Site Location
Garden House, Vale of Health NW3 1AN

Date of Assessment
Mar-17

This Air Quality & Dust Risk Asssessment is based upon the methodology set out in the Institute of Air Quality Management's (IAQM) 2014 Guidance on the Assessment of dust from demolition and construction.
This assessment also follows the guidance in the the Greater London Authoritiy Supplementary Planning Document (July 2015)

STEP 1 - SCREENING		
1a	Is human receptor site within	
	50 of site boundary	Y
	50 m of the route(s) used by construction vehicles on the public highway, up to 500m from the site entrance(s)	N
1b	Is ecological receptor site within	
	50 of site boundary	Y
	50 m of the route(s) used by construction vehicles on the public highway, up to 500m from the site entrance(s)	N
	IF ANSWERS TO 1A OR 1B ARE 'YES' COMPLETE 1C & COMPLETE ASSESSMENT	
1c	Provide a description of the description of the proposed demolition and construction activities, their location and duration, and any phasing of the development. include: • the proximity and number of receptors; • the specific sensitivity of the receptor(s),eg a primary school or hospital; • the duration for which the sources of dustemissions may be close to the sensitive receptors • in the case of PM10, the local background concentration.	
	The project comprises the refurbishment of an existing two storey, brick built, 1960's house. This includes the creation of a new basement under the existing footprint and the construction of an extension to the back of the house through permitted development. In addition, the works will also include the excavation of a new lightwell to the front of the house, upgrading the thermal performance including replacing windows, recladding the exterior, and general internal refurbishment. The site is located adjacent Hampstead Heath, between rear elevations of the Heath Villa terraces to the West and the Vale of Health pond to the East. The site is accessed only through an existing gated archway on the Vale of Health, down a passage between 12 Heath Villas and Upfleet. Although the building itself is of no architectural importance, it is located in the Hampstead Conservation Area. Due to the constraints imposed by the site access, special consideration must be made for material handling. The works will be carried out entirely by using small plant and equipment capable of being accessed via the narrow entrance gate to the street frontage of the site. All materials and components must be designed of such a size that they can be manually handled either way between the kerbside and site. The nearest human receptors to the site are with 15m of the site in the adjoining buildings within the terrace (No. 7-12 to the north and Nr 14-20 Vale of Health to the South) Other receptors include pedstrians generaly using the Vale of Health. The anticpated density of receptors in the neigbouring propertes. is relatively low an anticpated to be 10-15 receptors with 20m, 25-30 receptors with 50m, 40-60 receptors within 100m. The nearest ecological receptor is Vale of Health Pond approx which adjoines to eastern boundary of the site. The anticipated overall duration of the works is 15 months, of which sources of dust emission may be close to the receptors for 9 months. The LBC Quality Action Plan indicates the background annual mean PM10 levels are in the range 20-27 ug/m3 which is below the annual mean objective level 2016	

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STEP 2 ASSESS THE RISK OF DUST IMPACTS

STEP 2A: Define the Potential Dust Emission Magnitude

Demolition Phase		
2A i	Is the volume of demoltion **Large** •total volume of building to be demolished >50,000m3, or • potentially dusty construction material • (e.g. concrete), or • on-site crushing and screening, or • demolition activities >20m above ground level;	N
	Medium • total volume of building to be demolished 20,000m3 – 50,000m3, or • potentially dusty construction material, or • demolition activities 10-20m above ground level;	N
	Small • total volume of building to be demolished <20,000m3, or • construction material with low potential for dust release (e.g. metal cladding or timber), or • demolition activities <10m above ground demolition during wetter months	Y
Earthworks Phase		
2A ii	Is the scale of the Earthworks **Large** • total site area >10,000m2, • potentially dusty soil type (e.g. clay, which will be prone to suspension when dry to due small particle size), or • >10 heavy earth moving vehicles active at any one time on site, or • Formation of stockpile enclosures • >8m in height; • total material moved >100,000 tonne (where known).	N
	Medium • total site area 2,500m2 – 10,000m2, • moderately dusty soil type (eg. silt), or • 5-10 heavy earth moving vehicles active at any one time, or • formation of stockpile enclosures 4m –8m in height, or • total material moved 20,000 tonnes –100,000 tonnes (where known).	N
	Small • total site area <2,500m2, or • soil type with large grain size (e.g. sand), or • <5 heavy earth moving vehicles active at any one time, formation of stockpile enclosures <4m in height, or • total material moved <10,000 tonnes (where known), or earthworks during wetter months.	Y
Construction Phase		
2A iii	Is the scale of the works **Large** • total building volume >100,000m3, or • piling, or • on site concrete batching; or • sandblasting	N
	Medium • total building volume 25,000m3 – 100,000m3, or • potentially dusty construction material (e.g. concrete), or • on-site concrete batching;	N
	Small	Y

