Barrie House, 29 St Edmunds Terrace, London

Air Quality Assessment Addendum

Kaleminster Ltd

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1.0

Introduction

1.0 Introduction

The proposed Barrie House development is located on a residential road at Barrie House, 29 St. Edmunds Terrace, London, NW8 7QH. Since a planning application was made in 2018 (Ref: 2018/0645/P), there have been updates to the proposed design. There has also been updates to air quality relevant legislation, policy, and guidance. There is therefore a requirement to provide an update to the Air Quality Assessment to support the new planning application.

An Air Quality Assessment was provided in 2018[1] which reviewed air quality at the Proposed Development. Monitoring results from the London borough of Camden indicated that concentrations of NO_2 and PM_{10} were likely to be below the annual and short-term objectives at the Site. An air quality neutral assessment concluded that the Proposed Development will be neutral in terms of building and transport emissions.

This addendum provides updates to relevant legislation, planning policies and guidance, as well as listing relevant documents that were not referred to in the 2018 report. This addendum also refers to the Proposed Development design, reports updated baseline data, and considers whether the 2018 conclusions are still relevant in the light of this updated information.

1.1 Site Setting

The Site is 1.3km west of Camden Town. Regent's Park lies approximately 170m south of the site and 25m north of the site lies Primrose Hill Park. The street is surrounded by existing residential developments. The nearest station is St. John's Wood station, which is 790m west of the site.

Since the 2018 Air Quality Assessment, there has been the introduction of the London Ultra Low Emission Zone (ULEZ).

[1] Cundall (2018) Barrie House, 29 St Edmunds Terrace, London, Air Quality Assessment, Ref: 1016484, Rev A,, 9th February 2018

2.0

Design

2.0 Design

The proposed development comprises the extension of the existing Barrie House development to provide 9 new residential units over a 4 to 5-storey development (including basement), with a total net internal area of approximately 720m^2. The detailed scheme description for the updated design is as follows:

> "*Redevelopment of existing two-storey porter's lodge and surface level car park to construct a part four, part five storey extension (lower ground, ground and 3/4 storey's) to Barrie House including excavation of a basement level, to provide 9 self-contained residential flats (1 x 1 bed, 6 x 2 bed and 2 x 3 bed units), cycle parking, refuse and recycling stores, hard and soft landscaping and relocated off-street car parking spaces*".

A Design Stage Sustainability Statement[2] has been produced by Eight Versa in 2022 and refers to the updated design with respect to energy design. Since the 2018 assessment, retention of on-site gas boilers is no longer proposed. Due to grid decarbonisation, the design team has decided to omit the gas boiler and specify air source heat pumps (ASHPs). There will therefore no longer be any on-site combustion plant.

A Transport Assessment was produced by Mayer Brown in 2017[3]. The development is to be supported by a site-specific travel plan which will set out the transport strategy for the development. The travel plan is to include the provision of 30 cycle storage spaces. There will also be 10 car parking spaces to be provided for the development, with present a net neutral change compared to the existing provision of 10 spaces. The trip generation assessment states:

"*The additional residential units are likely to generate around 1-3 person movements during the weekday morning peak, and around 21 movements across the entire day with the majority of trips completed via public transport and on foot"*

[2] Eight Versa (2022) Design Stage Sustainability Statement, 29 St. Edmunds Terrace, 18/10/2022
[3] Mayer Brown (2017) Kaleminster Ltd, Barrie house, 29 St Edmunds Terrace, Camden, Transport Statement, Ref:MWAStEdmundsTerrace.1, 14th December 2017

3.0

Legislative and Policy Context

3.0 Legislative and Policy Context

The details provided within the 2018 Air Quality Assessment remain relevant apart from the following updates and additional relevant policies and guidance documents that weren't listed in the 2018 report:

3.1 Legislation

The following additional legislative documents listed in Table 3-1, which were not referred to in the 2018 report, are of relevance to air quality.

Table 3-1: Legislation relevant to air quality

Legislation	Description
Clean Air Strategy 2019[4]	Defra published a Clean Air Strategy in January 2019, setting out a wide range of actions for UK Government to reduce pollutant emissions and improve air quality. The actions are grouped into four main emission sources: Transport, Domestic, Farming and Industry The Clean Air Strategy sets out the case for action and demonstrates the government's determination to improve air quality. In some cases, the goals are even more ambitious than EU requirements to reduce people's exposure to toxic pollutants like nitrogen oxides, ammonia, particulate matter, non-methane volatile organic compounds and sulphur dioxide.
Environment Act 1995, Part IV[5], amended by the Environment Act 2021.	Defines the requirements for Local Air Quality Management (LAQM).
Environment Protection Act 1990, amended by the Pollution Prevention and Control Act 1999[6] and the Environment Act 2021.	Part III provides statutory nuisance provisions for nuisance dust. Nuisance complaints about dust would need to be investigated by the Local Authority. In practice, dust deposition is generally managed appropriately by suitable on-site practices and mitigation, avoiding the determination of statutory nuisance and/or prosecution or enforcement notices.
The Non-Road Mobile Machinery (Type-Approval and Emission of Gaseous and Particulate Pollutants) Regulations 2018[7]	Developers and contractors are required to meet compliance with the emission standards for Non-Road Mobile Machinery (NRMM). The Regulations exercise of the powers conferred by section 2(2) of, and paragraph 1A of Schedule 2 to, the European Communities Act 1972 in relation to the type, description, construction or equipment of vehicles.
Environment Act, 2021[8].	The Act makes provision about targets, plans and policies with the focus of improving the natural environment. This includes air quality, as well as water, nature and biodiversity, regulation of chemicals, waste and resource efficiency and recall of products failing to meet environmental standards. The Act introduces a duty on government to bring forward at least two air quality targets by October 2022 for consultation. These are to be to reduce the annual average level of fine particulate matter ($PM_{2.5}$) and to set a long-term (minimum of 15 year) target for its reduction. The 2021 Act amends the Environment Act 1995 Part IV by seeking to strength local air quality a management (LAQM) through greater cooperation at local level and broadening the range of organisations that play a role in improving air quality. Responsibility for tackling air pollution is to be shared between designated local authorities, all tiers of local government and neighbouring authorities. The environment

[4] Department for Environment Food and Rural Affairs (Defra) (2019) Clean Air Strategy 2019 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/770715/clean-air-strategy-2019.pdf
[5] Environment Act 1995, Chapter 25, Part IV Air Quality
[6] Environmental Protection Act 1990, Chapter 43, Part III Statutory Nuisances and Clean Air https://www.legislation.gov.uk/ukpga/1990/43/part/III
[7] HMSO (2018) The Non-Road Mobile Machinery Type-Approval and Emission of Gaseous and Particulate Pollutants) Regulations 2018, UK Statutory Instruments, 2018 No.764, https://www.legislation.gov.uk/uksi/2018/764/made
[8] HMSO (2021) Environment Act 2021, November 2021, https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted

