assessment, scope of the Active Travel Zone review, assessment scenarios, trip generation methodology and requirements for local junction modelling.

Details of air quality consultations with LBoC have been included in Appendix 1 for reference. Details of correspondence between the Transport Consultants, LBoC and TfL are included in Appendix A of the Transport Assessment.

These have been used to produce an Implementation Monitoring Plan (IMP). An IMP must include the following:

- The measures to be secured and implemented at the detailed design and application stage;
- An outline of tangible, specific and measurable targets and commitments;
- The frequency that these measures will be monitored and reported on; and
- The monitoring and reporting requirements that will ensure that the measures are implemented as stated.

The IMP for the Proposed Development is shown below in Table 3. For further detail on the adopted measures, consultation of the Air Quality and Transport ES Chapters (7 & 8), Transport Assessment, Framework Travel Plan, Energy Strategy, Masterplan Drawings and DAS is recommended. These documents can be found within the planning submission and a full list of technical evaluations and assessments that have informed the measures adopted, has been included in the Glossary of Consultation Documents.

Table 3: Implementation Monitoring Plan.

Measure	Details of implementation
Better Design and Reducing Exposure	
Mechanical ventilation providing air intake filtration.	Inclusion within the design as part of the DAS.
Block N1A ground floor free from residential dwellings.	Inclusion within the design, see masterplan drawings.
Targeting of the WHO guidelines.	See Air Quality ES Chapter (7)
Construction Environmental Management Plan (CEMP).	Via planning condition to include an air quality dust management plan within the CEMP.
Green Infrastructure	Inclusion within the design, see masterplan drawings.
Consideration of national, regional and local policy.	See Air Quality ES Chapter (7)
Building Emissions	
All-electric energy strategy.	Inclusion within the design as part of the energy strategy

Measure	Details of implementation
Transport Emissions	
Reduced car parking.	See Transport ES Chapter (8). See Transport Assessment.
Provision of Blue Badge Spaces Only	Inclusion within the design, see masterplan drawings.
Implementation of Framework Travel Plan	See Framework Travel Plan.
Provision of electric vehicle charging points	See Transport Assessment.
Innovation and Future Proofing	
Openable windows	Inclusion within the design as part of the DAS.

5. Summary and Conclusions.

This statement details the AQP approach to be undertaken in association with the construction and operation of the Proposed Development within LBoC administrative area.

The AQP approach has identified that:

- The main constraints to air quality at the Site are road traffic emissions produced from vehicles travelling on major roads in proximity to the Site. Although road traffic is outside of the Applicant's control, by removing the considerable quantum of surface car parking on Site there will be reduced vehicle borne traffic coming to the Site;
- Design opportunities considered throughout the design stage include the design of buildings, transport, public realm and green spaces, and land use;
- Measures will be adopted under the four key areas (better design and reducing exposure, building emissions and transport emissions, innovation and future proofing); and
- An IMP will ensure that the measures agreed are upheld and adhered to.

Based on the information above, it is considered that an AQP approach can be achieved. AQP should not be viewed as a constraint to planning and the Proposed Development conforms to the principles of the London Plan Guidance.

6. Glossary of Terms.

AQDMP	Air Quality Dust Management Plan
AQFA	Air Quality Focus Area
AQMA	Air Quality Management Area
AQO	Air Quality Objective
Defra	Department for Environment, Food and Rural Affairs
EIA	Environmental Impact Assessment
EPUK	Environmental Protection UK
GLA	Greater London Authority
IAQM	Institute of Air Quality Management
IMP	Implementation Monitoring Plan
LBoC	London Borough of Camden
µg/m^3	Micrograms per cubic metre
NO_2	Nitrogen dioxide
PM_{10}	Particulate matter with an aerodynamic diameter less than 10 micrometres
$PM_{2.5}$	Particulate matter with an aerodynamic diameter less than 2.5 micrometres
TfL	Transport for London
WHO	World Health Organisation

