


# 2020/5593/P 330 Gray's Inn Road – AQC Response to Council Comments on Air Quality dated 8-3-21

Camden Comment	AQC response
<p><b>Issue 1:</b> The list in Appendix A11 does not include <i>all</i> of the measures which are highly desirable for high risk sites from Appendix 7 of the GLA Dust and Emissions SPG July 2014. In addition this should clearly note the requirement from the CPG Air Quality which states that high risk sites should include at least four real time dust monitors and that monitors should be in place at least 3 months before commencement. <b>ACTION: Mitigation should include all Highly desirable measures for high risk sites as a minimum. In addition a Condition is recommended.</b></p> <p><b>Construction related impacts - Monitoring</b>  <i>Air quality monitoring should be implemented on site. No development shall take place until</i></p> <p><i>a. prior to installing at least 4 monitors, 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 will be installed in line with guidance outlined in the GLA's Control of Dust and Emissions during Construction and Demolition Supplementary Planning Guidance;</i></p>	<p><b>Mitigation Measures</b></p> <p>The only measures listed for High Risk sites that have not been included in the Air Quality Assessment, are those related to haul routes. These have been excluded because the site is small with no haul routes and therefore these measures are not applicable.</p> <p><b>Monitoring condition</b></p> <p>Contrary to the assertion that 4 monitors <u>should</u> be used for a High Risk site, it is noted that the Camden SPD actually states that “Medium risk schemes usually require a minimum of two real time monitors, while high risk schemes usually require four.” The Mayor’s SPD specifies a minimum of 2 monitors for high risk sites during construction. However, if there are site specific reasons why 4 monitors are required for this development and appropriate locations identified, then they can be supplied.</p> <p>The IAQM Guidance on Construction Dust Monitoring (which the Mayor’s SPG references) does not require baseline monitoring and makes clear that, “<i>In most situations, baseline monitoring may not be required, e.g. in some urban areas where there is a large existing body of monitoring data (and where these sites are expected to continue to operate throughout the duration of the construction works).</i>”</p> <p>There is a lot of long-term dust monitoring on-going in the Euston area and other sites. If there are specific reasons baseline monitoring data are required for this site, then it can be provided. However, it may not be possible to monitor in the same location after works have commenced on</p>

Camden Comment	AQC response
<p><i>b. prior to commencement, evidence has been submitted demonstrating that the monitors have been in place for at least 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.</i></p> <p><i>Reason: To safeguard the amenity of adjoining premises and the area generally in accordance with the requirements of policies A1 and CC4 of the London Borough of Camden Local Plan Policies.</i></p>	<p>site. There may also be difficulties in providing power to monitors prior to works commencing on site.</p>
<p><b>Issue 2:</b> Particularly given the poor air quality in the area, the applicant should justify the proposed size of the generators and alternative technologies to diesel should be fully considered. Further information is required on the location of the flues and dispersion of any emissions. <b>ACTION: Further information required</b></p>	<p>The relatively large size of the generators, and the electrical load of the development as a whole, is driven by the gas-free heat strategy. We have selected an all-electric heating strategy which eliminates all on-site combustion emissions under normal circumstances but means that the building is more reliant on the electrical supply to remain operational. Therefore, the standby generator has been sized such that the office and hotel buildings can remain operational and habitable in the event of a mains power failure. Whilst the generator is larger than a traditional development of this nature would be, the overall emissions and impact on air quality is greatly reduced. Under normal circumstances the generators will only operate once a month when they are tested for less than 30 minutes. This is compared to a combustion heating system which would likely to be in continuous operation.</p> <p>Diesel-free standby generator alternatives are not considered viable due to the increased cost, complexity and space requirements. Battery storage would be the most mature alternative but due to the energy storage density of batteries the space requirements would be excessive compared to the equivalent diesel fuel tank. The capital cost of batteries is also much larger and they would need to be replaced several times over the life of a single diesel generator. Emergencies that require the generators to be used are incredibly infrequent.</p>