Legislation	Description
	secretary will be required to review the Air Quality Strategy at least every five years and publish annual progress reports to parliament. The 2021 Act amends the Clean Air Act 1993 to give local authorities more power to reduce pollution in smoke control areas by replacing the criminal offence of emitting smoke from a chimney in a smoke control area with a civil penalty regime, seeking to enable simpler, quicker and more proportionate enforcement at local level. It also amends the Environmental Protection Act 1990 by extending the system of statutory nuisance to private dwellings in smoke control areas, which could result in abatement notice and issuing fines for criminal offence of breaches. The 2021 Act introduces new powers for the government to compel vehicle manufacturers to recall vehicles and non-road machinery that fails to meet legal binding standards.
Environmental Improvement Plan, 2023[9]	The Environmental Improvement Plan (EIP23) highlights that air quality continues to be the biggest environmental risk to human health and a source of harm to the natural environment. The document makes provision about targets and plans with the focus of improving the environmental quality. This includes reducing emissions in the home, driving effective local action through local authorities, maintaining and improving regulatory framework for industrial emissions, supporting farmers to cut the impact of agriculture on air quality and reducing emissions from cars and other forms of transport. Ten environmental goals were set in the 25 Year Environmental Plan. The second goal is clean air and the EIP23 seeks to address this further through the following targets and commitments: ▪ In 2040 reduce population exposure of fine particulate matter ($PM_{2.5}$) by 35% compared to 2018 levels (with an interim target of a 22% reduction by January 2028) ▪ Work towards meeting compliance with a 40µg/m^3 limit for nitrogen dioxide (NO_2) ▪ Maximum annual mean 10µg/m^3 for $PM_{2.5}$ (with an interim target of 12µg/m^3 by January 2028) ▪ Legal emission reduction targets for five damaging pollutants by 2030 relative to 2005 levels: o Reduce emissions of nitrogen oxides by 73%. o Reduce emissions of sulphur dioxide by 88%. o Reduce emission of ($PM_{2.5}$) by 46%. o Reduce emissions of ammonia by 16%. o Reduce emissions of non-methane volatile organic compounds by 39%. Progress towards delivering the EIP23 will be monitored through Annual Progress Reports and the Outcome Indicator Framework. This framework contains 66 indicators, six which are relevant to clean air.

Since the previous Air Quality Assessment was produced in 2018, there have been updates to the UK Air Quality Objectives (AQOs)[10] and the introduction of new Future Targets that are outlined in the Environmental Improvement Plan 2023 The objectives and targets for the pollutants of relevance[11] are shown in Table 2-2. Some pollutants have long-term (annual mean) objectives due to the chronic way they affect human health or the natural environment and others have short-term (1-hour, 24-hour mean) objectives due to the acute way they affect human health or the natural environment.

[9] HM Government (2023) Environmental Improvement Plan 2023, https://www.gov.uk/government/publications/environmental-improvement-plan
[10] Department for Environment Food & Rural Affairs (Defra) UK Air Information Resource (UK AIR), National air quality objectives, https://uk-air.defra.gov.uk/assets/documents/Air_Quality_Objectives_Update.pdf
[11] Other pollutants have been screened out of this assessment as exceedance of their respective objectives is not anticipated to be associated with the pollutant sources of relevance to this assessment.

Table 3-1: UK Air Quality Objectives (AQO) and future targets from EIP23

Pollutant	Averaging Period	Objective Threshold	Future Target (EIP23)
For the protection of human health			
Nitrogen Dioxide (NO_2)	Annual mean	40µg/m^3	-
	1-hour mean	200 µg/m^3 Not to be exceeded more than 18 times per year (equivalent to the 99.79th percentile of 1-hour mean values)	-
Particulate Matter (PM_{10})	Annual mean	40µg/m^3	-
	24-hour mean	50µg/m^3 Not to be exceeded more than 35 times per year (equivalent to the 90.4th percentile of 24-hour mean values)	-
Fine Particulate Matter ($PM_{2.5}$)	Annual mean	20µg/m^3	10µg/m^3 by end of 2040 46% reduced by 2030 based on 2005 levels 35% reduced by end of 2040 based on 2018 levels
For the protection of vegetation and ecosystems			
Nitrogen oxides (NOx)	Annual mean	30µg/m^3	73% reduced by 2030 based on 2005 levels

Previous research carried out on behalf of Defra identified that exceedances of the NO_2 1-hour mean are unlikely to occur where the annual mean is below 60µg/m^3. This assumption is still considered valid; therefore, Defra's Technical Guidance document, LAQM (TG22)[12] confirms that this figure can be referenced where 1-hour mean monitoring data are not available (typically if monitoring NO_2 using passive diffusion tubes).

Good practice design (e.g., Building Regulations) often consider WHO guidelines, which are usually more stringent (see Table 2-3 below). Compliance with WHO recommended guidelines for residential and non-residential elements is considered 'best practice' but is non-mandatory at present, i.e., suitable control can be adopted on an 'as-required' basis. Since the previous Air Quality Assessment was produced in 2018, the WHO recommended guidelines were updated in September 2021[13]. The update includes Air Quality Guideline (AQG) levels for the pollutants of relevance to this assessment (NO_2, PM_{10} and $PM_{2.5}$) and a range of interim targets.

[12] Department for Environment Food & Rural Affairs (Defra) (2022) Local Air Quality Management Technical Guidance (TG22), August 2022 https://laqm.defra.gov.uk/wp-content/uploads/2022/08/LAQM-TG22-August-22-v1.0.pdf

[13] World Health Organisation (WHO) (2021) WHO global air quality guidelines, Particulate matter (PM2.5 and PM10), ozone, nitrogen dioxide, sulfur dioxide and carbon monoxide, https://iris.who.int/handle/10665/345329

Table 3-2: Comparison of WHO Guidelines with National Air Quality Objectives

Pollutant	Averaging Period	Air Quality Objective (AQO) (µg/m^3)	WHO Guidelines (µg/m^3)	
			Interim Target	AQG Level
NO_2	Annual mean	40	40 to 20	10
PM_{10}	Annual mean	40	70 to 20	15
$PM_{2.5}$	Annual mean	20	35 to 10	5

3.2 National, Regional and Local Planning Policy

There have been updates to the following policies since the 2018 report:

Policy / Guidance	Description
National Policy and Guidance	
Ministry of Housing, Communities & Local Government – National Planning Policy Framework (NPPF) (2023)[14]	The National Planning Policy (NPPF) published March 2012 and last updated in September 2023 with the purpose of planning achieving sustainable development. Paragraph 186 of the NPPF states that: "*Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or National objectives for pollutants, taking into account the presence of AQMAs and Clean Air Zones, and the cumulative impacts from individual sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. So far as possible these opportunities should be considered at the plan-making Stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications. Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan*". In addition, paragraph 105 states that: *"The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making."* Paragraph 174 discusses how planning policies and decisions should contribute to and enhance the natural and local environment. Of relevance to air quality, NPPF notes that this can be achieved by: *"e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans"*
Planning Policy Guidance (updated 2019)[15]	Planning Practice Guidance (PPG) documents have been published as part of the NPPF. PPG relating to air quality was last updated in November 2019. It provides guidance on the significance of air quality in determining the local impact of proposed developments and highlights the importance of local and neighbourhood plans with regard to air quality. A flowchart is provided to assist local authorities in determining how air quality considerations might fit into development management processes.

[14] Ministry of Housing, Communities & Local Government, National Planning Policy Framework, September 2023
https://www.gov.uk/government/publications/national-planning-policy-framework--2
[15] Ministry of Housing, Communities and Local Government (2019) Planning Practice Guidance: Air Quality, updated 1 November 2019
https://www.gov.uk/guidance/air-quality--3

