Construction Dust Management Plan: 12 Canning Crescent

For: Cadoo Studios

Site: :12 Canning Crescent

Date 26/06/2026

Document Ref: 323366

Issue 02

www.arthian.com

Quality Assurance

Issue Record

Revision	Description	Date	Author	Reviewer	Approver
1.0	First Draft	28 May 2026	JB	DJ	JB
2.0	Second Draft	26 June 2026	JB	SC	JB

Limitations

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1. Introduction

1.1 Background

Cadoo Studios ('Client') are in the process of producing a Dust Management Plan (DMP) for a proposed development (hereafter referred to as the 'site') on land located at 12 Canning Crescent, Wood Green, London, N22 5SR.

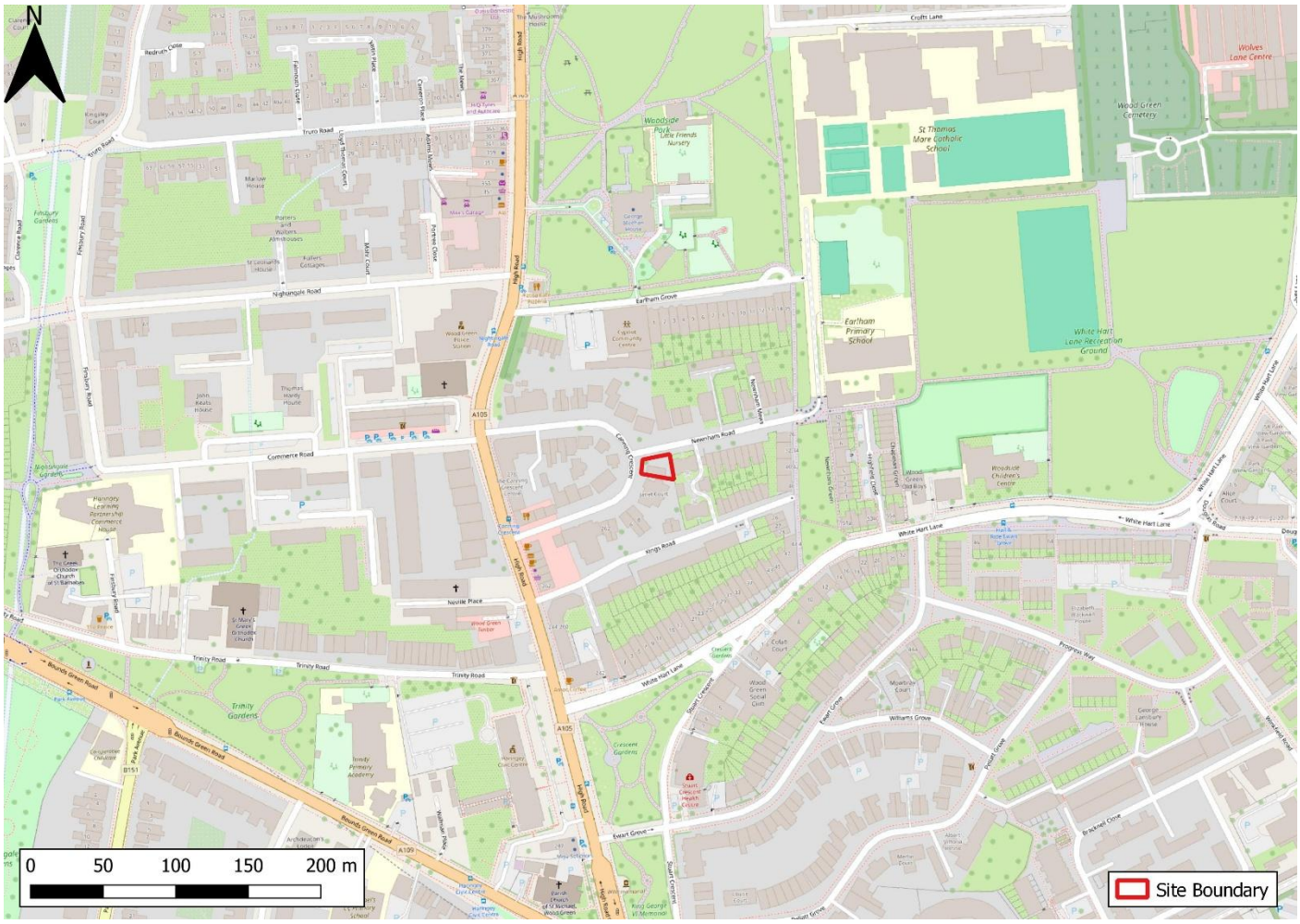
Arthian Ltd (Arthian) has been appointed to provide a Construction Dust Management Plan (DMP) for the site.

