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14 May 2018

Our Reference:

325/AQ_assessment/Oxford_Road_Update_note

Air quality - Supporting document to 'Air Quality Assessment for the proposed development at 118a Oxford Road & 2 Bedford Road Reading'

Aether completed an air quality assessment to support the proposed development at 118a Oxford Road & 2 Bedford Road in May 2017. This assessment used dispersion modelling in ADMS to determine the relative impact of the development on surrounding air quality and the exposure of residents to poor air quality in respect to the national air quality objectives set for nitrogen dioxide (NO₂) and particulate matter (PM₁₀) in the UK Air Quality Strategy¹. The assessment included estimations of the air quality surrounding the development in the expected year of completion, 2019. The assessment also verified the dispersion model via predicting the concentrations at two nearby diffusion tubes sites, using monitored data from Reading Borough Council in 2015.

The results of the assessment indicated that annual mean NO₂ concentrations were below the national objective in the 'without' and 'with' development scenario, at all residential locations of the development. Concentrations of PM₁₀ were also predicted to be below the annual mean objective in the 'without' and 'with' development scenario. Based on the evidence, it was also estimated that there will be no exceedances of either short term objective for NO₂ or PM₁₀. Therefore, there was no requirement for mitigation as concentrations are determined to be sufficiently below the annual mean NO₂ objective for the residential component of the development, located from the first floor upwards. The assessment concluded that the impact of the development on local annual mean NO₂ concentrations is likely to be 'negligible', in accordance with the significance criteria set out in the Environmental Protection UK's Air Quality Guidance Document².

Aether have recently been advised that the scheme has since been revised, and significantly reduced in scale. The development now only includes the demolition of the existing public house at 2 Bedford Road, and no longer incorporates the existing retail unit found at 118a Oxford Road. The number of residential units has been reduced from thirteen to six, spread above a ground floor retail unit. The development continues to have no car parking spaces and no communal air pollution emitting on-site energy generation.

Since the completion of the assessment, the concentrations of NO₂ at the two verification sites used in the original assessment, '10 Trinity Place' and '165 Oxford Road', are available for 2016³. These concentrations

¹ The Air Quality Strategy for England, Scotland, Wales and Northern Ireland (2007), Published by Defra in partnership with the Scottish Government, Welsh Assembly Government and Department of the Environment Northern Ireland

² <http://www.iaqm.co.uk/text/guidance/air-quality-planning-guidance.pdf>

³ 2017 Air Quality Annual Status Report, Reading Borough Council, (2017), Available at:

http://www.reading.gov.uk/media/6388/Air-Quality-Annual-Status-Report/pdf/Reading_2017_Annual_Status_Report.pdf

have been compared to the 2015 concentrations used in the assessment, shown in **Table 1** below. No significant change in annual mean concentration is observed between these years.

Table 1 - Concentrations of NO₂ in 2015 and 2016 for diffusion tubes sites in proximity to the development.

Diffusion tube site:	2015 NO ₂ concentration (µg/m ³)	2016 NO ₂ concentration (µg/m ³)	Change between years
10 Trinity Place	30	31	3%
165 Oxford Road	45	44.5	-1%

Due to the fact the original assessment found no issues with air quality surrounding the site relative to the national air quality objectives, the fact the monitoring data for NO₂ surrounding the site has remained constant in recent years and the reduced scale of the revised scheme, the original conclusions of the assessment remain valid.

Regards,



Harry Smith, Consultant