Policy / Guidance	Description
UK Plan for Tackling Roadside Nitrogen Dioxide Concentrations. Detailed Plan. Defra / Department of Transport (DfT) (2017)[16]	This plan was produced in response to a UK Supreme Court Ruling and sets out how the UK will achieve compliance with EU Limit Values for nitrogen dioxide (NO_2) in the shortest possible time. The plan outlined infrastructure initiatives and grants and the requirements for Local Authorities to produce local action plans, with the aim of reducing NO_2 concentrations below the objective as soon as practically possible.
Regional Planning Policies	
London Local Air Quality Management Framework (2022)[17]	The Major's London Local Air Quality Management (LLAQM) framework is the statutory process used by local authorities to review and improve air quality within their areas. The latest LLAQM was published in October 2019 and the updates was undertaken to ensure: • *Ensure boroughs are taking ambitious action, which is properly co-ordinated at the regional level, and which supports Mayoral objectives including those set out in the London Environment Strategy;* • *Ensure that London boroughs continue to work towards achievement of World Health Organization safe limits for pollutants even when legal limits are met* • *Update information in the guidance documents to reflect new research, policies, and priorities; and* • *Update Cleaner Air Borough Status (a recognition scheme for boroughs that was introduced under the previous Mayor) so that it is transparent and fair, now promotes continual improvement, and clearly aligns with new LLAQM priorities.* Related documents include the 2022 LLAQM Policy Guidance[18], 2022 LLAQM Technical Guidance[19].
London Plan (2021)[20]	The London Plan 2021 was published in March 2021 and is the Spatial Development Strategy for Greater London. It sets out how London will develop of the next 20-25 years and the Mayor's vision for good growth. Policy SI1 Improving air quality "A *Development Plans, through relevant strategic, site-specific and area-based policies, should seek opportunities to identify and deliver further improvements to air quality and should not reduce air quality benefits that result from the Mayor's or boroughs' activities to improve air quality*. B *To tackle poor air quality, protect health and meet legal obligations the following criteria should be addressed:* *1) Development proposals should not*: a) *lead to further deterioration of existing poor air quality* *b) create any new areas that exceed air quality limits, or delay the date at which compliance will be achieved in areas that are currently in exceedance of legal limits* *c) create unacceptable risk of high levels of exposure to poor air quality.* *2 In order to meet the requirements in Part 1, as a minimum:* *a) Development proposals must be at least air quality neutral* *b) Development proposals should use design solutions to prevent or minimise increased exposure to existing air pollution and make provision to address local problems of air quality in preference to post-design or retro-fitted mitigation measures* *c) Major development proposals must be submitted with an Air Quality Assessment. Air quality assessments should show how the development will meet the requirements of B1*

[16] Department for Environment, Food and Rural Affairs / Department for Transport (2017) UK plan for tackling roadside nitrogen dioxide concentrations, July 2017 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/633269/air-quality-plan-overview.pdf
[17] Mayor of London, The London Local Air Quality Management Framework, https://www.london.gov.uk/what-we-do/environment/pollution-and-air-quality/working-london-boroughs
[18] Mayor of London (2019) London Local Air Quality Management (LLAQM), Policy Guidance 2022 (LLAQM.PG (22)), https://laqm.defra.gov.uk/wp-content/uploads/2022/08/LAQM-Policy-Guidance-2022.pdf
[19] Mayor of London (2019) London Local Air Quality Management (LLAQM), Technical Guidance 2022 (LLAQM.TG (22)), https://laqm.defra.gov.uk/wp-content/uploads/2022/08/LAQM-TG22-August-22-v1.0.pdf
[20] Major of London (2021) The London Plan, The Spatial Development Strategy for Greater London, March 2021 https://www.london.gov.uk/sites/default/files/the_london_plan_2021.pdf .

Policy / Guidance	Description
	d) development proposals in Air Quality Focus Areas or that are likely to be used by large numbers of people particularly vulnerable to poor air quality, such as children or older people should demonstrate that design measures have been used to minimise exposure. *C Masterplans and development briefs for large-scale development proposals subject to an Environmental Impact Assessment should consider how local air quality can be improved across the area of the proposal as part of an air quality positive approach. To achieve this a statement should be submitted demonstrating:* *1) How proposals have considered ways to maximise benefits to local air quality, and* *2) What measures or design features will be put in place to reduce exposure to pollution, and how they will achieve this.* *D In order to reduce the impact on air quality during the construction and demolition phase development proposals must demonstrate how they plan to comply with the Non-Road Mobile Machinery Low Emission Zone and reduce emissions from the demolition and construction of buildings following best practice guidance.* *E Development proposals should ensure that where emissions need to be reduced to meet the requirements of Air Quality Neutral or to make the impact of development on local air quality acceptable, this is done on-site. Where it can be demonstrated that emissions cannot be further reduced by on-site measures, off-site measures to improve local air quality may be acceptable, provided that equivalent air quality benefits can be demonstrated within the area affected by the development".*
Mayor of London's Environment Strategy (2018)[21]	The London Environment Strategy was published in May 2018. The strategy aims to set out a joint approach to improve London's environment. In regard to air quality, it states the Mayor will: a) Clean up London's transport system and phase out fossil fuels including diesel, making the whole bus fleet zero emission by 2037 at the latest and introducing the Ultra-Low Emission Zone (ULEZ) by 2019 to deter the most polluting vehicles from entering London. b) Consider introducing a new Air Quality Positive standard so new building developments contribute to cleaning London's air. c) Use the planning system to help ensure that new schools and other buildings that will be used by people who are particularly vulnerable to pollutants are not located in areas of poor air quality. d) Fund the implementation of air quality plans that will help at least 50 schools in some of London's most polluted areas reduce their pupils' exposure to poor air. e) Provide more information to Londoners on when air pollution is bad, with guidance on monitors. f) Give people with fireplaces or wood burning stoves better information on which to use so they don't make air pollution worse; and: Set even tighter long-term air quality standards based on the best health evidence to make sure Londoners can breathe the cleanest air and start addressing the problem of indoor air quality
The Mayor of London's Transport Strategy (2018)[22]	The Mayor's Transport Strategy (MTS) compliments London's policy documents by setting out policies and measures for the development of London's transport infrastructure. It aims to promote improvements in air quality, by "*improving public transport and assisted transport services for older and disabled people will help a wider range of people to become less car dependent, and improving streets to increase active travel levels, reduce road danger, improve air quality and reconnect communities will be vital in reducing unfair health inequalities*". Policy 6: *"The Mayor, through TfL and the boroughs, and working with stakeholders, will take action to reduce emissions – in particular diesel emissions – from vehicles on London's streets, to improve air quality and support London reaching compliance with UK and EU legal limits as soon as possible. Measures may include retrofitting vehicles with equipment to reduce emissions,*

[21] Mayor of London (2018) London Environment Strategy, May 2018 https://www.london.gov.uk/sites/default/files/london_environment_strategy_0.pdf
[22] Mayor of London (2018), Mayor's Transport Strategy, March 2018 https://www.london.gov.uk/sites/default/files/mayors-transport-strategy-2018.pdf

Policy / Guidance	Description
	promoting electrification, road charging, the imposition of parking charges/ levies, responsible procurement, the making of traffic restrictions/ regulations and local actions". The transport Strategy recognises that air quality in London is the worst in the country and supports the policies included in the Mayor of London's Air Quality Strategy. The Strategy lists a number of proposals aimed at improving air quality, such as introduction of the central London Ultra Low Emission Zone (ULEZ) and improvements to bus and taxi fleets.
Mayor of London's Supplementary Planning Guidance (SPG) Sustainable Design and Construction (2014)[23]	Mayor's Priorities: ▪ Developers are to design their schemes so that they are at least 'air quality neutral'. ▪ Developments should be designed to minimise the generation of air pollution. ▪ Developments should be designed to minimise and mitigate against increased exposure to poor air quality. ▪ Developers should select plant that meets the standards for emissions from combined heat and power and biomass plants set out within the document. ▪ Developers and contractors should follow the guidance set out in the emerging The Control of Dust and Emissions during Construction and Demolition SPG when constructing their development. The document provides guidance on: ▪ Assessment requirements ▪ Construction and demolition ▪ Design and occupation ▪ Air quality neutral policy for buildings and transport, and: Emissions standards for combustion plant
Mayor of London's London Plan Guidance. Air Quality Neutral Guidance (February 2023)[24]	This updated guidance document was published on 8th February 2023 and provides updated methodology for undertaking Air Quality Neutral Assessments. An Air Quality Neutral development is defined as one that meets or improves upon the Air Quality Neutral benchmarks that are set out in this guidance document. The benchmarks set out the maximum allowable emissions of nitrogen oxides (NOx) and particulate matters based on the size and use class of the proposed development. "*These benchmarks are based on research and evidence carried out by building and transport consultants and are designed to prevent the degradation of air quality from the combined emissions of individual developments*".
London Plan Guidance. Air Quality Positive (2021)[25]	The Air Quality Positive London Plan Guidance *"to maximise benefits to local air quality in and around a large-scale development sites and masterplan area while also minimising exposure to existing sources of poor air quality."* It is to be applied at the plan making stage to masterplans as well as development stages which include large-scale development sites that are likely to be subject to an Environmental Impact Assessment (EIA).

