

Air quality at Abacus Belsize Primary

Abacus Belsize Primary School is committed to ensuring none of its children, teachers, staff, visitors or neighbours are exposed to the levels of air pollution that are known to have harmful effects on health. That's why modelling and monitoring of the air quality in and around the former Hampstead Police Station site on Rosslyn Hill has played a key part in demonstrating why the site will provide a suitable permanent home for the school.

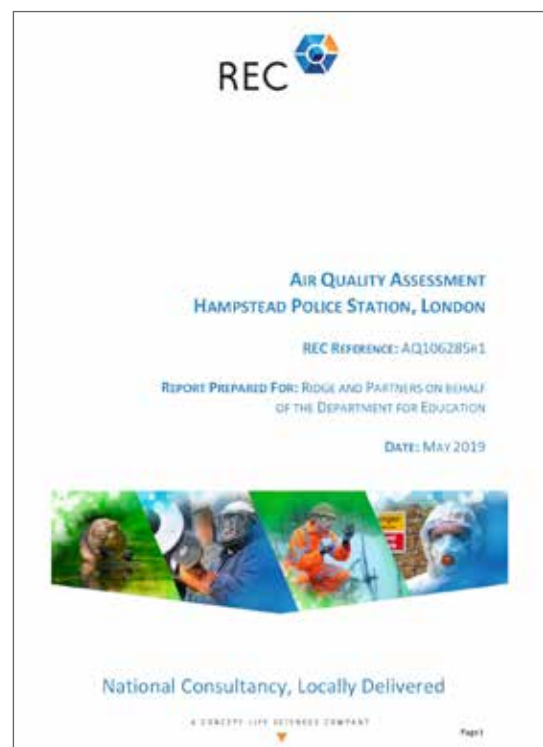
Meeting standards

It is now beyond dispute that air quality is a major influence on public health and everyone understands that exposure to high levels of air pollution can be harmful. Approaches to monitoring and mitigating the impact of pollution on air quality are guided by internationally recognised standards which help planning authorities take air quality into account when making decisions on the suitability of proposals to develop a site or property in their area.

The World Health Organization's Air Quality Guidelines (AQG) are based on an extensive review of air pollutants' impact on human health and feature targets to protect people from both long-term and short-term effects of air pollution. Long-term exposure above these levels is known to have an impact on the respiratory health of children, which is why these measures are used in assessing how far planning proposals meet government's air quality objectives. The UK has adopted these guidelines in an endeavour to maintain the best ambient air quality compatible with sustainable development.

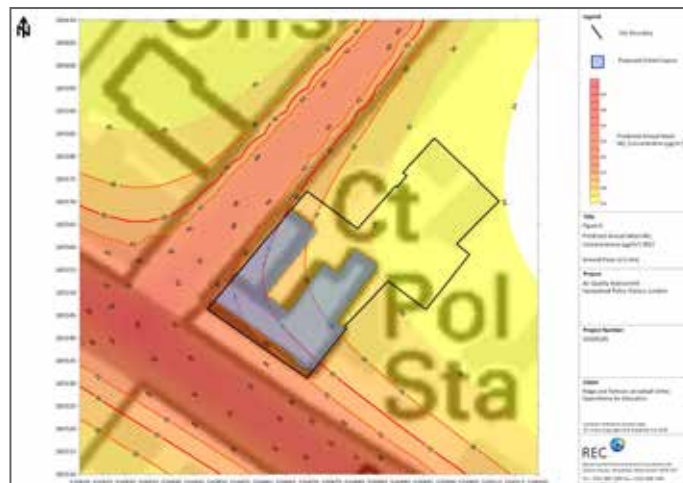
An Air Quality Modelling Assessment was a key part of the planning application to transform the former Hampstead Police Station into a permanent home for Abacus Belsize Primary School close to the community it was established to serve. This assessment quantified pollution levels around and across the site, to consider its suitability for the proposed use as a primary school with outside play areas, and to assess any potential impacts of the construction work that will be required to develop the site.

The modelling assessment, supported by on-site monitoring data, indicates that pollutant concentrations across the playground are well below* the relevant air quality objectives and are typical of background concentrations (away from sources of emissions) experienced in any urban environments such as Greater London, most of which is exposed to the same, or higher, levels.



* 'well below' is defined as exposure to levels less than 75% of the objective (Environmental Protection UK and Institute of Air Quality Management – Land-Use Planning & Development Control: Planning For Air Quality)

The diagram of air quality at ground level around the proposed school site demonstrates how markedly pollution drops off away from the immediate roadside, quickly reaching levels that are well below national objectives for exposure.



Inside and out

Within the building itself, the lower ground, ground, first and second floors will have mechanical ventilation that will make sure that the air that flows into the building comfortably meet targets for air quality.

The windows on the lower ground and ground floor along the Rosslyn Hill façade will also be designed so they cannot be opened, additionally preventing even a trickle of air coming into the building from street level.

Assessments against GLA benchmarks also demonstrate that the plans for the school can be considered as Air Quality Neutral, an aspirational target for any new development and a reflection of the rigorous approach the school has taken to developing the proposals and its green travel plan.

The route chosen for the 'walking bus' that will gather and supervise the children as they travel to and from school on foot, has been deliberately designed to pass through the least busy areas for traffic away from main roads, much-reducing the children's exposure to pollution on their journey.



Once at the school, children in the playground are likely to be exposed to no more pollution than if they were playing in the gardens of neighbouring homes or, according to the GLA's study of schools in the capital (2013), many other primary schools in the borough.

With the reassurance these objective assessments have provided about the air quality in and around the site, the school can now confidently breathe new life into a distinctive historical building that is entirely suitable as its permanent home.