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Condition 27
Control of Dust and Emissions Plan

Proposed New Units
Berrite Estate
Industrial Estate
Iron Bridge Road
Hillingdon

Application Number:
45237/APP/2022/3398

AFA ARCHITECTS AND PLANNERS
REVISION: V1 MARCH/2025

1.0 INTRODUCTION

1.1 This report has been produced to discharge condition 27 - Control of Dust and Emissions Plan of approved planning application 45237/APP/2022/3398.

1.2 **Project Information**

Applicant: Berrite Estate Ltd.

Agent: Mr Ian Williams – AFA Architects & Planners Limited.

Application Number: 45237/APP/2022/3398

Site Address: Berrite Estate Industrial Estate, Iron Bridge Road

Proposal: Replacement of existing warehouses with 3 new warehouses.

1.3 **Condition 27 – (45237/APP/2022/3398)**

No development shall commence until a Control of Dust and Emissions Plan has been submitted to, and approved in writing by, the LPA. This must demonstrate compliance (drawn up accordance with) the GLA Control of Dust and Emissions from Construction and Demolition SPG (or any successor document).

To ensure compliance with London Plan Policy SI 1 and in accordance with Mayor of London 'The Non-road mobile machinery (standard condition recommended by Mayor of London, London Local Air Quality Management Policy Guidance 2019).

1.4 The Control of Dust and Emissions Plan is based on reasonable assumptions for the preliminary construction programme, as well as experience in relation to other development sites of a similar size and nature and the best judgement of construction professionals. Specific measures for dust management may be subject to modification during construction.

1.5 **Site and Surroundings**

1.6 The site is located to the west of central London to the north of Heathrow Airport in the London Borough of Hillingdon. Approximately 1.5 km north of Junction 4 of the M4 motorway and is accessed via the Stockley Road, Horton Road the Iron Bridge Road North crossing the Grand Union Canal leading to Ironbridge Road South which terminates at the main access gates to Berrite Estate Industrial Park.

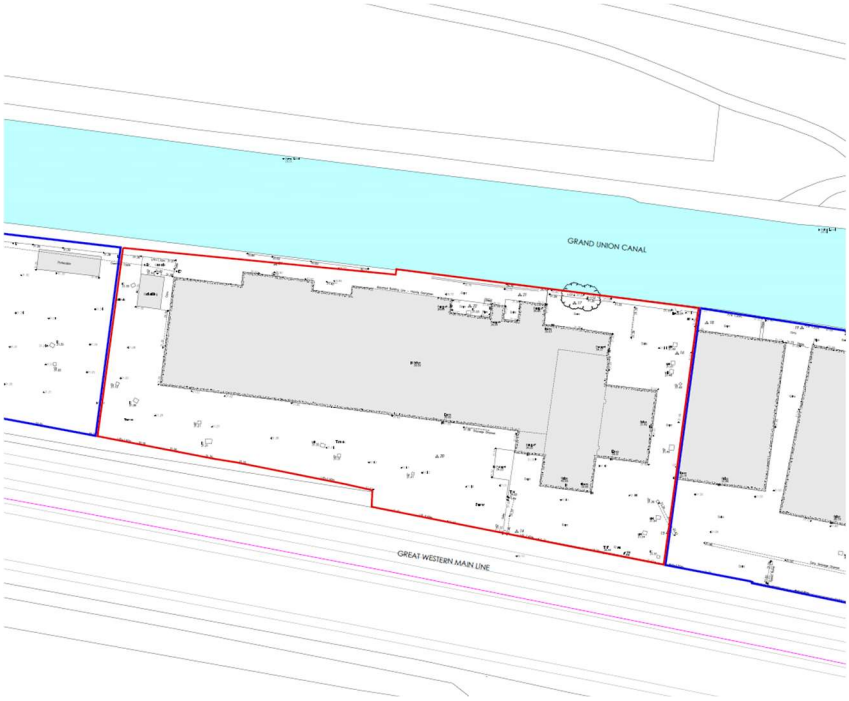
1.7 To the direct north of the site is the Grand Union Canal which bank forms the norther boundary of the site. To the east is the main access to the site, running past a line of existing industrial units which make up Berrite Estate. Directly to the south is the Great Western Main Line railway which forms the southern boundary of the site, and to the west is an open yard.