[23] Mayor of London (2014) Sustainable Design and Construction Supplementary Planning Guidance, London plan 2011 Implementation Framework, April 2014 https://www.london.gov.uk/sites/default/files/gla_migrate_files_destination/Sustainable%20Design%20%26%20Construction%20SPG.pdf
[24] Mayor of London (2023) Air Quality Neutral London Planning Guidance, 8th February 2023. https://www.london.gov.uk/programmes-strategies/planning/implementing-london-plan/london-plan-guidance/air-quality-neutral-aqn-guidance
[25] Mayor of London (2021) London Planning Guidance Air Quality Positive, Pre-consultation draft, March 2021 https://www.london.gov.uk/sites/default/files/air_quality_positive_lpg_pre-consultation_draft.pdf

Policy / Guidance	Description
Local Planning Policy	
Camden Local Plan[26]	The Camden Local Plan was published in July 2017 and sets out Camden Council's planning policies. The following policy is of direct relevance to air quality: Policy CC4 Air Quality – Developments should mitigate the impact of construction and the completed development on air quality in the borough. Construction should adopt sustainable design and construction methods including measures that minimise negative impacts on air quality. Policy T2 Parking and car-free development – Non-residential developments should limit on-site parking to spaces essential for the operation of the development (e.g., designated for disabled people where necessary, and/or essential operational or servicing needs).
Camden Air Quality guidance[27]	The Camden Local Plan is supported by supplementary planning documents including the Camden Planning Guidance which was adopted in January 2021. This includes an Air Quality guidance document which seeks to protect future occupants from exposure to poor air quality and should limit their impact on local air quality and be at least air quality neutral.
Other Relevant Policy and Guidance	
Defra Local Air Quality Management (LAQM) Policy Guidance (2022)[28] and Technical Guidance (2022)[29]	The guidance issued under Part IV of the Environment Act 1995 is designed to help local authorities with their LAQM duties. The guidance sets out the general approach to use and detailed technical guidance to guide local authorities through the Review and Assessment process.
World Health Organisation (WHO) Global Air Quality Guidelines (2021)[30]	Since 1987, WHO has periodically issued health-based air quality guidelines to assist governments and civil society to reduce human exposure to air pollution and its adverse effects. The WHO air quality guidelines published in 2006 provided health-based guideline levels for the major health-damaging air pollutants, including particulate matter (PM_{10} and $PM_{2.5}$), ozone (O_3), nitrogen dioxide (NO_2) and sulphur dioxide (SO_2). These guidelines had a significant impact on pollution abatement policies all over the world and led to the first universal frame of reference. Following extensive research which started in 2016 and has referred to numerous epidemiological studies, WHO have reassessed their guideline values and recently (September 2021) provided updated values.
IAQM Indoor Air Quality Guidance (2021)[31]	The IAQM have provided guidance on the assessment of indoor air quality. This was published in September 2021 and covers assessment, monitoring, modelling and mitigation relating to indoor air quality.
Covid-19: Supplementary Guidance, Local Air Quality Management Reporting in 2021[32]	The guidance had been informed by responses from an impact survey received following the release of the interim statement on Covid-19 impacts to the LAQM regime. The guidance is to be read in conjunction with LAQM (TG22).

[26] London Borough of Camden (2017) Camden Local Plan https://www.camden.gov.uk/documents/20142/4820180/Local+Plan.pdf/ce6e992a-91f9-3a60-720c-70290fab78a6

[27] London Borough of Camden (January 2021) Camden Planning Guidance – Air Quality 1 https://www.camden.gov.uk/documents/20142/4823269/Air+Quality+CPG+Jan+2021.pdf/4d9138c0-6ed0-c1be-ce68-a9ebf61e8477?t=1611580574285

[28] Defra (2022) Local Air Quality Management Policy Guidance PG(22) https://laqm.defra.gov.uk/wp-content/uploads/2022/08/LAQM-Policy-Guidance-2022.pdf

[29] Defra (2022) Local Air Quality Management Technical Guidance (TG22) August 2022 https://laqm.defra.gov.uk/wpcontent/uploads/2022/08/LAQM-TG22-August-22-v1.0.pdf

[30] World Health Organisation (WHO) (2021) WHO global air quality guidelines, Particulate matter (PM2.5 and PM10), ozone, nitrogen dioxide, sulfur dioxide and carbon monoxide, https://apps.who.int/iris/handle/10665/345329.

[31] Institute of Air Quality Management (IAQM) (2021), Indoor Air Quality Guidance: Assessment, Monitoring, Modelling and Mitigation, version 1.0, September 2021, https://iaqm.co.uk/wp-content/uploads/2013/02/iaqm_indoorairquality.pdf

[32] Department for Environment, Food and Rural Affairs (Defra) / Greater London Authority (2021). Covid-19: Supplementary Guidance, Local Air Quality Management Reporting in 2021, April 2021, Version 1.0, https://laqm.defra.gov.uk/supporting-guidance.html

Policy / Guidance	Description
Environmental Protection (EPUK)/Institute of Air Quality Management (IAQM) Land Use Planning & Development Control (2017)[33]	This guidance has been produced to ensure that air quality is adequately considered in the land use planning and development control processes by relevant officers within local authorities, developers, and consultants involved in the preparation of development proposals and planning applications. This document is best practice guidance and has no formal or legal status.
IAQM Assessment of Dust from Demolition and Construction (2023)[34]	The document provides guidance for developers, their consultants and environmental health practitioners on how to undertake a construction impact assessment (including demolition and earthworks). The guidance provides a method for assigning a magnitude of risk (high, medium or low) and identifies appropriate mitigation measures.
IAQM assessment of air quality impacts on designated nature conservation sites[35]	This guidance signposts the appropriate thresholds used by local authorities, the Environment Agency and other regulators to determine the potential for air quality damage on sensitive ecological sites. Should threshold be likely to be exceeded, a suitably qualified and experienced ecologist is required to determine whether there is likely to be a significant impact on the habitat.

3.3 Summary

There have several updates to national, local and other relevant planning guidance documents since the Air Quality Assessment was submitted in 2018.

An update to the national Air Quality Objectives has resulted in a lower annual mean fine particulate matter ($PM_{2.5}$) and the introduction of Future Targets for $PM_{2.5}$ as part of the Environmental Improvement Plan. These updates have been considered when assessing the local air quality. The World Health Organisation (WHO) air quality target values were also updated in 2021, resulting in significantly lower target values for the pollutants of relevance to this assessment. Compliance with WHO recommended guidelines for residential and non-residential elements is considered 'best practice' but is non-mandatory at present, i.e., suitable control can be adopted on an 'as-required' basis.

Since 2018, there have also been a number of updates to policy and guidance, including the Mayor of London's Environment Strategy, Transport Strategy and updates to Air Quality Neutral and Air Quality Positive, which need to be considered as part of Air Quality Assessments for any proposed development in the London. Camden Council have also introduced a number of new planning policy documents. This addendum reports addresses any additional requirements as a result of this updates and in particular, includes an updated Air Quality Neutral assessment.

[33] Environmental Protection UK (EPUK)/Institute of Air Quality Management (IAQM), (2017) Land-Use Planning & Development Control: Planning for Air Quality https://iaqm.co.uk/text/guidance/air-quality-planning-guidance.pdf

[34] Institute of Air Quality Management (IAQM) (2023) Guidance on the Assessment of Dust from Demolition and Construction, August 2023 (Version 2.1) https://iaqm.co.uk/wp-content/uploads/2013/02/Construction-dust-2023-BG-v6-amendments.pdf

[35] Institute of Air Quality Management (IAQM) (2020) A guide to the assessment of air quality impacts on designated nature conservation sites, version 1.1, May 2020, https://iaqm.co.uk/text/guidance/air-quality-impacts-on-nature-sites-2020.pdf

4.0

Baseline Conditions

4.0 Baseline Conditions

4.1 Local Air Quality Management

The 2018 assessment reports the presence of Camden Air Quality Management Area (AQMA), which encompasses the entire borough. This was designated in 2002 and is still in place[36]. The AQMA was declared due to concern regarding concentrations of annual meal nitrogen dioxide (NO_2) and the 24-hour mean PM_{10} exceeding the Air Quality Objective (AQO) objectives.