1.2 Site Description

The site is located on land off 12 Canning Crescent, Wood Green, London, N22 5SR. The site is bounded to the north, east, south and west by residential developments. The site is under the jurisdiction of the London Borough of Haringey (LBH).

A location plan of the site and the surrounding area is shown below in Figure 1.1.

Figure 1.1: Site Location



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1.3 Proposed Development

The proposed development comprises of new multi-storey residential developments.

The proposed layout is shown in Figure 1.2.

Figure 1.2: Proposed Site Plan

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1.4 Report Structure

The structure of the report is summarised below:

- A brief description of the site.
- A brief description of the legislation governing air quality.
- Baseline air quality conditions in the vicinity of the site.
- Details of the proposed works.
- Details of the methodology used for the dust impact assessment.
- Mitigation measures to manage dust and construction phase vehicle emissions.

1.5 Objectives of the DMP

The objectives of this report are:

- To assess the present levels of dust (i.e. PM_{10} – particles which are less than 10µm in diameter concentrations) around the development site based upon the local authority data and the background atmospheric concentrations, as available in the public domain; and,
- Assess the potential dust impacts during the construction phase of the development and develop the appropriate dust mitigation measures.

2. Legislation Policy & Guidance

2.1 National Legislation & Policy

2.1.1 Air Quality Strategy

The Air Quality Strategy for England, Scotland, Wales and Northern Ireland Volume 1 (Air Quality Strategy) establishes the policy for ambient air quality in the UK. It includes the National Air Quality Objectives (NAQOs) for the protection of human health and vegetation for 11 pollutants. NO_2, PM_{10} and $PM_{2.5}$ are considered the pollutants of greatest concern in relation to potential emissions from the proposed development and are the focus of this air quality assessment.

Table 2.1 summarises the relevant NAQOs for NO_2, PM_{10} and $PM_{2.5}$ that apply in England.

Table 2.1: NAQOs

Pollutant	Objective	Reference	Additional Information
NO_2	200 µg/m^3	1-hour Mean	Maximum 18 exceedances a year
	40 µg/m^3	Annual Mean	-
PM_{10}	50 µg/m^3	24-hour Mean	Maximum 35 exceedances a year
	40 µg/m^3	Annual Mean	-
$PM_{2.5}$	20 µg/m^3	Annual Mean	-

Local Air Quality Management (LAQM) Technical Guidance document LAQM.TG22 summarises locations at which these objectives should apply, based on associated averaging periods. This has been reproduced in Appendix A. It is also noted that the objectives do not apply in workplace locations, to internal air or where people are unlikely to be regularly exposed (e.g. centre of roadways).

2.1.2 National Planning Policy Framework

The latest guidance published in December 2024, the National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how these are expected to be applied. At the heart of the NPPF is a presumption in favour of sustainable development. It provides a framework within which locally prepared plans for housing and other development can be produced. It requires Local Plans to be consistent with the principles and policies set out in the Framework with the objective of contributing to the achievement of sustainable development. Current planning law requires that application for planning permissions must be determined in accordance with the relevant development plan (i.e. Local Plan or Neighbourhood Plan). The NPPF should be taken into account in the preparation of development plans and therefore the policies set out within the Framework are a material consideration in planning decisions.

