
KINGSWAY, BURNAGE - AIR QUALITY TECHNICAL NOTE

Background

Redmore Environmental Ltd was commissioned to undertake an Air Quality Assessment¹ in support of a planning application (reference: 141306/FO/2024) for a residential development on land off Kingsway, Burnage. This considered potential air quality impacts as a result of the construction and operation of the proposals, as well as the potential exposure of future residents to poor air quality. The assessment was submitted to Manchester City Council (MCC) in October 2024 in support of the scheme.

Following submission of the assessment, MCC requested a Technical Note² to address the Department for Environment, Food and Rural Affairs (DEFRA) recently published interim planning guidance for particulate matter with an aerodynamic diameter of less than 2.5µm (PM_{2.5})³. This is provided below.

Interim Planning Guidance for PM_{2.5}

Interim Planning Guidance⁴ on the consideration of the PM_{2.5} targets identified in the Environment Act (2021) in planning decisions has been produced by DEFRA. This requires evidence that the key sources of air pollution within a development have been identified and appropriate action to minimise PM_{2.5} and its precursors as far as is reasonably practicable be provided in support of planning applications. To assist the process, two questions and associated considerations are provided. These are summarised in Table 1, along with the development response.

¹ Air Quality Assessment - Kingsway, Burnage, 6593r2, Redmore Environmental, 2024.

² Email Correspondence. Rob Griffin, MCC, 2024.

³ <https://uk-air.defra.gov.uk/pm25targets/planning>.

⁴ <https://uk-air.defra.gov.uk/pm25targets/planning>.

Table 1 Interim Planning Guidance Questions

Question	Response
How has exposure to PM_{2.5} been considered when selecting the development site? • Site proximity to people (particularly large populations and/or vulnerable groups, e.g. schools, hospitals, care homes, areas of deprivation) and the impact of the development on these • Site proximity to pollution sources and the impact of these on users of the development • Exposure and emissions during both construction and in-use	The site is located 30m west of Mauldeth Road Primary School. As outlined in Table 17 of the Air Quality Assessment⁵, a number of mitigation measures will be used throughout the construction phase in order to reduce fugitive dust emissions as far as practicable. This will help control potential increased exposure of PM_{2.5} for users of Mauldeth Road Primary School As outlined in Section 5.3 of the Air Quality Assessment⁶, the development is predicted to result in a reduction in vehicle movements from the site when compared to the existing use. This will reduce road vehicle exhaust emissions within the vicinity of the site and with associated reductions in PM_{2.5} concentrations at Mauldeth Road Primary School, as well as other sensitive locations No other schools, hospitals or care homes are located within the vicinity of the site The site is located adjacent to the A34 and associated road vehicle emissions. The potential for exposure of future residents to elevated pollutant levels was therefore considered. As shown in Section 5.3 of the Air Quality Assessment⁷, PM_{2.5} levels at the building façade were predicted to be below the Interim Target. Slight exceedences of the Concentration Target were predicted. However, ambient levels will reduce across the proposed development site by the compliance year of 2040 due to relevant national strategies to ensure achievement of the relevant regulatory requirements throughout the country

⁵ Air Quality Assessment - Kingsway, Burnage, 6593r2, Redmore Environmental, 2024.

⁶ Air Quality Assessment - Kingsway, Burnage, 6593r2, Redmore Environmental, 2024.

⁷ Air Quality Assessment - Kingsway, Burnage, 6593r2, Redmore Environmental, 2024.

Question	Response
What actions and/or mitigations have been considered to reduce PM_{2.5} exposure for development users and nearby receptors (houses, hospitals, schools etc.) and to reduce emissions of PM_{2.5} and its precursors? • Site layout • The development's design • Technology used in the construction or installed for use in the development • Construction and future use of the development	A number of mitigation measures have been incorporated into the design of the scheme in order to reduce PM_{2.5} exposure for future residents. These include the following: • Residential units are set back from the A34 and associated emissions, with amenity space bordering the road. This increases the distance between the pollution source and the receptors • Trees will be retained sporadically along the site boundary fronting the A34. This will provide screening from potential vehicle exhaust emissions In order to reduce emissions of PM_{2.5} with associated impacts at nearby receptors, the following measures have also been included: • Provision of at least one cycle space per unit • Provision of a sustainable travel information pack to residents • Promotion of active travel and public transport use • Promotion of sustainable car use • Provision of an annual sustainable travel newsletter It is proposed to use Air Source Heat Pumps and Waste Water Recovery Systems for the provision of heating and hot water, respectively. These do not result in PM_{2.5} emissions Further to the above, in order to reduce emissions during the construction phase, a number of mitigation measures will be used to minimise dust generation from associated activities

Based on the responses provided in Table 1 and the assessment results, as outlined in Section 5.3 of the Air Quality Assessment⁸, it is considered that the development has identified key sources of air pollution and taken appropriate action to minimise emissions of PM_{2.5}.

Technical Note produced by Natasha Jones, Air Quality Consultant, Redmore Environmental, on 3rd December 2024

⁸ Air Quality Assessment - Kingsway, Burnage, 6593r2, Redmore Environmental, 2024.