7. Glossary of Consultation Documents.

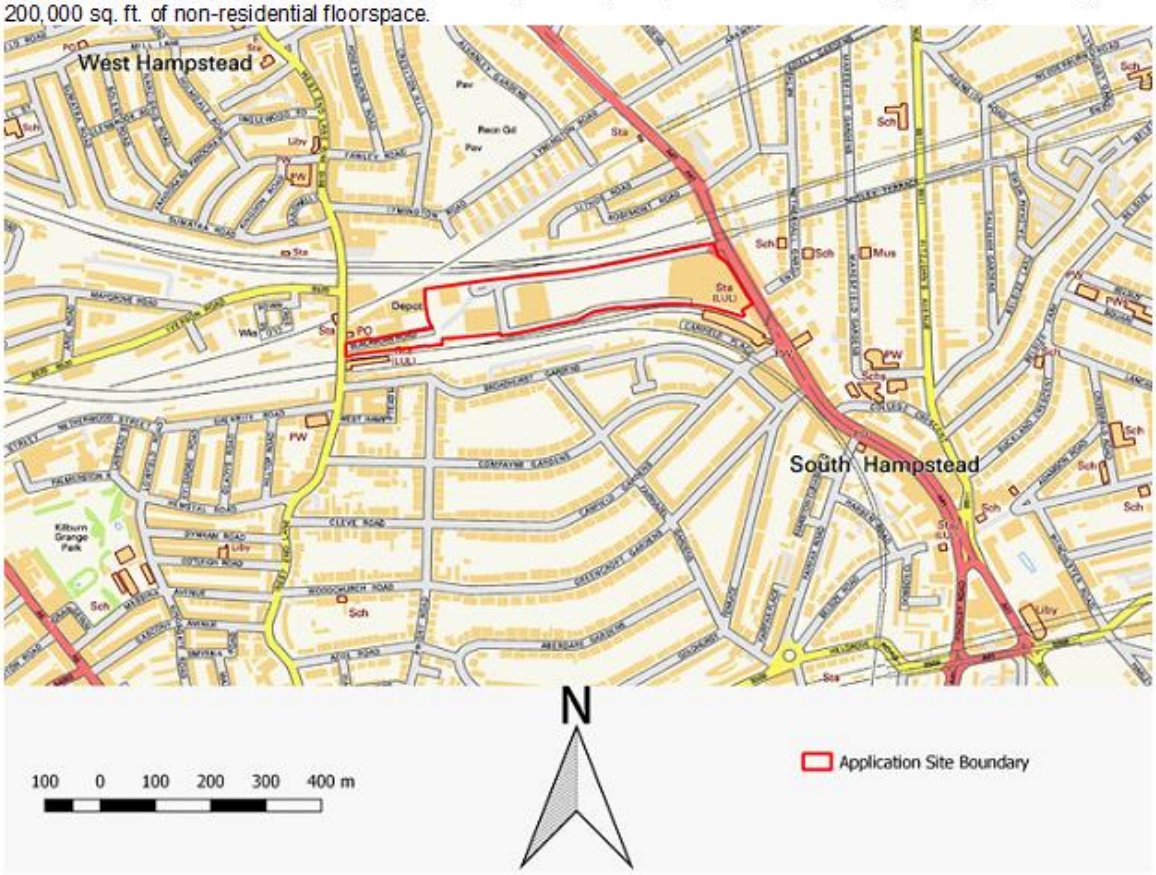
Air Quality Chapter of Environmental Statement	[Chapter 7 O2 Finchley Road Environmental Statement] produced by Hoare Lea.
Transport Chapter of Environmental Statement	[Chapter 8 O2 Finchley Road Environmental Statement] produced by Arup.
Transport Assessment	[Transport Assessment] produced by Arup
Framework Travel Plan	[Framework Travel Plan] produced by Arup
Energy Strategy	[Energy Strategy] produced by Hoare Lea.
Design and Access Statement	[Design and Access Statement] produced by AHMM.
Masterplan Drawings	[Drawings found within the Planning Submission Pack] produced by AHMM.

Appendix 1 - Third Party Consultations.

From: Andy Day
Sent: 07 October 2021 15:55
To: Gabriel.Berry-Khan@camden.gov.uk
Cc: Tom.Parkes@camden.gov.uk
Subject: O2 Finchley EHO Email

Hi Gabriel,

Hoare Lea have been instructed to prepare an air quality ES chapter as part of the EIA for a mixed-use residential led development off Finchley Road, Camden. See below site boundary for reference. The proposals include the comprehensive redevelopment of the O2 Centre, Homebase, current car park and warehouse units currently occupying the Application Site. The proposals are to provide up to 2,000 residential dwellings and approximately 200,000 sq. ft. of non-residential floorspace.



Hoare Lea propose to undertake the assessment using the following methodology:

- A baseline assessment will be undertaken using data from the London Borough of Camden's most recent Annual Status Report (July 2021). Albeit data for 2020 will not be used as it is not considered to be representative due to reduced traffic levels during the pandemic.
- Defra's background pollution maps will be used to establish background concentrations in the area and the LAEI modelling will be used to understand local air quality.
- It is expected that the vehicle movements associated with the construction phase will result in an exceedance of the EPUK and IAQM guidance of 25 AADT HDV. Therefore a detailed assessment of the impacts of the additional traffic during the construction phase will be undertaken on road links that exceed the criteria. It is anticipated that a worst case construction year will be modelled and any impacts from later phases that may affect onsite receptors from early phases will be considered where appropriate.