Under paragraph 110, it states that:

"The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions

and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making."

Under paragraph 187(e), it states that:

"Planning policies and decisions should contribute to and enhance the natural and local environment by preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans."

Under paragraph 199, it states that:

"Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. So far as possible these opportunities should be considered at the plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications. Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan."

2.1.3 Control of Dust and Particulates Associated with Construction

Section 63 of the Clean Neighbourhoods and Environment Act (2011) states that where a statutory nuisance is shown to exist, the local authority must serve an abatement notice. Statutory nuisance is defined as:

- 'Any dust or other effluvia arising on industrial, trade or business premises and being prejudicial to health or a nuisance'.
- 'Any accumulation or deposition which is prejudicial to health or a nuisance'.

Failure to comply with an abatement notice is an offence and if necessary, the local authority may abate the nuisance and recover expenses.

In the context of the development, the main potential for nuisance of this nature will arise during the construction phase - potential sources being the clearance, earthworks, construction and landscaping processes. There are no statutory limit values for dust deposition above which 'nuisance' is deemed to exist. 'Nuisance' is a subjective term and its perception is highly dependent upon the existing conditions and the change which has occurred. However, research has been undertaken by a number of parties to determine community responses to such impacts and correlate these to dust deposition rates. However, impacts remain subjective and statutory limits have yet to be derived.

2.1.4 UK Clean Air Strategy 2019

The Defra Clean Air Strategy 2019 aims to shows how the UK will tackle all sources of air pollution, make air healthier to breathe, protect nature and boost the economy.

The strategy builds on an extensive consultation process which indicated broad-based support for many of the actions Defra were proposing. There was also a range of constructive feedback and challenge that has enabled Defra to improve and extend its ambition even further in certain key areas. A document summarising the responses to the consultation is published alongside the strategy. The strategy sets out these proposals in detail and indicates how devolved administrations intend to make their share of emissions reductions.

2.2 Local Planning Policy

2.2.1 Haringey's Local Plan

Haringey's Local Plan was adopted in 2017 and provides the overarching framework for policy and land use proposals to guide development over the next ten year period. The Local Development Plan contains the following policy related to air quality:

"DM23 Environmental Protection

1.1 All development proposals should consider air quality and be designed to:

- *a) Improve or mitigate the impact on air quality in the Borough; and b Improve or mitigate the impact on air quality for the occupiers of the building or users of the development.*
- *b) Air quality assessments will be required for all major development and other development proposals, where appropriate.*
- *c) Where necessary, adequate mitigation must be provided.*

2.3 Guidance

A summary of the publications referred to in the undertaking of this assessment is provided below.

2.3.1 Local Air Quality Management Review and Assessment Technical Guidance

Defra has published technical guidance for use by local authorities in their review and assessment work. This guidance, referred to in this document as LAQM.TG22, has been used where appropriate in the assessment presented herein.

2.3.2 Guidance on the Assessment of Dust from Demolition and Construction

Guidance on the Assessment of Dust from Demolition and Construction published by the IAQM was produced to provide guidance to developers, consultants and environmental health officers on how to assess the impacts arising from construction activities. The emphasis of the methodology is on classifying sites according to the risk of impacts (in terms of dust nuisance, PM_{10} impacts on public exposure and impact upon sensitive ecological receptors) and to identify mitigation measures appropriate to the level of risk identified.

3. Baseline Air Quality

3.1 Local Air Quality Management

The UK Air Quality Strategy establishes a framework for the improvement of air quality and focusses on measures agreed at a national and international level. However, it was recognised, that despite such strategic measures, areas of poor air quality would likely remain, and that these will best be dealt with using local measures implemented through the LAQM regime. Part IV of The Environment Act 1995 sets provisions for protecting air quality in the UK and for local air quality management.