1.8 The site is predominately flat and made up of concrete hard standing and structures.

1.9 The application site comprises three light industrial units in a series of connected buildings. A significant part of the existing building is made of Asbestos roof & gable features, part of which has been damaged by fire.

1.10 Existing site plan.

1.11

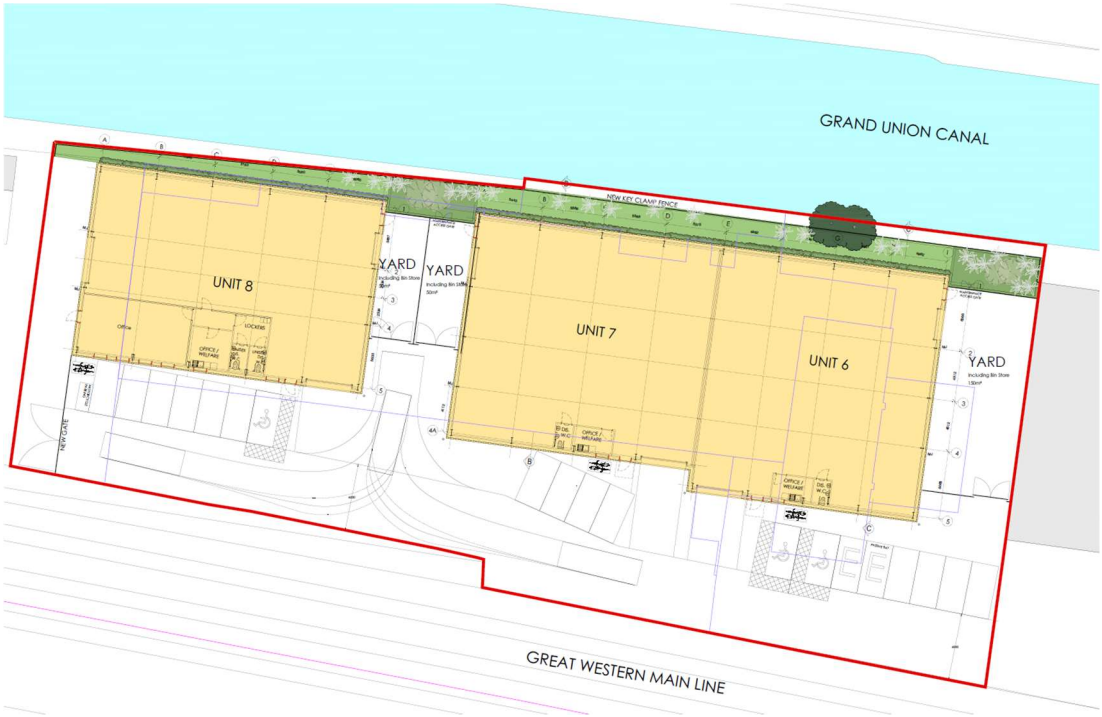


1.12 **The Proposed Development**

1.13 The proposed development of 3 no. replacement industrial units cover a similar area as the existing buildings but has been divided up into three separate buildings separated by yards. The existing gross external area is approximately 1388 m².

1.14 The GIA of the proposed new units is 1,367 m² (Unit 06 - 459 m², Unit 07 - 451 m², and Unit 08 - 457 m²)

1.15 Proposed site plan



2.0 GENERAL

2.1 This report has been developed to be submitted to the Hillingdon Planning Authority to discharge the above-described planning condition. The report will then be issued to the main contractor for their management and implementation.

2.2 This report will form part of the Health and Safety Plan and will be updated as required by circumstances on site.

2.3 The main contractor will be required to take appropriate measures to reduce dust emissions and to protect surrounding dwellings and other key receptors

e.g. railway, canal and the wider Berrite Estate from dust and emissions emitted from the construction works.

2.4 The main contractor will undertake daily visual inspection of dust soiling and dust generation and record in the site log (available for the local authority to view if requested).