Camden Comment	AQC response
	<p>The generator flues will be located on top of the generators. They can be oriented in the preferred direction and could be fitted with a nozzle termination to increase the exhaust gas velocity and improve dispersion.</p>
<p><b>Issue 3:</b> The assessment provides no information on the current emissions from the existing flues or potential locations of the relocation and therefore this has not been fully considered in the assessment. <b>ACTION: Further information is required.</b></p>	<p>The flues serve fume cupboards within the Ear Institute building. Detailed work is on-going with the Ear Institute and RWDI to determine the most appropriate site for the relocated flues. This includes consideration of impacts upon both 330 Gray's Inn Road and existing receptors in the area.</p>
<p><b>Issue 4:</b> The mitigation proposed is inadequate to protect the amenity of residents in the residential block on Swinton Street in accordance with policy CC4 of the Local Plan. <b>ACTION: There are grounds for refusal on air quality</b></p>	<p>In accordance with the air quality positive approach to design, advocated in the London Plan, the scheme has been designed to minimise exposure of residential receptors to poor air quality. Air quality modelling of concentrations across the development site was completed to inform the layout. This includes location of residential receptors at maximum distance from Gray's Inn Road to minimise exposure to poor air quality.</p> <p>The layout of the properties on Swinton Street has been designed so that the communal access deck is located on the Swinton Street façade. As shown in the plan enclosed at the end of this document, only 2 residential properties on each floor will have a façade onto Swinton Street, however, these properties will be dual aspect with balconies onto the courtyard area.</p> <p>The air quality assessment has demonstrated that annual mean nitrogen dioxide and PM<sub>10</sub> concentrations within the courtyard area will be acceptable (below both UK objective and WHO guidelines). It will be possible to ventilate all properties on Swinton Street via MVHR air intakes and opening windows on the courtyard façade.</p> <p>It is not possible to seal the Swinton Street façade, as this is where the doors to access the dwellings are located. It would only be necessary to open the windows on this façade to provide short-term purge ventilation – for example whilst painting or on a small number of very hot days per year. Adequate air quality can be provided to these properties without sealed windows. Sealing windows would provide a lower level of amenity and require air conditioning which would</p>

Camden Comment	AQC response
	<p>increase both the carbon emissions due to increased energy use and financial cost to the tenants. This approach also conflicts with the ventilation hierarchy set out in the London Plan.</p> <p>PM<sub>2.5</sub> concentrations are below the UK objective, but exceed the WHO guideline across the development. This guideline is exceeded throughout Greater London, including background locations in outer London, such as Bushy Park, Teddington.</p> <p>All MVHR systems require filtration to remove dust from the system. However, there is a significant carbon cost associated with using fine filters that remove a high percentage of PM<sub>2.5</sub>. This is because more energy is required to achieve the required air flow through the system. This conflicts with other aspects of Camden and London policy that aim to minimise energy use associated with heating and cooling.</p> <p>The layout of the development has been designed to minimise the impacts of air pollution upon future occupants. For all properties, the day to day ventilation requirements can be served from the courtyard façade without the need to open windows on the Swinton Street façade.</p> <p>Filtration of particulate matter (both PM<sub>10</sub> and PM<sub>2.5</sub>) may be necessary to achieve BREEAM and WELL standards. However, at this stage in the design process, it is not possible to specify requirements; although this will be a key consideration at the next stage of the design.</p> <p>Air tempering rather than comfort cooling will be provided, further details are provided in the energy response.</p> <p>Policy CC4 states that, “developments that introduce sensitive receptors (i.e. housing, schools) in locations of poor air quality will not be acceptable unless designed to mitigate the impact.” The development has been designed to mitigate the impact and is thus consistent with policy CC4 and there are no grounds for refusal.</p>
<p><b>Issue 5:</b> Modelling is incomplete with no receptor location identified for the office façade on Swinton Street and no modelling from Ground to Floor 3 on Swinton Street. Mitigation (such as MVHR with</p>	<p>Although specific model results have not been provided for these locations, an indication of the concentrations can be inferred from the results presented in Tables A6.1 and A6.2. Concentrations at the lower floors on Swinton Street, will be above those on the 4<sup>th</sup> floor on Swinton Street (i.e.</p>