The LAQM regime has been in place in the UK since 1997. The role of the regime is to review local air quality and identify all relevant locations where the air quality objectives are being or are likely to be exceeded. Where an area of exceedance is identified, the local authority is required to declare an Air Quality Management Area (AQMA) and implement an Air Quality Action Plan to improve air quality within the areas. As part of this process, the authority is required to regularly review and assess air quality within its boundary.

In 2026, LBH has declared a single AQMA (Haringey AQMA) that encompasses the entirety of the borough.

3.2 Local Emissions Sources

3.2.2 Roads

The site is located on the corner of Canning Crescent and Newnham Road and to the east of the A105 High Road which is a major trunk road running from Wood Green in the south to the North Circular. The A105 High Road is considered to be the main source of emissions at the site.

3.3 Air Quality Monitoring Data

A review of the available local monitoring data within LBH's Annual Progress Report 2024 has been undertaken.

LBH operated three automatic monitoring sites and 36 non-automatic NO_2 monitoring sites in 2024. The nearest representative local monitoring site is located around 440m west of the site. This site recorded an annual mean NO_2 concentration of 19.4 µg/m^3 in 2024. This is 20.6 µg/m^3 below the annual mean objective.

3.4 Background Pollutant Data

Further to the local monitoring data, 1km square background data (as per Defra Air Quality Database)[1] was reviewed to establish baseline conditions. Annual mean data is presented in Table 3.1 below covering the site (grid reference 530500,190500).

Table 3.1: Annual Mean Background Pollutant Grid Data at Site

Location	Grid Reference[2]	Year	NO_2 µg/m³	PM_{10} µg/m³	$PM_{2.5}$ µg/m³
Site	530500, 190500	2022	20.0	15.0	8.6
		2023	18.5	15.0	8.5
		2024	17.8	14.9	8.5
		2025	17.2	14.8	8.4
		2026	16.6	14.8	8.3

The Defra estimated background concentrations of NO_2, PM_{10} and $PM_{2.5}$ are below their respective air quality objectives and are predicted to decrease in future years. Defra has predicted background pollutant decreases in future years due to future developments in vehicle technology and changes to national and local policy.

[2] Central point of 1km x 1km square

4. Construction Impact Assessment

4.1 Introduction

The air quality impacts that may arise during demolition and construction activities are:

- Dust deposition, resulting in the soiling of surfaces;
- Visible dust plumes, which are evidence of dust emissions;
- Elevated $PM_{2.5-10}$ concentrations, as a result of dust generating activities on site; and
- An increase in concentrations of airborne particles and NO_2 due to exhaust emissions from diesel powered vehicles and equipment used on site (non-road mobile machinery) and vehicles accessing the site.

4.2 Construction Dust Assessment Methodology

The risk of dust emissions from a demolition/construction site causing loss of amenity and/or health or ecological impacts is related to the:

- Activities being undertaken (demolition, number of vehicles and plant, etc.);
- Duration of these activities;
- Size of the site;
- Meteorological conditions (wind speed, direction and rainfall);
- Proximity of receptors to the activities;
- Adequacy of the mitigation measures applied to reduce or eliminate dust; and
- Sensitivity of the receptors to dust.

The quantity of dust emitted from construction operations will be related to the area of land being worked, and the level of construction activity (nature, magnitude and duration). Emissions from construction vehicles passing over unpaved ground can be particularly important. The wind direction, wind speed and rainfall, at the time when a construction activity is taking place, will also influence whether there is likely to be a dust impact.

The IAQM *Guidance on the Assessment of Dust from Construction and Demolition v2.2* document informed this assessment.

This guidance document provides an advised procedure for a semi-quantitative dust risk assessment and screening criteria for the activities undertaken on-site. Mitigation measures are also suggested based on the assessed risk.