4.2 Local Air Quality Monitoring

The 2018 assessment included a review of local monitoring within the study area of the Proposed Development between 2012 and 2016. This comprised the reporting of nitrogen dioxide (NO_2) concentrations at four diffusion tubes and two automatic monitors located within the study area.

A review of available data on the Camden Council website indicates that there are a number of Annual Status Reports (ASR) available since 2018, with the most recent released August 2022[37], along with a new Clean Air Strategy and Air Action Plan[38].

The site is located close to the boundary with City of Westminster. The latest ASR[39] for Westminster has therefore also been reviewed. The location of monitoring sites within 2km of the Site is shown in Figure 4-1.

[36] Defra (2023) UK AIR database – Camden AQMA AQMA Details - Defra, UK
[37] London Borough of Camden (2022) Air Quality Annual Status Report for 2021 8f17a472-2204-05a1-c6e0-f1c02069711e (camden.gov.uk)
[38] London Borough of Camden (December 2022) Camden Clean Air Strategy 2019-2034 ad618e94-0113-696d-5fc6-104d8969ab5a (camden.gov.uk)
[39] London Borough of Westminster (2022) Annual Status Report for 2021 https://www.westminster.gov.uk/planning-building-control-and-environmental-regulations/environmental-policies-regulations-and-guidance/air-quality/improving-air-quality/pollution-alerts-statistics-and-reports

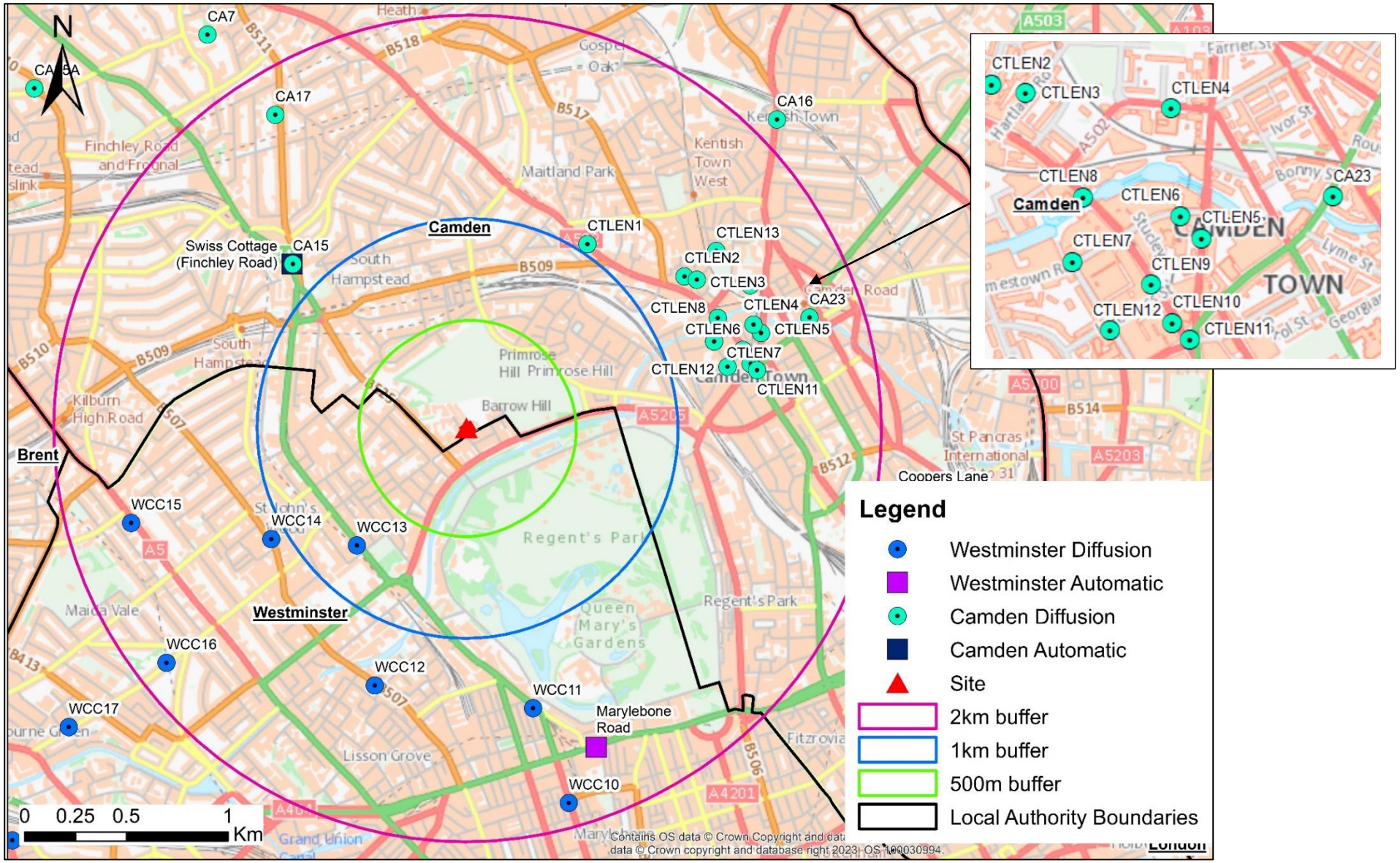

Figure 4-1: Location of automatic and non-automatic monitoring sites within 2km of the Proposed Development

4.2.1 Automatic Monitoring

More recent automatic monitoring data can be obtained from the Defra website[40]. This has been reviewed to include more recent automatic monitoring data for 2019, 2020 and 2021 that is available for selected sites and pollutants, and this information is reported in the following tables:

Table 4-1: Automatic Monitoring Sites within 2km

Site ID	Site Location	OS Grid Reference		Site Type	Pollutants Monitored	Distance to kerb of nearest road (m)
		x	y			
London Borough of Camden						
CD1	Swiss Cottage (Finchley Road)	526629	184391	Kerbside	NO_2; PM_{10}; $PM_{2.5}$	1.5m
London Borough of Westminster						
	Marylebone Road	528125	182016	Kerbside	NO_x; PM_{10}; $PM_{2.5}$; SO_2	1.5m

Recent NO_2 monitoring results from 2018 to 2021 are shown in Table 4-2, with numbers of hourly exceedances of 200µg/m^3 indicated in brackets. An exceedance is defined as an annual mean greater than 40µg/m^3 for NO_2, or when the hourly value exceeds 200µg/m^3 more than 18 times within a calendar year. All exceedances of the objective thresholds are indicated in bold.

Table 4-2: Results of Local Air Quality Monitoring at Automatic Sites – Nitrogen Dioxide

Site ID	Site Type	Distance from Site	Annual Mean NO_2 Concentration (µg/m^3)			
			2018	2019	2020	2021
London Borough of Camden						
CD1	Kerbside	1.2km	**64** (2)	**43** (1)	33 (0)	**44** (2)
London Borough of Westminster						
Marylebone Rd	Kerbside	1.7km	**85 (29)**	**63** (0)	**44** (0)	**-**

Notes: Exceedances of the annual mean air quality objective are indicated in **bold.**

Values greater than 60µg/m^3 are underlined, the value at which exceedances of the short-term objective are likely to occur.

- no data available

These results show that the NO_2 annual mean air quality objective was exceeded at the kerbside sites in the period 2018 to 2021. A maximum concentration of 85µg/m^3 was recorded at Marylebone Rd site in 2018. Concentrations were lower in 2020, but this is anticipated to be largely as a result of the Covid-19 lockdown restrictions.