- The Proposed Development will be 'car free' with parking provision for disabled residents only (5% of properties will be allocated a disabled space), resulting in a significant net reduction in vehicle trips when compared to the existing uses. The Application Site is currently used for the O2 Centre, Homebase and associated car parking. As such, an assessment of the impacts of emissions associated with operational phase vehicle trips has been scoped out in line with the EPUK and IAQM guidance 'Land-Use Planning & Development Control: Planning for Air Quality' January 2017.
- As the Proposed Development will provide residential space, a Site Suitability Assessment will be undertaken using ADMS Roads detailed dispersion modelling software to predict concentrations of NO_2, PM_{10} and $PM_{2.5}$ at worst case sensitive receptors locations across the Application Site.
- Local monitoring data shows a statistically significant reduction in NO_2 concentrations in the period 2015-2019 and therefore it is proposed to use a mid-year (2026) for future year emissions in the expected opening year (2033). As there is uncertainty in predicted future emissions a sensitivity assessment will be presented in the chapter appendices which assumes road traffic emissions will remain the same as the verification year (2019).
- Heathrow Airport 2019 will be used as the meteorological site.
- Defra predicted background concentrations for 2019 will be used. We propose to verify the dispersion model at the following LBoC monitoring locations:
    - CD1 (automatic)
    - CA17
    - CA25A
- The energy strategy for the Proposed Development will comprise an all-electric approach for space and hot water heating with no on-site combustion plant. As such, no further assessment is required in line with the EPUK and IAQM document 'Land-Use Planning & Development Control: Planning for Air Quality' January 2017.
- The assessment of impacts from dust soiling during the construction phase of the development, will be included in the chapter appendices as it is expected that suitable mitigation measures will be included in the CEMP and any effects will not be significant.
- The assessment will be undertaken in line with the EPUK and IAQM document 'Land-Use Planning & Development Control: Planning for Air Quality' January 2017.
- The significance of effects will be determined in line with the EPUK and IAQM guidance and appropriate mitigation will be identified where necessary.
- There are no ecological sites within 50m of a road link within our assessment. In addition, the vehicle trips generated by the Proposed Development is less than 1000 AADT and therefore a detailed assessment of the impact of road traffic emissions on the SSSI will not be undertaken in line with the DMRB Part 1 HA207/07 Air Quality guidance.
- Cumulative impacts from nearby committed development will be considered as part of the assessment.

I would be grateful if you could please confirm your acceptance of the proposed methodology and provide me with any comments you may have.

Many thanks,

Andy Day
Senior Air Quality Consultant

DDI +44 20 3668 7289
Tel +44 20 3668 7100
Mob +44 7384 548 115
Email andyday@hoarelea.com

Appendix 2 - Professional Experience.

Andy Day (Hoare Lea), BSc (Hons), MSc, AMIEnvSc, AMIAQM

Andy is a Senior Air Quality Consultant with Hoare Lea. He is an Associate Member of the Institute of Environmental Sciences and an Associate Member of the Institute of Air Quality Management. He is a chemistry graduate with a Master's specialising in the catalysed removal of harmful volatile organic compounds (VOCs) often generated from the combustion of fuel in car engines.

Andy has worked on a range of projects of varying size across a number of different sectors. His experience focusses on work up to and through planning for air quality assessments and environmental impact assessments. Andy also has experience in detailed dispersion modelling of road traffic and energy combustion plant, emission mitigation statements, damage cost calculations, indoor and outdoor air quality monitoring and assessing the air quality impact at ecologically sensitive sites.

Andy has a particular interest in reducing emissions for the benefit of human health and the environment through the life cycle of a building.

Kathryn Woolley (Hoare Lea), BSc (Hons), AMIEnvSc, MIAQM

Kathryn is an Associate of the Air Quality team with Hoare Lea. She's is an Associate Member of the Institution of Environmental Sciences and a Full Member of the Institute of Air Quality Management.

She has a diverse portfolio of experience and has worked on a range of projects from initial site feasibility, through planning and development to construction and operation. Kathryn's expertise covers planning, and air quality, specifically in relation to residential developments, industrial fixed installations such as district heating networks. Kathryn has completed over 50 EIA in the past 8 years throughout the UK and abroad including; St Johns Masterplan in Manchester (residential led), Leicester City Football club training facility north of Leister (sports use), 1-5 Grosvenor Place, Westminster (mixed use residential, retail and hotel site), and Chestnut Avenue in Eastleigh (residential and community use).

Ellie Drage (Hoare Lea), MEarthSci, AMIEnvSc, AMIAQM

Ellie is a Graduate Air Quality Consultant with Hoare Lea. She graduated from the University of Oxford with an Earth Sciences degree focusing on Climate and Ocean Systems. Ellie's MEarthSci project involved reconstructing ocean circulation, climate, and the carbon cycle approximately 100 million years ago, to better understand Earth's past environment.

Ellie has worked on a range of projects across various sectors such as residential, industrial and office. She has undertaken outdoor air quality monitoring, and has experience preparing air quality screening assessments for planning and indoor air quality plans for BREEAM. Ellie's interests lie in the mitigation of pollution and air quality control.

HOARE LEA

KATHRYN WOOLLEY
ASSOCIATE

+44 20 3668 7233
kathrynwoolley@hoarelea.com

HOARELEA.COM

Western Transit Shed
12-13 Stable Street
London
N1C 4AB
England