Activities on construction sites have been divided into four types to reflect their different potential impacts. These are:

- Demolition;
- Earthworks;
- Construction; and
- Trackout

The potential for dust emissions is assessed for each activity that is likely to take place. The methodology considers three separate dust impacts:

- Annoyance due to dust soiling;
- The risk of health effects due to an increase in exposure to $PM_{2.5-10}$; and
- Harm to ecological receptors with account being taken of the sensitivity of the area that may experience these effects.

The assessment is used to define appropriate mitigation measures to reduce the potential for any significant effect. The 4-step assessment process is outlined in Table 4.1 below.

Table 4.1: Assessment Process Steps

Site	Intent
1	To screen the requirement for a more detailed assessment. No further assessment is required if there are no receptors within a certain distance of the works.
2	To assess the risk of dust impacts. This is done separately for each of the four activities (demolition, earthworks, construction and trackout) and takes account of: • Step 2A: The scale and nature of the works, which determines the potential dust emission magnitude; and • Step 2B: The sensitivity of the area. These factors are combined in Step 2C to give the risk of dust impacts. Risks are described in terms of there being a low, medium or high risk of dust impacts for each of the four separate potential activities. Where there are low, medium or high risks of an impact, then site-specific mitigation will be required, proportionate to the level of risk. Based on the threshold criteria and professional judgement one or more of the groups of activities may be assigned a 'negligible' risk. Such cases could arise, for example, because the scale is very small and there are no receptors near to the activity.
3	To determine the site-specific mitigation for each of the four potential activities in Step 2. This will be based on the risk of dust impacts identified in Step 2.
4	To examine the residual effects and to determine whether or not these are significant.

4.3 Step 1 – Screening

An assessment is required where there is:

- A 'human receptor' within:
  - 250 m of the boundary of the site; or
  - 50 m of the route(s) used by construction vehicles on the public highway, up to 250 m from the site entrance(s).
- An 'ecological receptor' within:
  - 50 m of the boundary of the site; or
  - 50 m of the route(s) used by construction vehicles on the public highway, up to 250 m from the site entrance(s).

There are human receptors within 250 m of the site and within 50 m of the site entrance, therefore the proposed development impact is not screened out, and a more detailed assessment is required.

There are no ecological designations within 1km of the site boundary and so have been screened out from the assessment.

In summary a detailed assessment is required and can be found below from section 4.4 onwards.

4.4 Step 2A – Dust Emission Magnitude

The dust emission magnitude has been categorised in Table 4.2 below. At this early stage of development, final construction details are not available. As such, the dust emission magnitude has been categorised using the available information and using professional judgement based on similar developments.