The short-term NO_2 objective was exceeded at both locations during monitoring period between 2018 and 2021. The number of daily exceedances of 200µg/m^3 went above the permissible 18 days per year at Marylebone Road in 2018. Since 2019 there have been a total of three exceedance of the short-term NO_2 objective across the two sites. Concentrations recorded in 2019 were either well below 60µg/m^3 or marginally above and have been well below 60µg/m^3 in 2020 and 2021. As these are kerbside sites alongside A-roads, it is expected that concentrations are the Proposed Development site will be lower. Exceedances of the short-term objective for NO_2 at the Proposed Development are therefore considered to be unlikely.

[40] Department for Environment Food & Rural Affairs (Defra), Interactive monitoring networks map, https://uk-air.defra.gov.uk/interactive-map

Annual mean concentrations of PM_{10} recorded at the monitoring sites within 2km are shown in Table 4-3, with number of days exceedance shown in brackets. An exceedance is defined as an annual mean greater than 40µg/m^3 for PM_{10}, or when the daily value exceeds 50µg/m^3 more than 35 days within a calendar year.

Table 4-3: Results of Local Air Quality Monitoring at Automatic Sites- PM_{10}

Site ID	Site Type	Distance from Site	Annual Mean PM_{10} Concentration (µg/m^3)			
			2018	2019	2020	2021
London Borough of Camden						
CD1	Kerbside	1.2km	21 (4)	19 (8)	16 (3)	16 (0)
London Borough of Westminster						
Marylebone Rd	Kerbside	1.5km	26 (5)	24 (11)	-	-

Annual mean concentrations of PM_{10} recorded at the two kerbside sites have met the air quality objective (40µg/m^3) at sites in all years. A maximum concentration of 26µg/m^3 was recorded at Marylebone Road in 2018. The number of daily exceedances of 50µg/m^3 have remained well below the permissible 35 days per year, with a maximum of 11 days recorded in 2019 at the kerbside site of Marylebone Road.

Annual mean concentrations of $PM_{2.5}$ recorded at the monitoring sites within 2km are shown in Table 4-4. An exceedance is defined as an annual mean greater than 20µg/m^3 for $PM_{2.5}$

Table 4-4: Results of Local Air Quality Monitoring at Automatic Sites- $PM_{2.5}$

Site ID	Site Type	Distance from Site	Annual Mean $PM_{2.5}$ Concentration (µg/m^3)			
			2018	2019	2020	2021
London Borough of Camden						
CD1	Kerbside	1.2km	11	11	10	9
London Borough of Westminster						
Marylebone Rd	Kerbside	1.5km	16	14	9	-
Notes: - no data available						

Annual mean concentrations of $PM_{2.5}$ have met the air quality objective (20µg/m^3) at both kerbside sites in all years. The maximum concentration of 14µg/m^3 was recorded at the kerbside site Marylebone Road in 2019. Annual mean $PM_{2.5}$ concentrations recorded in 2020 and 2021 are also at or below the EIP Future Target (10µg/m^3).

4.2.2 Non-Automatic Monitoring

The latest ASR indicates that the London Borough of Camden has 33 diffusion tubes monitoring NO_2 across the borough, 16 of which are within 2km of the Proposed Development; all of these are classified as either "Kerbside" or "Roadside". The latest London Borough of Westminster ASR shows that of the 35 diffusion tubes monitoring NO_2 across the borough, 7 are within 2km of the Proposed Development. However, these were introduced in 2020 and therefore no data is available for these sites at this time.

Details of the diffusion tubes within 2km and recent monitoring results are given in Table 4-5 and Table 4-6.

Table 4-5: Details of Diffusion Tube Monitoring Sites within 2km

Site ID	Site Location	OS Grid Reference		Site Type	Distance to kerb of nearest road (m)
		x	y		
London Borough of Camden					
CA15	Swiss Cottage	526633	184392	Kerbside	<1
CA17	47 Fitzjohn's Road	526547	185125	Roadside	5
CA23	Camden Road	529173	184129	Kerbside	<1
CTLEN1	Haverstock School	528081	184490	Roadside	0.5
CTLEN2	Harmood Street	528558	184331	Roadside	1
CTLEN3	Hartland Road	528619	184315	Roadside	1
CTLEN4	Hawley Primary School	528881	184287	Roadside	6
CTLEN5	Kentish Town Road	528935	184053	Roadside	0.5
CTLEN6	Hawley Crescent	528898	184094	Roadside	0.5
CTLEN7	Jamestown Road	528704	184011	Roadside	0.5
CTLEN8	Camden High Street (Bridge)	528722	184127	Roadside	2
CTLEN9	Camden High Street (Camden News)	528845	183970	Roadside	2
CTLEN10	Camden High Street (American Candy)	528884	183901	Roadside	1
CTLEN11	Britannia Junction	528915	183870	Kerbside	0.5
CTLEN12	Cavendish School	528770	183887	Roadside	2
CTLEN13	Holy Trinity & St. Silas School	528715	184456	Roadside	1.5
London Borough of Westminster					
WCC10	Baker Street	527990	181743	Kerbside	0
WCC11	Park Road / Regents Park	527814	182209	Roadside	2
WCC12	Lisson Grove	527036	182321	Urban Background	0
WCC13	Wellington Road	526948	183009	Kerbside	0
WCC14	Abby Road	526527	183040	Kerbside	0
WCC15	Maida Vale	525838	183119	Kerbside	0
WCC16	Sutherland Avenue	526012	182432	Kerbside	0

Table 4-6: Diffusion Tube Monitoring Results 2018 to 2021

Site ID	Site Location	Site Type	Annual Mean NO_2 Concentration (µg/m^3)			
			2018	2019	2020	2021
London Borough of Wandsworth						
CA15	Swiss Cottage	Kerbside	**62.3**	**50.9**	-	-
CA17	47 Fitzjohn's Road	Roadside	**48.1**	**43.5**	34.5	30.0
CA23	Camden Road	Kerbside	**55.6**	**53.7**	**44.3**	37.3
CTLEN1	Haverstock School	Roadside	-	33.1	23.5	21.2
CTLEN2	Harmood Street	Roadside	-	31.7	24.9	20.8
CTLEN3	Hartland Road	Roadside	-	31.8	26.1	20.9
CTLEN4	Hawley Primary School	Roadside	-	**42.9**	34.1	27.1
CTLEN5	Kentish Town Road	Roadside	-	**45.0**	33.8	28.1
CTLEN6	Hawley Crescent	Roadside	-	38.9	32.3	26.0
CTLEN7	Jamestown Road	Roadside	-	38.7	29.9	25.9
CTLEN8	Camden High Street (Bridge)	Roadside	-	**41.5**	33.1	26.6
CTLEN9	Camden High Street (Camden News)	Roadside	-	38.8	30.5	29.9
CTLEN10	Camden High Street (American Candy)	Roadside	-	**47.7**	37.8	31.7
CTLEN11	Britannia Junction	Kerbside	-	**53.9**	**40.7**	37.5
CTLEN12	Cavendish School	Roadside	-	34.0	26.9	23.0
CTLEN13	Holy Trinity & St. Silas School	Roadside	-	28.1	22.1	18.2

Notes: Exceedances of the annual mean air quality objective are indicated in bold.

Values greater than 60µg/m^3 are underlined, the value at which exceedances of the short-term objective are likely to occur.

- no data available

An exceedance is defined as an annual mean greater than 40µg/m^3 for NO_2. Of the 16 diffusion tube monitoring locations within 2km, 8 of the sites exceeded the NO_2 objective (40µg/m^3) during the period between 2018 and 2021. The maximum recorded concentration in 2018 was 62.3µg/m^3, recorded at CA15, which is a kerbside site located at Swiss Cottage. Results from 2019 indicate that the maximum annual mean concentration recorded at the monitoring site within 2km had reduced to 53.9µg/m^3. Both of these maximum concentrations were recorded at kerbside sites close to major roads. The highest roadside concentration recorded in 2019 was 47.7µg/m^3 recorded at Camden High Street. In 2020 and 2021 results were noticeably lower, which is anticipated due to the impact of Covid-19 lockdown restrictions but may also be as a result to other local improvements.

