

TECHNICAL NOTE

Job Name: 313 Basingstoke Road
Job No: 46434
Note No: AQ001
Date: 14th May 2019
Prepared By: A. Gomes; F. Kirk-Lloyd
Subject: Air Quality

1. Introduction

- 1.1. Peter Brett Associates LLP (PBA, now part of Stantec), has been commissioned to carry out an assessment of potential constraints related to the re-development of 313 Basingstoke Road, Reading, from a single dwelling to three private flats. A desk top assessment has been undertaken to review the potential for air quality constraints and impacts associated with the re-development.
- 1.2. The proposed development site is located within the administrative boundary of Reading Borough Council (RBC).

2. Local Air Quality Management

- 2.1. RBC has investigated air quality within its area as part of their responsibilities under the Local Air Quality Management regime. RBC has declared an AQMA encompassing Reading Town Centre and areas along the major radial routes, due to exceedances of the annual mean NO₂ objective. The proposed development site is located within the AQMA.

3. Air Quality Monitoring

- 3.1. RBC carries out air quality monitoring at 2 locations in close proximity to the development site, which are described in **Table 1**.

Table 1: Measured Concentrations of NO₂

Site Location	Distance to the Site	Site Type	Annual Mean (µg/m ³)				
			2013	2014	2015	2016	2017
DT13, 495 Basingstoke Road	1.3 km north of the site	R	32	34	31	33	34
DT14, 102 Whitley Street	800 m south of the site	R	36	36	32	29	30
Objective			40				

R = Roadside

- 3.2. The NO₂ measured concentrations at the monitoring locations along Basingstoke Road have been below the objectives between 2013-2017. The monitoring sites are considered representative of the development site and concentrations at the development site are expected to be similar.

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4. Roads Traffic Impacts

Operational Impacts

- 4.1. Environmental Protection UK (EPUK) and the Institute of Air Quality Management (IAQM) have published the 'Land-Use Planning and Development Control: Planning for Air Quality' guidance to ensure air quality is adequately considered in land-use planning and development¹. The indicative criteria for requiring an air quality assessment include:
- a. A change in Light Duty Vehicle (LDV) flows of more than 100 AADT within or adjacent to an AQMA or more than 500 AADT elsewhere.
 - b. A change in Heavy Duty Vehicle (HDV) flow of more than 25 AADT within or adjacent to an AQMA or more than 100 AADT elsewhere.
- 4.2. The above criteria are for when an assessment may be required. If traffic from a development exceeds these levels, then it does not necessary mean that a modelling assessment is necessary, only that air quality impacts of traffic require more detailed consideration.
- 4.3. Traffic flows generated by the proposed development have been predicted by PBA, the project transport consultants.

Table 2: Predicted Net Trip Generation

	AM Peak			PM Peak			12 Hour		
	Arr	Dep	Total	Arri	Dep	Total	Arr	Dep	Total
Existing House	0	1	1	1	0	1	3	3	6
Proposed Flats	1	1	2	1	1	2	7	7	14
Net difference	+1	0	+1	0	+1	+1	+4	+4	+8

- 4.4. The proposed development is expected to generate 14 vehicles trip over a 12 hour period on Basingstoke Road. The daily trip generation is therefore well below the threshold of an increase in 100 AADT in an AQMA for an air quality assessment to be required. The impact from the additional traffic is therefore considered to be not significant and a further assessment is not required.

Site Suitability

- 4.5. The measured concentrations at relevant air quality monitoring locations have been below the objectives over the 2013 – 2017 period (paragraph 3.2). The NO₂ concentrations at the site are expected to be below the objectives and therefore the development site is considered suitable for the proposed development without the need for mitigation.

¹ Moorcroft and Barrowcliffe et al (2017). 'Land-use Planning & Development Control: Planning for Air Quality'. V1.2. The Institute for Air Quality Management, London

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5. Summary

- 5.1. Based on desktop review of the site and existing monitoring data, it is not envisaged that there will be any significant air quality effects as a result of the proposed development and there are no air quality constraints to the deliverability of the site. Overall, it is concluded that there are no air quality constraints to the proposed development.

DOCUMENT ISSUE RECORD

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Peter Brett Associates LLP 10 Queen Square Bristol BS1 4NT

T: +44 (0)117 332 7840 E: bristolairquality@peterbrett.com