

TECHNICAL MEMO

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To: Kier Construction Ltd

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SUBJECT: PINN RIVER SCHOOL –INITIAL AIR QUALITY STATEMENT

1 INTRODUCTION

Anderson Acoustics Ltd has been commissioned to undertake an air quality assessment for to inform the design and determination of the planning application for the redevelopment of Grangewood School, Fore Street, Pinner, Hillingdon HA5 2JQ to provide a Special Education Needs and Disability school (SEND) (use class F), as well as hard and soft landscaping. The application is to London Borough of Hillingdon (LBH). An air quality statement is to be produced to detail the air quality assessment and the assessment and mitigation measures are to follow the guidance presented in the Institute of Air Quality Management Planning for Air Quality¹.

2 SITE

The site is currently Grangewood school and is surrounded by woodland, Coteford School and further to the south east is residential land use. The site is accessed by Fore Street. The site location and outline is shown in Figure 2.1.

Figure 2.1 Location of proposed development



¹ IAQM. Land-Use Planning & Development Control: Planning for Air Quality. 2017.

3 POTENTIAL AIR QUALITY EFFECTS AND ASSESSMENT METHODOLOGY

The potential air quality effects of the proposed development are from the construction of the proposed development, the introduction of human health receptors from users of the development and the operational effects of the development. The potential effects of demolition, construction and operation of the proposed development are to be considered along with compliance with air quality neutral and positive requirements of the London Plan.

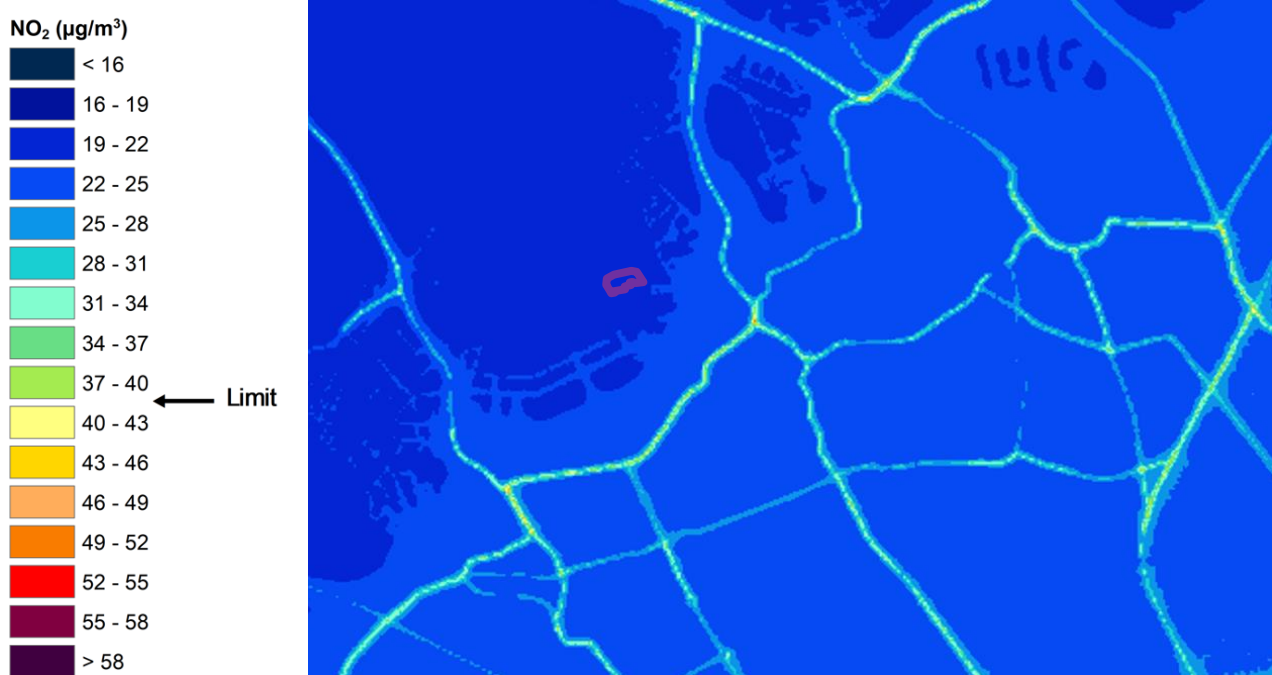
3.1 Site Suitability

The proposed development introduces human health receptors (students and staff of the school) so an air quality assessment following the IAQM Planning for Air Quality methodology, for nitrogen dioxide and particulates has been conducted for site suitability.