The majority of local monitoring sites are kerbside or roadside sites close to major A roads. Of the available data, CTLEN3, CTLEN7, and CTLEN12 are expected to be most representative of the Proposed Development as they are also not located next to main roads. Annual mean concentrations recorded at these sites during this monitoring period have remain below the objective. It is therefore anticipated that annual mean concentrations at the Proposed Development will be below the objective. Furthermore, due to the distance from the nearby roads, the lowest on-site concentrations are anticipated to be in the north-eastern area of the site.

Excluding a marginal exceedance at a kerbside site in 2018, the annual mean NO_2 concentrations recorded at the diffusion tube sites within 2km between 2018 and 2021 have not exceeded 60µg/m^3. Exceedances of the short-term objective are therefore considered to be unlikely.

In summary, a review of more recent monitoring data indicates that NO_2 and PM_{10} pollutant concentrations in the locality of the Proposed Development are expected to be below the national objectives.

4.3 Defra's Background Pollutant Concentration Mapping

Background concentrations refer to existing levels of pollution in the atmosphere, as a result of emission from a variety of sources, such as traffic, industrial and agricultural processes. Defra publishes background pollutant mapping[41] for every 1km x 1km OS grid square across the UK for NO_x, NO_2, PM_{10} and $PM_{2.5}$. Background pollutant mapping has been reviewed for the grid square in which the Proposed Development lies and surrounding grid squares. The 2019 (latest pre Covid-19) and 2023 (current year) background concentrations (which are based on 2018 monitoring data) are presented in Table 4-7.

Table 4-7: Defra's 2019 and 2023 background concentrations of NOx, NO_2, PM_{10} and $PM_{2.5}$

OS Grid Square		Annual Mean Concentration (µg/m^3)							
		NO_x		NO_2		PM_{10}		$PM_{2.5}$	
X	Y	2019	2023	2019	2023	2019	2023	2019	2023
527500	183500	44.6	37.2	28.3	24.5	18.2	17.2	11.7	11.0
528500	183500	48.5	40.6	30.2	26.2	18.7	17.6	12.1	11.3
527500	184500	42.9	36.1	27.4	24.0	18.3	17.2	11.8	11.1
526500	183500	46.4	38.5	29.2	25.2	18.9	17.7	12.1	11.3
527500	182500	53.2	43.6	32.4	27.8	19.5	18.3	12.4	11.6
Average		**47.1**	**39.2**	**29.5**	**25.5**	**18.7**	**17.6**	**12.0**	**11.3**

4.4 London Atmospheric Emissions Inventory

The London Atmospheric Emissions Inventory (LAEI) is a database of geographically referenced datasets of pollutant emissions and sources in Greater London. The concentration maps across the whole LAEI area, in a resolution of 20m x 20m, were produced by the LAEI dispersion modelling. The LAEI includes the key pollutants emissions such as NO_x and PM_{10} from line sources (e.g., road transport), area sources (e.g. aviation, domestic and commercial fuel) and point sources (e.g. Part A and Part B processes). The latest available dataset includes concentration maps for 2019 and forecast year 2025 and 2030.

- The 2019 annual mean NO_2 concentration map shows that modelled concentrations at the Proposed Development are expected to range between 21µg/m^3 and 30µg/m^3, as shown in Figure 4-1, and are therefore below the objective (40µg/m^3).
- The 2019 annual mean PM_{10} concentration map shows that modelled concentrations at the Proposed Development are expected to range between 14µg/m^3 and 17µg/m^3, are therefore below the objective (40µg/m^3) (Figure 4-2).
- The 2019 annual mean $PM_{2.5}$ concentration map shows that modelled concentrations at the Proposed Development are expected to range between 10µg/m^3 and 12µg/m^3, as shown in Figure 4-3 and are therefore below the objective (25µg/m^3).

The concentration maps from LAEI show that there are unlikely exceedances of the annual mean NO_2, $PM_{2.5}$ and PM_{10} objective limit values in 2019 at the proposed site.

[41] Pollutant Background Mapping, Defra https://laqm.defra.gov.uk/review-and-assessment/tools/background-maps.html.

Figure 4-1: LAEI NO_2 concentration map for 2019

Figure 4-2: LAEI PM_{10} concentration map for 2019

Figure 4-3: LAEI $PM_{2.5}$ concentration map for 2019

4.5 Future Baseline

Since the 2018 Air Quality Assessment, the London Ultra Low Emission Zone (ULEZ) has been introduced. The ULEZ first became operational in April 2019 and from 25 October 2021, the ULEZ expanded from Central London to create a single, larger zone up to, but not including the North Circular Road (A406) and South Circular Road (A205). The Proposed Development is located within the original boundary of the London Ultra Low Emission Zone (ULEZ).

Transport for London (TfL) report[42] that since the launch of the Ultra-Low Emission Zone (ULEZ) in 2019, it has helped reduce some harmful pollutants in central London by almost half by cutting the number of older more polluting vehicles on the roads and contributing to a 44% reduction in roadside nitrogen dioxide within its boundaries. There are many areas outside of central London where concentrations of airborne pollutants are over the legal limits. TfL are therefore expanding the ULEZ to help improve air quality for millions more Londoners, which will further consolidate the improvement delivered within the Central ULEZ.

The London Air Quality Map on the Mayor of London website[43] shows projected levels for 2025 following the Mayor's actions set out in the London Environment Strategy[44]. This has been reproduced as Figure 4-4 for the area of the Proposed Development. It can be seen that modelled nitrogen dioxide (NO_2) concentrations for most of the Proposed Development site is expected to range between 21µg/m^3 and 30µg/m^3.

[42] Transport for London (TfL) Air Quality, https://tfl.gov.uk/corporate/about-tfl/air-quality
[43] Mayor of London / London Assembly, Air Quality Data, London Air Quality Map https://data.london.gov.uk/air-quality/
[44] Mayor of London / London Assembly, London Environment Strategy, https://www.london.gov.uk/what-we-do/environment/london-environment-strategy

