

Subject: FW: Land adjoining 4 Providence Hill - ref. F/24/97312

From: Waite, Oxana <oxana.waite@eastleigh.gov.uk>
Sent: 28 October 2024 11:17
To: Altman, Rebecca <rebecca.altman@eastleigh.gov.uk>
Subject: RE: Land adjoining 4 Providence Hill - ref. F/24/97312

Hi Rebecca

A third version of the air quality assessment was reviewed for

Construction of Residential Care Community, comprising a 69-bed care home (Use Class C2) and 5 x 2-bedroom close care cottages (Use Class C3 age restricted), with associated access, internal access road, parking, landscaping and infrastructure (amended description) (updated plans and further information received October 2024).

The development proposed along the current Hamble AQMA, therefore, special care should be taken for existing and future receptor re impacts on air quality. It was noted that various S106 contributions were previously requested, with an exception for air quality. The need for that should be to be discussed further, especially in light that both EU and WHO have now toughened their limits and objectives for air quality levels and objectives for NO₂ and PMs.

The Air Quality Assessment states that there are no predicted exceedances of the NO₂, PM₁₀, and PM_{2.5} AQOs at the Proposed Development ("the proposed development will not have an impact on the air quality of the local area and the impact is considered to be "negligible"). The compliance with Part F of the Building Regulations (2021) was not explored. Assuming this will be reviewed with the building control submission.

The kitchen odour of this major development within the area was not considered either, however, has the potential to cause nuisance and elevate PM levels.

Dispersion modeling was undertaken in ADMS Roads, however, the version was not indicated to verify if the latest one was used. The updated version of the assessment utilising EFT v12.0 (Nov 2023) to calculate traffic emissions and meteorological data from Southampton Airport in 2019. Defra backgrounds were used for the year 2023 with major road sources within the grid square identified and removed from the total background as those within 250 m of any relevant receptors have been explicitly modelled as part of the assessment. The year was amended following previous comments.

The emission factors were mentioned without an indication of the year; hence, could not be verified. Speeds and a conservative approach have been referenced in accordance with LAQM TG22 guidance. However, the traffic count data was factored back to the base year of 2019 and forward to 2026 the earliest opening year for the development, utilising a growth factor of 1.5%. The traffic counts undertaken in 2024 with all road links within 200m of a receptor have been included in the model. However, due to its proximity to the site with 200m buffer, it is unclear if or what junctions were modelled.

4 sensitive receptor locations at the development site and 5 at existing locations located along roads have been modelled. These are predicted to experience the highest concentrations and are closest to the kerb, nearest to the junctions or locations where traffic is stationary, slowed or congested and where appropriate include receptors on both sides of a road to take into account the fact the wind directions are predominately in one direction and the greatest annual mean impacts are generally downwind.

We noticed that discrepancies in some input data, such as traffic data, meteorological data, emissions rates, and background concentrations (the removal of major road sources within the grid square from published background data using NO2_Adjustment_for_NOx_Sector_Removal_Tool_v8.0.xlsb did not result to background concentrations provided in the Assessment) might contribute to the challenges mentioned in model verification.

The representative receptor locations at the application site that have been modelled are not exceeding the Air Quality Standards Regulations air quality objectives/AQAL for NO₂ or particulate matter. The model verification utilised Providence Hill 1, Providence Hill 2 & Providence Hill 3 monitoring locations. The proposed year of occupation (2026) and the baseline are mainly considered as 2023.

Given previous comments, the assessment's inconsistent use of input data across model parameters introduces errors that compromise accuracy. Although feasible with corrections the conclusion in principle, that the proposed development will have a 'negligible' impact "onto already highly trafficked roads", it remains challenging to accept the Assessment as a whole.

At the same time, the Dust assessment identified the site as a "Medium Risk Site" and Dust Emission Magnitude is "Medium" for demolition, earthworks, construction and trackout, where the sensitivity of the area is "High" for dust soiling and site-specific mitigation measures were proposed. This adherence should be confirmed and conditioned accordingly.

Happy to discuss this as well as possible S106 contribution for AQ further.

Kind regards.

Oxana Waite
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