

1. AIR QUALITY ASSESSMENT - TECHNICAL ADDENDUM

1.1 Introduction

Resource and Environmental Consultants (REC) Ltd was commissioned by Royal London Mutual Insurance Society to undertake an Air Quality Assessment for a proposed mixed-use development at New Oxford Street, Camden. The proposals comprise the demolition of the existing building, at Castlewood House, and construction of a replacement ten storey mixed use building, plus ground and two basement levels, including the provision of retail (Class A1 and/or A3) and office (Class B1) floor space. External alterations to Medius House including partial demolition, retention of the existing façade and two floor extension to provide 20 affordable housing units (Class C3), together with associated highway improvements, public realm, landscaping, vehicular and cycle parking, bin storage and other associated works.

An air quality assessment (REC ref. AQ101830r3) has been submitted to London Borough of Camden (LBoC) as part of a planning application for the proposed development. Comments have been made by the Environmental Health department at LBoC and this Technical Addendum provides a response to the comments.

The relevant responses are detailed below.

2. RESPONSES

2.1.1 Comment 1

"Impact of development on local air quality during operation – Air Quality Neutral Assessment

The applicant has not undertaken an AQ neutral assessment and No detail provided on the impact of the development in its operational phase on air quality.

Further actions for applicant: *the applicant should undertake an Air Quality Neutral Assessment and demonstrate that the development is air quality neutral. alongside the air quality neutral assessment provide detail on any point source emissions/ dispersion of pollutants, and this impact on other sensitive receptors nearby (this includes the residents in nearby buildings) as well as building occupants."*

2.1.2 Response 1

An Air Quality Neutral (AQN) Assessment considering development transport and energy emissions has been carried out and this is included in the updated air quality assessment (REC ref. AQ101830r4). Assumptions were made based on the expected size and number of the boilers required. Upper estimates for the emissions of the assumed boiler standards were used as a conservative assessment. The assessment showed that the air quality neutral benchmarks would not be exceeded. Despite the uncertainties in the boiler emissions at this stage, the margin of compliance with the benchmark levels indicates that similar but alternative detailed energy specifications are unlikely to cause an exceedance of the AQN benchmarks.

As the detailed design and location of the boilers and stack are not currently available it has not been possible to carry out a detailed dispersion model of the emissions to combine with the results of the road transport emissions. This can be provided by condition to inform the specific design of the ventilation and mitigation to ensure that clean air is provided for all relevant units and that nearby sensitive receptors are not significantly impacted upon. It is considered very unlikely that energy emissions for a scheme of this size would individually cause significant impacts however it is agreed that this would need to be confirmed. The mitigation is discussed further below.

2.1.3 Comment 2

"Impact of local air quality on building occupants

Monitoring shows exceedances of NO₂. PM₁₀ is within limits. Exceedances of the 1-hour mean NO₂ objective is predicted across the development site for the proposed development opening year at all floors at the façades of Castlewood House and Medius House facing New Oxford Street and the façade of Medius House facing Dyott Street. Therefore mitigation measures are required. The applicant is proposing mechanical ventilation with inlets positions towards the rear of Medius House at highest possible point, with NO_x filtration. Sealed facades are also proposed at sensitive locations on New Oxford Street and Medius House Dyott Street façade. The report recommends high levels of air tightness but the residential refurb is only just meeting building regulations in regards to air tightness.

Further actions for applicant: *It is not clear if mitigation measures are also proposed in the office and retail areas: the short term objective should be applied to office and retail areas."*

2.1.4 Response 2

Due to the exceedance of the 1-hour mean NO₂ air quality objective (AQO), mitigation measures are required to ensure the clean air is provided for the office and retail elements of the proposal. However, due to the open plan nature of the office and retail units it may not be necessary to provide ventilation to these areas as acceptable air could be

provided by openable windows at locations where the AQO is not predicted to be exceeded. The exact detail of this can be provided when the final energy emissions have been assessed.

The air tightness specifications for the windows at residential dwellings where mechanical ventilation is required are recommended to achieve a performance specification of 5 m³/hr/m².

2.1.5 Comment 3

Details of the mechanical ventilation system and filters should be secured through condition:

"Mechanical Ventilation

Prior to commencement of development (excluding demolition and site preparation works), full details of the mechanical ventilation system including air inlet locations, details confirming that an appropriate NO₂ filtrations system on the mechanical ventilation intake has been installed, shall be submitted to and approved by the local planning authority in writing. Air inlet locations should be located away from busy roads and the boiler stack and as close to roof level as possible, to protect internal air quality. The development shall thereafter be constructed and maintained in accordance with the approved details.

Reason: To protect the amenity of residents in accordance with DP26, London Plan policy 7.14. To safeguard the amenities of the adjoining premises and the area generally in accordance with the requirements of policies CS5 and CS7 of the London Borough of Camden Local Development Framework Core Strategy and policies DP12, DP26 and DP28 of the London Borough of Camden Local Development Framework Development Policies."

2.1.6 Response 3

This can be confirmed following detailed design of the energy provisions and based on the considerations discussed above.

2.1.7 Comment 4

"Impact of development on local air quality - dust impacts during construction

the potential risk of dust soiling is high for demolition, low for earthworks, medium for construction and negligible from trackout. The potential risk of human health impacts is medium for demolition, low for construction and negligible for earthworks and trackout activities. Following mitigation measures the residual impact is predicted to be not significant. Mitigation measures to control construction related air quality impacts should be secured within the CMP as per the standard CMP pro-forma. The applicant will be required to complete the checklist and demonstrate that all mitigation measures relevant to the level of identified risk are being included. Air quality monitoring should also be implemented on site with the following condition wording:

Air quality monitoring should be implemented on site. No development shall take place until full details of the air quality monitors have been submitted to and approved by the local planning authority in writing. Such details shall include the location, number and specification of the monitors, including evidence of the fact that they have been installed in line with guidance outlined in the GLA's Control of Dust and Emissions during Construction and Demolition Supplementary Planning Guidance and have been in place for 3 months prior to the proposed implementation date. The monitors shall be retained and maintained on site for the duration of the development in accordance with the details thus approved."

Reason: To safeguard the amenities of the adjoining premises and the area generally in accordance with the requirements of policies CS5 (Managing the impact of growth and

development) and CS16 (Improving Camden's health and wellbeing) of the London Borough of Camden Local Development Framework Core Strategy and policies DP32 (Air quality and Camden's Clear Zone)

2.1.8 Response 4

This is considered to be an acceptable request for a planning condition.

Note prepared by Conal Kearney, Principal Air Quality Consultant at REC Ltd, 22nd March 2017