2.5 All dust and air quality complaints will be recorded in the Site Agents Diary (This is the general record of events kept on site and is always available for inspection).

2.6 The Contractor will also record any exceptional incidents that cause dust off site events.

2.7 One foreman will be given explicit responsibility for management of dust and will undertake daily visual inspection of dust soiling the public highway and neighbouring properties. Any dust generation will be recorded in the Site Agents Diary.

2.8 Additional inspections will be made when high dust potential activities are being undertaken.

2.9 Ensure all on-road vehicles comply with the requirement of the London Low Emissions Zone standards, where applicable and avoid the use of diesel or petrol powered generators and use main electricity or battery powered equipment, where practicable. Plan site layout so machinery is located away from receptors as far as possible.

2.10 **Canal - Grand Union Canal -** The northern boundary of the site is formed by the Grand Union Canal operated by The Canal & River Trust. An agreement is in place to control all interactions between the canal and the site and a site representative has been appointed to operate the agreement. The Main Contractor will be required to take appropriate measures to avoid dust, debris and runoff from entering the canal. Any work within 3 metres of the CRT ownership will need prior agreement in advance of commencement of the works.

2.11 **Railway: Great Western Main Line -** Directly to the south of the site is the Great Western main line railway operated by Network Rail. A BAPA agreement has been put in place and a copy of which has been provided to the main contractor. The Contractor will be required to take appropriate measures to avoid dust, debris and runoff from entering Networks Rails ownership or affecting rail operation in any way without an agreement in place. Any work within 10 metres of network rails ownership need agreement in advance.

2.12 **Berrite Estate -** The access road which runs through Berrite Estate past the site will be in use throughout construction. The Contractor will be required to take appropriate measures to avoid dust, debris and runoff from entering the access or obstructing the operation of Berrite Estate and its tenants without agreement in advance.

3.0 SITE LAYOUT MEASURES TO CONTROL DUST AND EMISSIONS

3.1 The site layout will:

- A hoarding Line will be provided to the southern and western boundaries of the site to screen out dust from low-level sources affecting the access road and HGV turning area.
- A hoarding line and Debris netting will be place along the canal bank to stop dust and debris entering the canal.
- Full height debris / dust sheeting will be provided to access scaffolding to screen out dust from high-level sources.
- All piling rigs, cranes and gantries and other elements will have appropriate debris/dust sheeting to stop debris or dust entering or moving towards the Grand Union Canal or railway ownerships.
- All stockpiles will be located away from the railway boundary and neighbouring properties. All stockpiles will be securely sheeted when not

in use. Stockpile will be located away from the canal bank.

- Hard surfacing will be provided to the haul routes within the site.
- A wheel washing station for brushing and water spraying of wheels before vehicles leave site will be provided.
- All potential wind driven elements will be securely tied down or sheeted during storage and construction.

4.0 PROCEDURES AND OPERATIONS TO CONTROL DUST

4.1 Site operating procedures will:

- Use of cutting, grinding or sawing equipment not fitted with suitable dust suppression will be prohibited.
- A temporary contractor's water supply will be provided to ensure water for dust suppression is always available.
- Water damping will be used as dust suppressant where applicable with runoff control to avoid it entering the canal or neighbouring sites.
- Chutes, conveyors and skips which are not enclosed or covered will be prohibited.
- Drop heights greater than 1 m. from conveyors, loading shovels and other material handling equipment will be prohibited.
- Sheeting over vehicles transporting dusty materials off and on site will be required.
- Site runoff of mud or water which could cause dust when dried out is to be prevented.
- Any burning on site is prohibited all waste material is to be disposed of responsibly and recycle were possible.

- Any complaints about mud reported to the Contractor will be investigated immediately and cleaned up as required.
- Running of vehicle engines when stationary will be prohibited.
- The site layout will:
- A hoarding will be provided to the Norther, Southern and Western boundaries of the site to screen out dust from low-level sources affecting the Canal, the access road, Network Rail land and the HGV turning area.

