Wardell Armstrong
41-50 Futura Park, Aspinall Way, Middlebrook, Bolton, BL6 6SU United Kingdom
Telephone: +44 (0)1204 227 227 www.wardell-armstrong.com

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Your ref:

Mr Gearoid Donnelly
Brinson Staniland Partnership
Kings House
32-40 Widmore Road
Bromley
Kent
BR1 1RY

Dear Gearoid,

20-24 Russell Square, London – Air Quality Screening Assessment

Wardell Armstrong has been instructed to undertake an air quality assessment to accompany an application for a proposed educational development in central London.

The proposals are for the refurbishment and extension of four adjacent buildings on the northern side of Russell Square, to provide a new home for the École Jeannine Manuel. As part of this, an existing modern extension at the rear will be replaced by a new dance studio and assembly/dining hall.

The site is located within the administrative area of London Borough of Camden (LBC), which is responsible for the management of local air quality. The entire borough has been declared an Air Quality Management Area (AQMA) for exceedance of the annual mean objective for nitrogen dioxide (NO_2) and the 24-hour mean objective for fine particulate matter (PM_{10}).

Local Authority Consultation

From previous experience in Camden, we understand that bespoke advice is not usually provided to consultants. A review has therefore been undertaken of the Camden Planning Guidance for Air Quality (March 2019), which enables the type of assessment required to be determined.

Local Air Quality

A review of the 2019 Annual Status Report (ASR) for LBC (the latest report available on its website) indicates that the entire borough has been declared as an Air Quality Management Area (AQMA). The AQMA has been declared for exceedance of the annual mean objective for nitrogen dioxide (NO_2) and the 24-hour mean objective for fine particulate matter (PM_{10}).

The 2019 ASR provides details of four automatic and 33 non-automatic monitoring locations that were operational in 2019. The closest LBC-operated monitoring locations to the site are an urban background automatic monitor in Russell Square and an urban background NO_2 diffusion tube in Tavistock Gardens. These are both located within 250m of the site. The automatic monitor in Russell Square also measures concentrations of PM_{10} and $PM_{2.5}$.

The 2019 monitoring data for the closest automatic monitor and diffusion tube to the site is detailed in Table 1.

Table 1: 2019 Monitoring Data for Closest Monitoring Locations to the Site

Monitoring Location	2019 Annual Mean Concentration (µg/m³)		
	Nitrogen Dioxide (NO_2)	Fine Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)
Bloomsbury (Russell Square)	32.00	18.00	11.00
Tavistock Gardens (CA10)	33.13	N/A	N/A

Data has also been obtained from the 2018-based default concentration maps provided by Defra on their Local Air Quality Management (LAQM) web pages[1]. The background pollutant concentrations for the appropriate 1km x 1km grid square are detailed in Table 2.

Table 2: Background Air Pollutant Concentrations Obtained from the 2018-Based Defra Default Concentration Maps

Defra Grid Square	2021 Pollutant Concentrations (µg/m³)	
	Nitrogen Dioxide (NO_2)	Fine Particulate Matter (PM_{10})
529500, 182500	36.41	19.34

[1] Accessed at: https://uk-air.defra.gov.uk/data/laqm-background-home

The annual mean air quality objective for both NO_2 and PM_{10} concentrations is 40µg/m^3. The background NO_2 and PM_{10} concentrations in the local area are below this objective. It is understood that the 24-hour mean objective for PM_{10} was exceeded at the London Bloomsbury urban background location on 9 occasions in 2019, which is well below the 35 occasions permitted.

Scope of Air Quality Assessment

LBC has prepared planning guidance on air quality to support the policies in the Camden Local Plan 2017[2]. This provides guidance on the triggers for an air quality assessment.

Table 1 of the LBC guidance has been followed to determine the type of assessment that is considered appropriate for the development. The results of this are set out in Table 3.

Table 3: Air Quality Assessment Triggers

Criteria	Criteria Met?	Discussion
Scale of development	Medium	Floorspace subject to refurbishment and extension is less than 1,000m^2
Area of poor air quality	Yes	Within borough-wide AQMA, although nearby monitoring data suggests that NO_2 and PM_{10} concentrations are below the annual mean and 24-hour mean objectives
Scheme brings sensitive receptors	No	No residential uses are proposed. Although users of the building are likely to be present for more than an hour, there is no information available to suggest that exceedances of the short term (i.e. 24-hour mean) objective for PM_{10} are likely at this location
Scheme brings air quality impacts	No	No significant difference in trip generation expected as a result of the development

These criteria suggest that a basic air quality assessment is considered to be sufficient for the development as the building will remain as an educational facility. In addition, the guidance suggests that an air quality neutral assessment and the consideration of construction and demolition impacts need to be taken into account. Further information on these is included later in this letter report.

[2] London Borough of Camden, Camden Planning Guidance: Air Quality, March 2019

Construction Phase Impacts

The proposals are for the refurbishment and extension of the existing building. A review of relevant guidance has been undertaken to consider the potential for significant effects during the construction phase of the proposed development. The review takes into account guidance from the Mayor of London[3] and the Institute of Air Quality Management (IAQM)[4].

It is considered that, with site-specific mitigation measures in place, there will be a 'not significant' residual effect associated with dust and PM_{10}. Mitigation measures will be included within the Construction Environmental Management Plan (CEMP), which will be prepared for the site.

Operational Phase Impacts

The proposed development does not constitute a change of use. It has been confirmed by the client that no car parking is proposed, due to the central location and the good accessibility of the site in terms of public transport.

Nearby public transport options include:

- Underground services from the Russell Square station which is located approximately 225m away; and
- Bus services which can be accessed from a bus stop directly outside the site on Russell Square. These serve a wide variety of key locations, at a frequency of at least six services per hour.

In addition, good footpaths and street lighting are present along Russell Square and the walking routes to the closest station.

No significant increase in the number of delivery vehicles is expected once operational.

Air Quality Neutral

The proposals are for a refurbishment and extension to an existing building. No car parking is proposed at the site due to nearby public transport links and no significant change to delivery

[3] Mayor of London, Sustainable Design and Construction Supplementary Planning Guidance, April 2014
[4] Institute of Air Quality Management, Guidance on the Assessment of Dust from Demolition and Construction, February 2014

vehicles is expected. In addition, the existing gas-fired boilers that provide heating and hot water will be removed, and instead the development will be connected to the University of London district heating system. As a result, it is not considered likely that there will be a significant change to existing vehicle and building emissions at the premises.

Summary

A review has been undertaken, in accordance with relevant guidance and policy, to consider the potential for air quality impacts during the construction and operational phases of the proposed development. This review suggests that any effects should not be significant and that significant changes to vehicle and building emissions are not expected.

Yours sincerely
for Wardell Armstrong LLP

MATTHEW BARNES
Senior Environmental Scientist (Air Quality)
mbarnes@wardell-armstrong.com

MARK DAWSON
Service Lead and Technical Director
mdawson@wardell-armstrong.com