Trackout		
2A iii	Only receptors within 50 m of the route(s) used by vehicles on the public highway and up to 500 m from the site entrance(s) are considered to be at risk from the effects of dust. Will the trackout be:- **Large** • >50 HDV (>3.5t) outward movements in any one day, • potentially dusty surface material (e.g.high clay/silt content), • unpaved road length >100 m;	N
	Medium • 10-50 HDV (>3.5t) outward movements in any one day, • moderately dusty surface material (e.g.high clay content), • unpaved road length 50 m – 100 m (high clay content);	N
	Small • <10 HDV (>3.5t) trips in any one day, • surface material with low potential for dust release, • unpaved road length <50 m.	Y
	STEP 2B: Define the Sensitivity of the Area	
2B i	Sensitivity of People to Dust Soiling Effects (see Table 4.2 for guidance) - **DEMOLITION**	
	Is the location a **High** sensitivity receptor • Users can reasonably expect an enjoyment of a high level of amenity; or • the appearance, aesthetics or value of their property would be diminished by soiling and the people or property would reasonably be expected to be present continuously, or at least regularly for extended periods as part of the normal pattern of use of the land. • Indicative examples include dwellings, museums and other culturally important collections, medium and long term car parks and car showrooms.	Y
	Medium sensitivity receptor • Users would expect to enjoy a reasonable level of amenity but would not reasonably expect to enjoy the same level of amenity as in their home; or • The appearance, aesthetic or value of their property could be diminished by soiling; or • The people or property would not reasonably be expected to be present here continuously or regularly for extended periods as part of the normal pattern of use of the land; • Indicative examples include parks andplaces of work.	N
	Low sensitivity receptor • The enjoyment of amenity would not reasonably be expected; or • Property would not reasonably be expected to be diminished in appearance, aesthetics or value by soiling; or • There is transient exposure, where the people or property would reasonably be expected to be present only for limited periods of time as part of the normal pattern of use of the land. • Indicative examples include playing fields, farmland (unless commercially-sensitive horticultural), footpaths, short-term car parks and roads.	N
	Sensitivity of People to Dust Soiling Effects (see Table 4.2 for guidance) - **EARTHWORKS**	
	Is the location a High sensitivity receptor	Y
	Medium sensitivity receptor	N
	Low sensitivity receptor	N
	Sensitivity of People to Dust Soiling Effects (see Table 4.2 for guidance) - **CONSTRUCTION**	
	Is the location a High sensitivity receptor	Y
	Medium sensitivity receptor	N
	Low sensitivity receptor	N