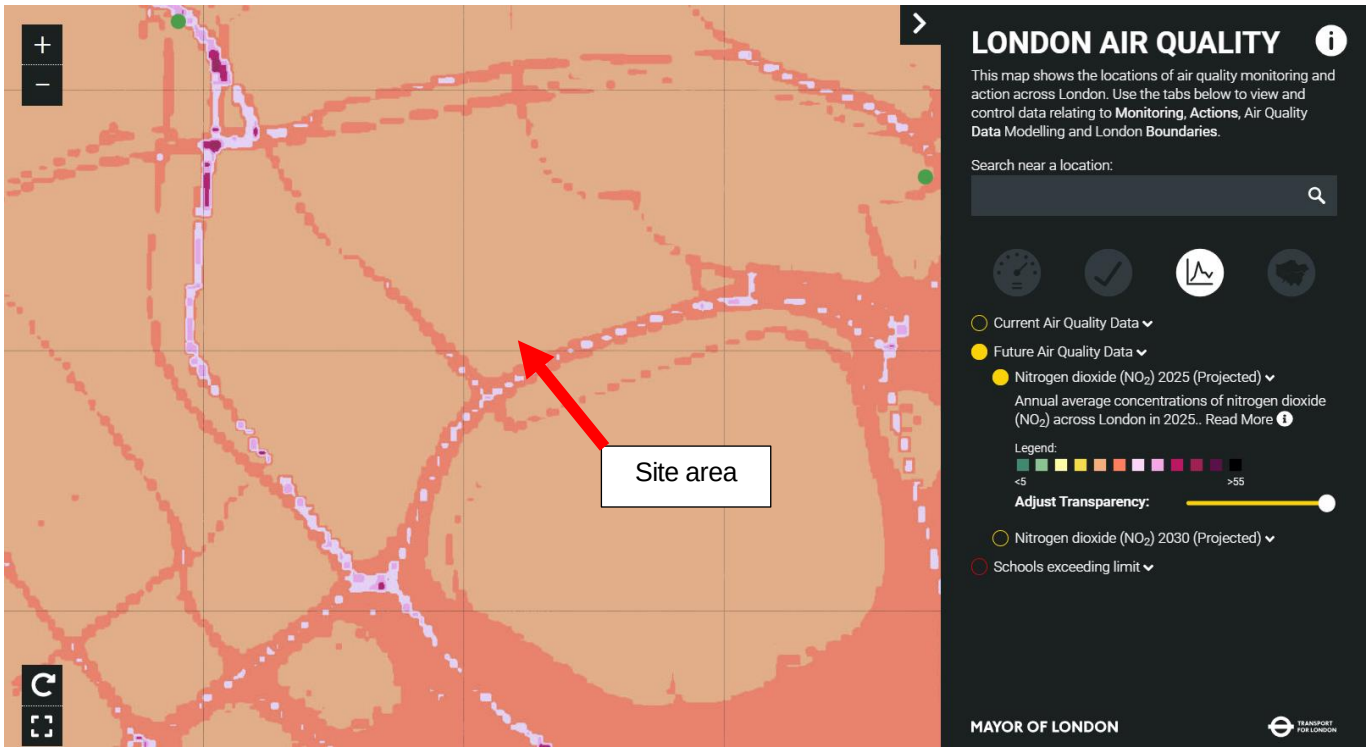

Figure 4-4: 2025 Projected Nitrogen Dioxide (NO_2)

5.0

Impact Assessment

5.0 Impact Assessment

5.1 Construction

The 2018 Assessment included a construction dust assessment in accordance with IAQM guidance and makes recommendations for mitigation measures. The IAQM guidance was updated in 2023. The changes to the proposed design and the amendments to the updated guidance do not result in a change to the conclusions of the construction dust assessment and therefore proposed mitigation measures. Furthermore, Cundall have been involved with the baseline and construction dust monitoring of the site, so have awareness that appropriate measures are in place with reference to site dust management.

5.2 Operation Traffic Emissions

As the site is within an AQMA, proposed trip generation data should be considered in accordance with the following criteria for within an AQMA listed in the Environmental Protection UK (EPUK) and the Institute of Air Quality Management (IAQM) guidance on Planning for Air Quality

- change in Light Duty Vehicle (LDV) flows of more than 100 Annual Average Daily Traffic (AADT); or
- a change in Heavy Duty Vehicle (HDV) flows of more than 25 AADT

The 2018 assessment considers traffic count data from local count point and concludes that based on the low traffic flows volumes, there are unlikely to be exceedances of the AQOs without other factors, such as a street layout reducing dispersion of pollutants. The 2018 report also states that given the nature of the Proposed Development, it is not expected to generate significant volumes of additional traffic. However, should a future traffic assessment indicate that additional trips are likely to be generated as a result of the proposals, an air quality impact assessment may be required, particularly as it is located within an AQMA.

The updated design indicates that there is to be no net change in car parking provision at the site. The conclusion that there will be no significant change in traffic flows is therefore still valid.

5.3 Air Quality Neutral and Air Quality Positive

5.3.1 Air Quality Neutral

The Air Quality Neutral Planning Support document was first published in March 2013 and updated in April 2014[45] to accompany the 2014 publication of the Greater London Authority's (GLA's) Sustainable Design and Construction SPG. Since the previous Air quality Assessment was produced in 2018, there has been an update to Air Quality Neutral guidance. was undertaken to determine compliance with the London Plan's policy relating to "Air Quality Neutral Development". An update to the Air Quality Neutral Guidance was issued on 8th February 2023 and outlines the methodology that needs to be followed when undertaking Air Quality Neutral Assessments.

The 2023 guidance provides specialist consultants with an updated methodology to undertake an 'Air Quality Neutral' assessment, as well as emission benchmarks for buildings and transport, against which the predicted values for the Proposed Development can be compared. The guidance relating to Air Quality Neutral follows a tiered approach, such that all developments are expected to comply with minimum standards for emissions associated with land-use. Compliance with "Air Quality Neutral" is then founded on emissions benchmarks that have been derived for both building (energy) use and road transport in different areas of London. Developments that exceed the benchmarks are required to implement on-site or off-site mitigation to offset the excess emissions.

According to the 2023 guidance, developments which do not include additional emission sources are assumed to be Air Quality Neutral. This would include development that have no new combustion plant and no additional motor

[45] Air Quality Consultants / Environ (2014) Air Quality Neutral Planning Support Update: GLA 80371, April 2014 https://www.aqconsultants.co.uk/CMSPages/GetFile.aspx?guid=226d8d5e-d7e9-40e1-bf0d-85c4554496da

vehicle parking and therefore are not expected to lead to an increase in motor vehicle movements[46]. As the proposed residential development is no longer to include gas boiler and will incorporate air source heat pumps (ASHPs) for heating and cooling, there will be no on-site combustion plant. The building with be air quality neutral in terms of building emissions.

There is to be no change to the existing provision of 10 car parking spaces. As the development will not result in any additional motor vehicle parking, it can be assumed that the development will be Air Quality Neutral with respect to transport emissions.

5.3.2 Air Quality Positive

Air Quality Positive outlines the London Plan's Air Quality Positive approach and is reported in a consultation draft document, which was published in November 2021[47].

> *"The approach aims to maximise the benefits to local air quality in and around large-scale development in London. 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".*

The Air Quality Positive approach contains the expectation that masterplans and large-scale developments, including those subjective to Environmental Impact Assessment (EIA) must also take an Air Quality Positive approach (in addition to Air Quality Neutral). The scale of the Proposed Development would therefore not necessitate the requirement for an Air Quality Positive Statement. As best practice, the development should consider how selecting the most sustainable design options will result in better design and reduced exposure, lower or zero building emissions and transport emissions and innovation and future proofing. This is an integral part of the Proposed Development's design.

[46] According to the 2023 air quality neutral guidance, taxi, delivery and service vehicles are not covered by Air Quality Neutral.
[47] Mayor of London, Greater London Authority (2021) London Plan Guidance, Air Quality Positive, consultation draft, November 2021, https://consult.london.gov.uk/air-quality-neutral

6.0

Conclusions

6.0 Conclusions

This addendum has examined the potential air quality impacts from a new Proposed Development at Barrie House, 29 St Edmunds Terrace, London. Since a planning application was made in 2018 (Ref: 2018/0645/P), there have been updates to the proposed design.

The air quality impacts have been compared with those evaluated within the previous 2018 assessment. This addendum provides updates to relevant legislation, planning policies and guidance, as well as listing relevant documents that were not referred to in the 2018 report. This addendum also refers to the Proposed Development design, reports updated baseline data and considers whether the 2018 conclusions are still relevant in the light of this updated information.

There have been a number of updates to national, local and other relevant planning guidance documents since the Air Quality Assessment was submitted in 2018. An update to the national Air Quality Objectives has resulted in a lower annual mean fine particulate matter ($PM_{2.5}$) and the introduction of Future Targets for $PM_{2.5}$ as part of the Environmental Improvement Plan. These updates have been considered when assessing the local air quality. A review of more recent monitoring data indicates that NO_2 and PM_{10} pollutant concentrations in the locality of the Proposed Development are expected to be below the national objectives. Annual mean $PM_{2.5}$ concentrations recorded in 2020 and 2021 are also at or below the EIP Future Target (10µg/m^3).

Since 2018, there have also been a number of updates to policy and guidance, including the Mayor of London's Environment Strategy, Transport Strategy and updates to Air Quality Neutral and Air Quality Positive, which need to be considered as part of Air Quality Assessments for any proposed development in the London. Camden Council have also introduced a number of new planning policy documents. This addendum reports addresses any additional requirements as a result of this updates. It can be concluded that these will not have any bearing on the development proposals. It is therefore concluded that the mitigation measures provided within the original assessment remain fit for purpose, and that no further assessment of air quality impacts is required.

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