Table 4.2: Dust Emission Magnitude

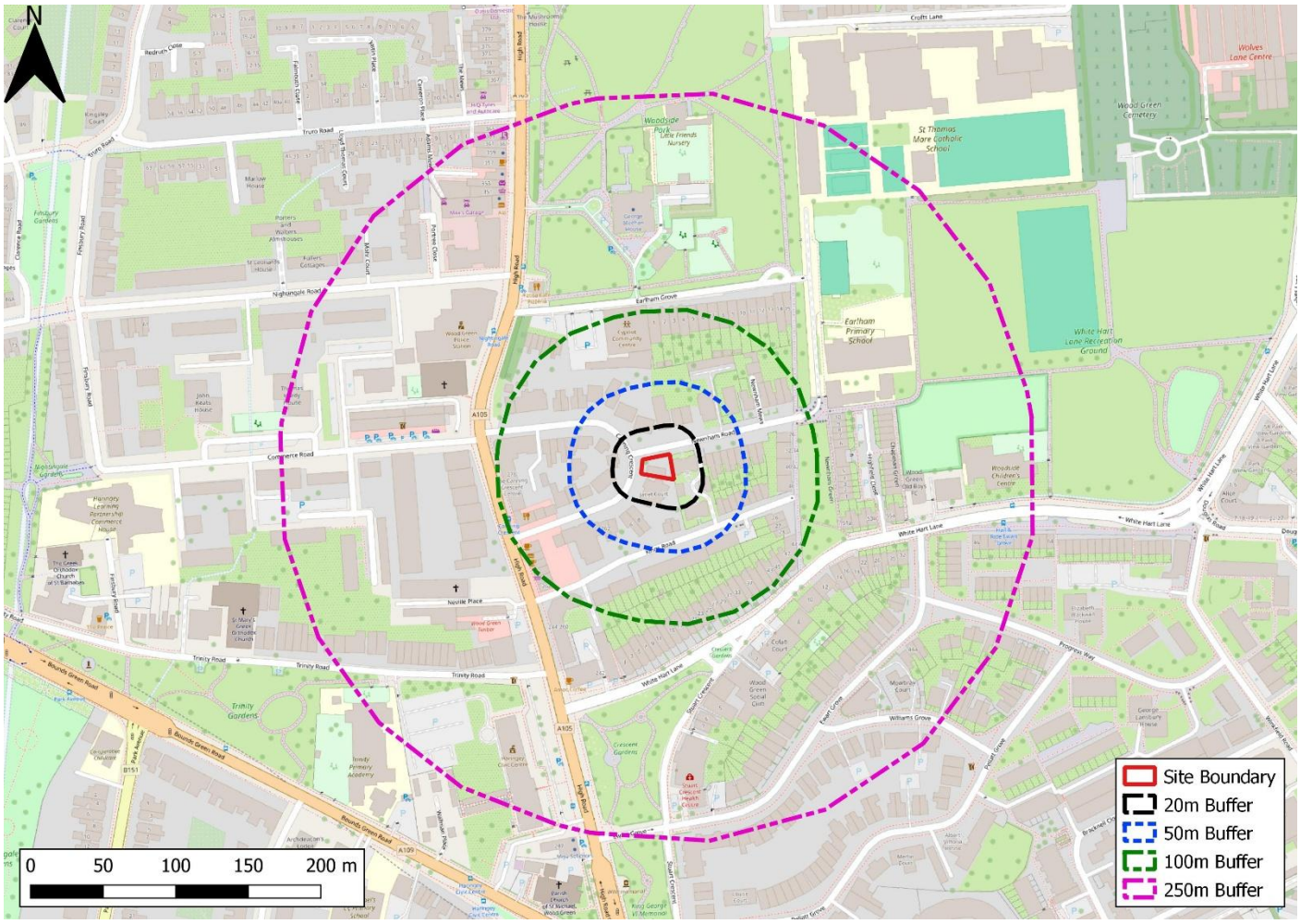
Activity	Magnitude	Justification
Demolition	Small	• Building volume predicted to be less than 12,000m^3; • Height of demolition above ground is between 6-12m; and • 9 weeks in duration.
Earthworks	Small	• Total site area is less than 18,000 m^2; • It is anticipated that <5 heavy earth moving vehicles active at any one time; and • 3 weeks in duration.
Construction	Small	• Total construction volume has been estimated to be between <12,000 m^3; • No on-site concrete batching; and • The building will be a steel frame with cavity wall construction and external masonry cladding.

Trackout	Small	• Maximum daily outwards movement of Heavy Duty Vehicles (HDVs, vehicles more than 3.5 tonnes) is expected to be <20. • Unpaved road length is estimated to be <50 m.

4.5 Step 2B – Sensitivity of Area

The area sensitivity has been categorised below relative to IAQM guidance. For the purpose of assessing the sensitivities of people to health effects of PM_{10}, the current year (2026) DEFRA estimated background PM_{10} concentration of 14.8 µg/m^3 (Table 3.1) has been used in the absence of site-specific data. The dust buffer zones for the earthworks and construction areas are shown in Figure 4.1.

Figure 4.1: Dust Buffer Zones for Earthworks and Construction Activities



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4.5.1 Sensitivity of Area – Earthworks and Construction

Being located adjacent to residential areas on all aspects, there are a number of high sensitive receptors (e.g. primarily human residential dwellings) located within 250m of the site boundary. The closest sensitive receptors are nearby residential dwellings located within 20 metres of the site boundary, with the total number located within 20 metres of the boundary estimated to be more than 10.