5.0 MEASURES FOR SPECIFIC TRADES

5.1 Additional measures for specific trades:

- The existing build will be "soft stripped" to remove all fixtures, fittings and plasterwork before demolition starts. It is recommended that soft strip should take place as a priority before any other activities to prevent the risk of air pollution from arson and vandalism.
- Asbestos removal is to be carried out by a qualified licensed Asbestos removal professional. The existing buildings on site are known to make use of Asbestos in their construction and a Demolition Asbestos survey is available.
- The demolition contract requires the use of hydraulic demolition in preference to percussive techniques.
- The piling contract will require the use of the continuous flight auger method in preference to driven or open bored piles to reduce vibration or spoil.
- The groundworks contract will require the ground-worker to avoid double handling of excavated material, and to cease operations during high winds given the proximity of the railway and canal.

6.0 WHEEL WASHING FACILITIES

6.1 When weather conditions generate mud on the site, a wheel washing station will be set up on the haul route within the site. This will consist of a specific hard surfaced mat with an operative stationed with pressure hose and brush to clean the wheels of all construction traffic. Water is to be kept within the wheel wash limiting runoff.

6.2 The wheel-wash station will be set back far enough from the exit to ensure that mud and water will have drained from each vehicle before it reaches the internal road of Berrite Estate or the public highway.

7.0 APPENDIX 1 – SECTION A2 CONSTRUCTION DUST ASSESSMENT PROCEDURE FROM AIR QUALITY ASSESSMENT

7.1 Extract from Air Quality Assessment by Air Quality Consultants (AQC)dated October 2022 which formed part of this planning application documentation.

7.2 **Construction Dust Assessment Procedure**

7.3 The criteria developed by IAQM (2016), upon which the GLA's guidance is based, divide the activities on construction sites into four types to reflect their different potential impacts. These are:

- demolition;
- earthworks;
- construction; and
- trackout.

7.4 The assessment procedure includes the four steps summarised below:

7.5 **STEP 1: Screen the Need for a Detailed Assessment**

7.6 An assessment is required where there is a human receptor within 350 m of

the boundary of the site and/or within 50 m of the route(s) used by construction vehicles on the public highway, up to 500 m from the site entrance(s), or where there is an ecological receptor within 50 m of the boundary of the site and/or within 50 m of the route(s) used by construction vehicles on the public highway, up to 500 m from the site entrance(s).

7.7 Where the need for a more detailed assessment is screened out, it can be concluded that the level of risk is negligible and that any effects will be 'not significant'. No mitigation measures beyond those required by legislation will be required.

7.8 **STEP 2: Assess the Risk of Dust Impacts**

7.9 A site is allocated to a risk category based on two factors:

7.10 the scale and nature of the works, which determines the potential dust emission magnitude (Step 2A); and

7.11 the sensitivity of the area to dust effects (Step 2B).

7.12 These two factors are combined in Step 2C, which is to determine the risk of dust impacts with no mitigation applied. The risk categories assigned to the site may be different for each of the four potential sources of dust (demolition, earthworks, construction and trackout).

7.13 **Step 2A – Define the Potential Dust Emission Magnitude**

7.14 Dust emission magnitude is defined as either 'Small', 'Medium', or 'Large'. The IAQM guidance explains that this classification should be based on professional judgement but provides the examples in Table A2.1.

7.15 Table A2.1: Examples of How the Dust Emission Magnitude Class May be Defined Class

Class	**Examples …….**
Demolition	
Large	Total building volume >50,000 m^3, potentially dusty construction material (e.g. concrete), on site crushing and screening, demolition activities >20 m above ground level

