TECHNICAL NOTE

Job Name: Oxford Technology Park Hotel

Job No: 41667

Note No: AQ001

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Prepared By: G.Harker

Subject: **Air Quality Implications of Proposed Hotel Use**

Item	Subject
1.	**Introduction** Hill Street Holdings received outline planning approval in 2016 for a New Build Technology Park comprising 40,362 sq.m. of office, research and development, laboratory, storage and ancillary space. It is now proposed to submit a full planning application for Unit 2 of the development to be used as a hotel and ancillary restaurant. An Air Quality Screening Assessment was prepared by Peter Brett Associates for the outline planning application (2014 AQSA), and this was followed up in 2016 by an Air Quality Assessment to answer planning conditions 12 and 14 of the outline planning permission (2016 AQA). This Technical Note examines the air quality implications for the proposed hotel and restaurant development within the Oxford Technology Park site.
2.	**Suitability of the Site for the Proposed Use** The 2016 AQA did not consider the suitability of the site for the proposed use as it was for employment use only, with no members of the public regularly present on site. Should Unit 2 be changed to a hotel and restaurant, there is the potential for relevant exposure to short term pollution in line with the guidance provided in Defra Technical Guidance TG(16). In accordance with Box 1.1 of TG(16), the 24-hour mean PM_{10} objective and 1 hour mean nitrogen dioxide objectives would apply for a hotel site (assuming that people did not 'live' in the hotel). The relevant objectives are shown below.

Pollutant	Time Period	Objective
Nitrogen dioxide (NO_2)	1-hour mean	200µg/m^3 not to be exceeded more than 18 times a year
Particulate matter (PM_{10})	24-hour mean	50µg/m^3 not to be exceeded more than 35 times a year

DOCUMENT ISSUE RECORD

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	Analysis of long term monitoring data suggests that if the annual mean NO_2 concentration is less than 60µg/m^3 then the one-hour mean NO_2 objective is unlikely to be exceeded where road transport is the main source of pollution. In a similar way, the annual mean PM_{10} concentration can be used as a screening criteria to assess compliance with the PM_{10} short term objective. An annual mean concentration of 32µg/m^3 is equivalent to the 24-hour mean objective of 50µg/m^3 being exceeded 35 times per year. The development site is not close to major roads, and as shown in the 2016 AQA, measured annual mean nitrogen dioxide concentrations at Langford Lane are well below the annual mean objective of 40µg/m^3 (21.9µg/m^3 in 2015). Concentrations within the development site will be lower than those at the monitoring location on Langford Lane due to the relative distance to the road. Pollutant concentrations will be closer to the Defra background concentrations for the site, as shown in Table 4.2 of the 2016 AQA. For grid 447_214 the 2015 annual mean nitrogen dioxide and PM_{10} background concentrations are 11.4 and 16.8µg/m^3 respectively. For both nitrogen dioxide and PM_{10} therefore, the annual mean concentrations are well below the level at which the short term objectives would be in danger of being exceeded. The site can be considered suitable for the proposed use as a hotel and associated restaurant without the need for mitigation against poor air quality.
3.	**Impact of Development Traffic** The Transport Statement for the proposed hotel use (2017 TS) demonstrates that the proposed hotel and restaurant use will generate a reduced number of overall trips compared to the consented B1(a) use. The change of use will therefore have a beneficial effect on local air quality compared to the consented use. The consented use has two electric vehicle charging points per building and it is proposed to install two electric vehicle charging points for the revised development.
4.	**Conclusions** The site is suitable for use as a hotel and associated restaurant without the need for mitigation against poor air quality. The change of use from B1(a) will have a beneficial effect on local air quality by reducing traffic generation from the development. The provision of electric vehicle charging points is to be retained from the consented use.