The location of the proposed development is not in an Air Quality Management Area or in an area in exceedance of the annual mean NO₂ or annual mean PM₁₀ objective. Annual mean NO₂ concentrations are around 22-25 µg/m³. Annual mean PM₁₀ concentrations at the site are below 22 µg/m³. The London Atmospheric Emissions Inventory 2019 modelled NO₂ concentrations for the site are shown in Figure 3.1.

The Hillingdon 2022 Air Quality Annual Status report has nitrogen dioxide diffusion tube concentrations of below 40 µg/m³ along the road network near the school (HILL32 on Field End Road).

Figure 3.1 Location of proposed development



3.2 Demolition and Construction

Potential demolition and construction dust and air quality effects are to be assessed using the GLA guidance on Control of dust and emissions from demolition and construction². Baseline PM₁₀ concentrations at receptors near the site are low and so main potential effect from construction dust is from dust soiling and the dust sensitivity of the area is High as there are >10 dust sensitive receptors (Coteford School) within 20m of the site.

² GLA. Control of dust and emissions from demolition and construction. 2014.

The Ruislip Woods National Nature Reserve (NNR) virtually surrounds the Site. The woods are also designated as a Site of Special Scientific Interest (SSSI), with parts classified as a Local Nature Reserve (LNR) so ecological receptors are also to be considered.

The dust emission magnitude for demolition, earthworks, construction is Medium and for trackout is Small. During demolition the dust risk is Medium Risk for demolition, earthworks and construction and Low Risk for trackout. Mitigation measures for the site risk are to be applied and with the dust management plan in place the potential effects from the demolition and construction are considered as Not Significant.

3.3 Road Traffic Emissions

The proposed development increases the size of the school and as such the number of vehicle movements increases. The Annual Average Daily Traffic (AADT) associated with the proposed development is 336 and the current use has an AADT of 176. There is therefore an increase of 160 AADT. This is below the IAQM screening criteria of 500 AADT for areas outside of an AQMA and areas of exceedance. With the split of traffic flow the 100 AADT criteria for the AQMA in London Borough of Harrow is unlikely to be exceeded. Given the expansion of the school consideration is to be given to the additional minibuses being electric charging.

3.4 Air Quality Neutral and Positive

The proposed development is to use electric boilers or air source heat pumps for space and water heating for the buildings. Building emissions are therefore below the screening criteria for assessment though air quality neutral and positive is to be conducted for transport emissions and mitigation measures proposed.

4 SUMMARY

An air quality assessment for the planning application for the redevelopment of Grangewood School, Fore Street, Pinner, Hillingdon HA5 2JQ to provide a Special Education Needs and Disability school (SEND) (use class F), as well as hard and soft landscaping. The application is to London Borough of Hillingdon (LBH). The initial finding of the air quality assessments are:

- The NO₂ and PM₁₀ annual mean concentrations at the site are well below the limit values and the site is considered suitable for school use;
- The Annual Average Daily Traffic change of 160 is below the criteria for “Detailed” assessment of effects outside of an AQMA or area of exceedance and so the effect can be considered as Not Significant;
- Air Quality Neutral and Positive assessment is to be made for the proposed development and emissions mitigation is also to be proposed through a green travel plan, electric vehicle charging points and green infrastructure
- Construction of dust and air quality assessment following GLA guidance on the control of dust from demolition and construction procedures indicate the site is Medium Risk for dust soiling and a dust management plan with mitigation measures is being produced and with the measures in place the dust risk is Not Significant.