Medium	Total building volume 20,000 m^3 – 50,000 m^3, potentially dusty construction material, demolition activities 10-20 m above ground level
Small	Total building volume <20,000 m^3, construction material with low potential for dust release (e.g. metal cladding or timber), demolition activities <10 m above ground, demolition during wetter months
Earthworks	
Large	Total site area >10,000 m^2, potentially dusty soil type (e.g. clay, which will be prone to suspension when dry to due small particle size), >10 heavy earth moving vehicles active at any one time, formation of bunds >8 m in height, total material moved >100,000 tonnes
Medium	Total site area 2,500 m^2 – 10,000 m^2, moderately dusty soil type (e.g. silt), 5-10 heavy earth moving vehicles active at any one time, formation of bunds 4 m – 8 m in height, total material moved 20,000 tonnes – 100,000 tonnes
Small	Total site area <2,500 m^2, soil type with large grain size (e.g. sand), <5 heavy earth moving vehicles active at any one time, formation of bunds <4 m in height, total material moved <20,000 tonnes, earthworks during wetter months
Construction	
Large	Total building volume >100,000 m^3, piling, on site concrete batching; sandblasting
Medium	Total building volume 25,000 m^3 – 100,000 m^3, potentially dusty construction material (e.g. concrete), piling, on site concrete batching
Small	Total building volume <25,000 m^3, construction material with low potential for dust release (e.g. metal cladding or timber)
Trackout a	
Large	>50 HDV (>3.5t) outward movements in any one day, potentially dusty surface material (e.g. high clay content), unpaved road length >100 m
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
Small	<10 HDV (>3.5t) outward movements in any one day, surface material with low potential for dust release, unpaved road length <50 m

a These numbers are for vehicles that leave the site after moving over unpaved ground.

7.16 **Step 2B – Define the Sensitivity of the Area**

7.17 The sensitivity of the area is defined taking account of a number of factors:

- the specific sensitivities of receptors in the area;
- the proximity and number of those receptors;
- in the case of PM10, the local background concentration; and
- site-specific factors, such as whether there are natural shelters to reduce the risk of wind-blown dust.

7.18 The first requirement is to determine the specific sensitivities of local receptors. The IAQM guidance recommends that this should be based on professional judgment, taking account of the principles in Table A2.2. These receptor sensitivities are then used in the matrices set out in Table A2.3, Table A2.4 and

Table A2.5 to determine the sensitivity of the area. Finally, the sensitivity of the area is considered in relation to any other site-specific factors, such as the presence of natural shelters etc., and any required adjustments to the defined sensitivities are made.

7.19 **Step 2C – Define the Risk of Impacts**

7.20 The dust emission magnitude determined at Step 2A is combined with the sensitivity of the area determined at Step 2B to determine the risk of impacts with no mitigation applied. The IAQM guidance provides the matrix in Table A2.6 as a method of assigning the level of risk for each activity.

7.21 **STEP 3: Determine Site-specific Mitigation Requirements**

7.22 The IAQM guidance provides a suite of recommended and desirable mitigation measures which are organised according to whether the outcome of Step 2 indicates a low, medium, or high risk. The list provided in the IAQM guidance has been used as the basis for the requirements set out in Appendix A6.

7.23 **STEP 4: Determine Significant Effects**

7.24 The IAQM guidance does not provide a method for assessing the significance of effects before mitigation, and advises that pre-mitigation significance should not be determined. With appropriate mitigation in place, the IAQM guidance is clear that the residual effect will normally be 'not significant'.

7.25 The IAQM guidance recognises that, even with a rigorous dust management plan in place, it is not possible to guarantee that the dust mitigation measures will be effective all of the time, for instance under adverse weather conditions. The local community may therefore experience occasional, short-term dust annoyance. The scale of this would not normally be considered sufficient to change the conclusion that the effects will be 'not significant'.

7.26 Table A2.2: Principles to be Used When Defining Receptor Sensitivities

Class	Principles	Examples
Sensitivities of People to Dust Soiling Effects		
High	users can reasonably expect 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	dwellings, museum and other culturally important collections, medium and long term car parks and car showrooms
Medium	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, aesthetics or value of their property could be diminished by soiling; or the people or property wouldn't reasonably be expected to be present here continuously or regularly for extended periods as part of the normal pattern of use of the land	parks and places of work
Low	the enjoyment of amenity would not reasonably be expected; or there is property that 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	playing fields, farmland (unless commercially-sensitive horticultural), footpaths, short term car parks and roads
Sensitivities of People to the Health Effects of PM_{10}		
High	locations where members of the public may be exposed for eight hours or more in a day	residential properties, hospitals, schools and residential care homes
Medium	locations where the people exposed are workers, and where individuals may be exposed for eight hours or more in a day.	may include office and shop workers, but will generally not include workers occupationally exposed to PM_{10}
Low	locations where human exposure is transient	public footpaths, playing fields, parks and shopping streets