Camden Comment	AQC response
<p>PM<sub>2.5</sub> filtration, sealed facades and winter gardens) should be considered where appropriate. <b>ACTION: Further information required</b></p>	<p>above the UK objective for NO<sub>2</sub>, below UK objectives for PM<sub>10</sub> and PM<sub>2.5</sub> but above the WHO guideline for PM). As a maximum, concentrations at ground-floor on Swinton Street would be no higher than those modelled at the ground-floor of the hotel façade on Grays Inn Road (Table A6.2).</p> <p>Mitigation will be provided to the office accommodation. The air intake for the ventilation system will be located on the roof of the 8<sup>th</sup> floor, where concentrations will be close to background concentrations. As demonstrated by the measured concentrations at the Bloomsbury monitor, these background concentrations are well below the air quality objectives, and WHO guideline for PM<sub>10</sub>. The measured PM<sub>2.5</sub> concentration in 2019 was 11 µg/m<sup>3</sup>, which is only marginally higher than the WHO guideline of 10 µg/m<sup>3</sup>. On this basis, there is sufficient information to demonstrate that the mitigation incorporated in the scheme is considered sufficient to provide adequate air quality for occupants of the office accommodation.</p> <p>The mitigation requested is unnecessary and will have financial, energy and amenity costs and conflicts with GLA advice.</p>
<p><b>Issue 6:</b> No consideration has been made to reduce exposure for workers in the offices or hotel (in particular in the lobby) or the residents at the hotel. <b>ACTION: Further information required.</b></p>	<p>Neither policy CC4 nor the Camden SPD make specific reference to consideration of exposure of workers in offices or hotels. The SPD does, however, reference the London Local Air Quality Management Technical Guidance with respect to exposure. This guidance explicitly states that <i>“Objectives should not generally apply at.... Building façades of offices or other places of work where members of the public do not have regular access.... Hotels, unless people live there as their permanent residence.”</i></p> <p>Mitigation is provided for office workers, as described in relation to Issue 5.</p> <p>Air intakes for the hotel will be located at high level on the roof, where air quality would be acceptable (see Issue 5). Air conditioning would be provided to all rooms with no reliance on opening windows.</p> <p>Air intakes for the lobby will be from Wicklow Street, where air quality has been demonstrated to be adequate. The air intake for the café area will be located on Gray’s Inn Road.</p>

Camden Comment	AQC response
	The proposed ventilation system is considered appropriate to reduce exposure for workers in the offices and hotel.
<p><b>Issue 7:</b> Consideration should be made to reduce exposure of the residents in the hotel. Due to the poor air quality the hotel accomodation the hotel must not be used for temporary accomodation or long term stays. <b>ACTION: Condition recommended</b></p> <p><i>No long term accomodation in hotel:</i></p> <p><i>Due to the poor air quality in the area, the hotel accomodation must be used for short stays only should not be used for temporary accomodation or long term stays.</i></p> <p><i>Reason: To protect the amenity of residents in accordance with London Borough of Camden Local Plan Policy CC4 and London Plan policy 7.14.</i></p>	<p>As described in relation to Issue 6, consideration has been given to exposure of residents in the hotel and a number of measures have been incorporated in the development to minimise exposure to poor air quality.</p> <p>Consideration has been given to exposure of people using the hotel café which is the only area ventilated from Gray’s Inn Road. As shown in Table A6.2 concentrations are within short-term exposure, which are appropriate with respect to time periods that people are likely to spend in that area.</p> <p>Following both Defra guidance and London Local Air Quality Management Technical Guidance (as referenced in the Camden SPD), guests would need to be in place for 6 months or more for this to be a reasonable request. Notwithstanding, this is considered an unnecessary and onerous condition that we have not seen imposed on other central London hotel developments and is likely to have an impact on the ability to let the hotel.</p>

**Penny Wilson**  
**Associate Director**  
**23<sup>rd</sup> March 2021**

# 7.0 Architectural Design : Residential

## 7.6 Swinton Street Building : Arrangement

### Intermediate Lateral Apartments

Gallery access has been designed to limit the number of apartments to three with a security control point at the core. The apartments are all through or triple aspect with living and kitchen spaces arranged in open plan across the depth of the apartment with bedrooms facing out over the garden and away from the busy street.



A gallery accessed building



Setback upper level with access to roof terraces



Typical mid level floor with 1 & 2 bed apartments