	Sensitivity of People to Dust Soiling Effects (see Table 4.2 for guidance) - **TRACKOUT**	
	Is the location a High sensitivity receptor	N
	Medium sensitivity receptor	Y
	Low sensitivity receptor	N
2B ii	Sensitivities of People to the Health Effects of PM10 (See Table 4.3 for guidance) - **DEMOLTION**	
	High sensitivity receptor • Locations where members of the public are exposed over a time period relevant to the air quality objective for PM10 (in the case of the 24-hour objectives, a relevant location could be one where individuals may be exposed for eight hours or more in a day). • Indicative examples include residential properties. Hospitals, schools and residential care homes should also be considered as having equal sensitivity to residential areas for the purposes of this	N
	Medium sensitivity receptor • Locations where the people exposed are workers, and exposure is over a time period relevant to the air quality objective for PM10 (in the case of the 24-hour objectives, a relevant location would be one where individuals may be exposed for eight hours or more in a day). • Indicative examples include office and shop workers, but will generally not include workers occupationally exposed to PM10, as protection is covered by Health and Safety at Work legislation	Y
	Low sensitivity receptor • Locations where human exposure is transient. • Indicative examples include public footpaths, playing fields, parks and shopping streets	N
	Sensitivities of People to the Health Effects of PM10 - **EARTHWORKS**	
	Is the location a High sensitivity receptor	N
	Medium sensitivity receptor	Y
	Low sensitivity receptor	N
	Sensitivities of People to the Health Effects of PM10 - **CONSTRUCTION**	
	Is the location a High sensitivity receptor	N
	Medium sensitivity receptor	Y
	Low sensitivity receptor	N
	Sensitivities of People to the Health Effects of PM10 - **TRACKOUT**	
	Is the location a High sensitivity receptor	N
	Medium sensitivity receptor	N
	Low sensitivity receptor	Y
2B iii	Sensitivities of Receptors to Ecological Effects (See Table 4.4 for guidance) **DEMOLTION**	
	High sensitivity receptor • Locations with an international or national designation and the designated features may be affected by dust soiling; or • Locations where there is a community of a particularly dust sensitive species such as vascular species included in the Red Data List for Great Britain. • Indicative examples include a Special Area of Conservation (SAC) designated for acid heathlands or a local site designated for lichens adjacent to the demolition of a large site containing concrete (alkali) buildings.	N
	Medium sensitivity receptor • Locations where there is a particularly important plant species, where its dust sensitivity is uncertain or unknown; or • Locations with a national designation where the features may be affected by dust deposition. • Indicative example is a Site of Special Scientific Interest (SSSI) with dust sensitive features	Y
	Low sensitivity receptor • Locations with a local designation where the features may be affected by dust deposition. • Indicative example is a local Nature Reserve with dust sensitive features	N

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Sensitivities of Receptors to Ecological Effects - **EARTHWORKS**	
Is the location a High sensitivity receptor	N
Medium sensitivity receptor	Y
Low sensitivity receptor	N
Sensitivities of Receptors to Ecological Effects - **CONSTRUCTION**	
Is the location a High sensitivity receptor	Y/N
Medium sensitivity receptor	Y
Low sensitivity receptor	N
Sensitivities of Receptors to Ecological Effects - **TRACKOUT**	
Is the location a High sensitivity receptor	Y/N
Medium sensitivity receptor	Y
Low sensitivity receptor	N

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Summary of Appraisal & Conclsion of Site Specific Dusk Risk

Table 4.1 - Summary of Dust Emission Magnitude for Site

Combine Answers to Step 2a i) ii) & iii)

Activity	Dust Emission Magnitude
Demoltion	Small
Earthworks	Small
Construction	Small
Trackout	Small

Table 4.5 - Summary of Site Sensitivity

Combines Answers to Step 2B i) ii) & iii) with Tables 4.2 - 4.4

Receptor Sensitivity	Sensitivity of Surrounding Area			
	Demoltion	Earthworks	Construction	Trackout
Dust Soiling	High	High	High	Low
Human Health	Medium	Medium	Medium	Low
Ecological	Medium	Medium	Medium	Low

STEP 2C Combine Outputs from Steps 2A & 2B

Combine Answers to Table 4.1 with Table 4.5 and Risk Impacts in Tables 4.6 - 4.9

Summary of Site Specific Dust Risk

Potential Risk	Risk			
	Demolition	Earthworks	Construction	Trackout
Dust Soiling	Medium	Low	Low	Negligible
Human Health	Low	Low	Low	Negligible
Ecological	Low	Low	Low	Negligible