Sensitivities of Receptors to Ecological Effects		
High	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	Special Areas of Conservation with dust sensitive features
Medium	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	Sites of Special Scientific Interest with dust sensitive features
Low	locations with a local designation where the features may be affected by dust deposition	Local Nature Reserves with dust sensitive features

7.27 Table A2.3: Sensitivity of the Area to Dust Soiling Effects on People and Property 6

Receptor Sensitivity	Number of Receptors	Distance from the Source (m)			
		<20	<50	<100	<350
High	>100	High	High	Medium	Low
	10-100	High	Medium	Low	Low
	1-10	Medium	Low	Low	Low
Medium	>1	Medium	Low	Low	Low
Low	>1	Low	Low	Low	Low

7.28 Table A2.4: Sensitivity of the Area to Human Health Effects 6

Receptor Sensitivity	Annual Mean PM_{10}	Number of Receptors	Distance from the Source (m)				
			<20	<50	<100	<200	<350
High	>32 µg/m³	>100	High	High	High	Medium	Low
		10-100	High	High	Medium	Low	Low
		1-10	High	Medium	Low	Low	Low
	28-32 µg/m³	>100	High	High	Medium	Low	Low
		10-100	High	Medium	Low	Low	Low
		1-10	High	Medium	Low	Low	Low
	24-28 µg/m³	>100	High	Medium	Low	Low	Low
		10-100	High	Medium	Low	Low	Low
		1-10	Medium	Low	Low	Low	Low
	<24 µg/m³	>100	Medium	Low	Low	Low	Low
		10-100	Low	Low	Low	Low	Low
		1-10	Low	Low	Low	Low	Low
Medium	>32 µg/m³	>10	High	Medium	Low	Low	Low
		1-10	Medium	Low	Low	Low	Low
	28-32 µg/m³	>10	Medium	Low	Low	Low	Low
		1-10	Low	Low	Low	Low	Low
	24-28 µg/m³	>10	Low	Low	Low	Low	Low
		1-10	Low	Low	Low	Low	Low
	<24 µg/m³	>10	Low	Low	Low	Low	Low
		1-10	Low	Low	Low	Low	Low
Low	-	>1	Low	Low	Low	Low	Low

7.29 Table A2.5: Sensitivity of the Area to Ecological Effects 6

Receptor Sensitivity	Distance from the Source (m)	
	<20	<50
High	High	Medium
Medium	Medium	Low
Low	Low	Low

7.30 Table A2.6: Defining the Risk of Dust Impacts

Sensitivity of the Area	Dust Emission Magnitude		
	Large	Medium	Small
Demolition			
High	High Risk	Medium Risk	Medium Risk
Medium	High Risk	Medium Risk	Low Risk
Low	Medium Risk	Low Risk	Negligible
Earthworks			
High	High Risk	Medium Risk	Low Risk
Medium	Medium Risk	Medium Risk	Low Risk
Low	Low Risk	Low Risk	Negligible
Construction			
High	High Risk	Medium Risk	Low Risk
Medium	Medium Risk	Medium Risk	Low Risk
Low	Low Risk	Low Risk	Negligible
Trackout			
High	High Risk	Medium Risk	Low Risk
Medium	Medium Risk	Low Risk	Negligible
Low	Low Risk	Low Risk	Negligible

7.31 6 For demolition, earthworks and construction, distances are taken either from the dust source or from the boundary of the site. For trackout, distances are measured from the sides of roads used by construction traffic. Without mitigation, trackout may occur from roads up to 500 m from sites with a large dust emission magnitude for trackout, 200 m from sites with a medium dust emission magnitude and 50 m from sites with a small dust emission magnitude, as measured from the site exit. The impact declines with distance from the site, and it is only necessary to consider trackout impacts up to 50 m from the edge of the road.