The overall sensitivity of the area to dust soiling effects on people and property from demolition, earthworks and construction activities is therefore considered to be 'high'.

Given the PM_{10} concentration at the site is below 24 µg/m^3, the overall sensitivity of the area to human health impacts from earthworks and construction activities is therefore considered 'low'.

4.5.2 Sensitivity of Area – Trackout

Allowing for potential trackout within a distance of 200 m, there are several high sensitive receptors (residential dwellings) within 50m of the road edge of the proposed development's anticipated access road. It is understood that construction traffic will access the site via A105. Subsequently, the overall sensitivity of the area to dust soiling effects on people and property from trackout activity has been assessed as 'high'.

Given the PM_{10} concentration at the site is below 24 µg/m^3, the overall sensitivity of the area to human health impacts from trackout activity is considered 'low'.

4.5.3 Sensitivity of Area – Summary

In Table 4.3, the outcome of the above analysis is summarised.

Table 4.3: Step 2B Outcome

Potential Impact	Sensitivity of the Surrounding Area			
	Demolition	Earthworks	Construction	Trackout
Dust Soiling	High	High	High	High
Human Health	Low	Low	Low	Low
Ecological	N/A	N/A	N/A	N/A

4.6 Step 2C – Risk of Dust Impacts

The risk of impacts in the instance that no mitigation measures were applied are summarised in Table 4.4, in accordance with the IAQM guidance. The overall risk is determined to be "medium" for construction activities.

Table 4.4: Summary Dust Risk Table

Potential Impact	Risk			
	Demolition	Earthworks	Construction	Trackout
Dust Soiling	Medium	Low	Low	Low
Human Health	Negligible	Negligible	Negligible	Negligible
Ecological	N/A	N/A	N/A	N/A

4.7 Construction Traffic

Construction traffic is anticipated to access the site via the A105 High Road. The EPUK & IAQM Guidance sets out screening criteria for assessment of road vehicle emissions. The Annual Average Daily Traffic (AADT) generated by the site's construction phase vehicles will fall well below the air quality screening criteria for vehicles on roads located within an AQMA (100 LDVs AADT and 25 HDVs AADT). Considering the above, potential emissions from construction road vehicles are considered to be not significant.

5. Best Practice Dust Guidelines

The dust risk assessment, carried out in Section 4 of this document, has demonstrated that the dust risk at the site is likely to be Medium to Low Risk. On this basis, the following best practice dust control measures IAQM Guidance may be implemented to further ensure that air quality impacts of construction and demolition activities are minimised and any mitigation measures employed are effective.

5.1 Site Management

The site management practises, set out below, are recommended as best practice to ensure that the site is responsibly managed during the construction phase.

5.1.1 Stakeholder Engagement

It is important to ensure that those sensitive to the impacts (i.e. residential receptors) are notified and consulted before work commences and that they have an easy and effective mechanism for informing the developer of their concerns and issues.

It is recommended that a stakeholder communications plan be put in place to identify groups who are or may be affected by the project and how, and how they will be communicated with to identify and address their concerns and comments.

The Site Manager or the deputy will be responsible for management of dust emissions on the site ('Site Manager/Nominated Person'). Contact details for the person responsible for dust and emissions generated from the proposed development (likely the environment manger/engineer or the site manager) may be displayed on the proposed development boundary at regular intervals so that local residents and businesses are able to contact the relevant person/team to raise any issues that they may have and report complaints.

It is recommended that a logbook is kept to record any complaints and made available to the Local Authority if requested. All complaints should be responded to.

5.1.2 Site Inspections

The Nominated Person will actively monitor the site to ensure the control of dust and emissions. This should include daily on- and off-site inspection to monitor and record instances of dust soiling. Checks should include surfaces within 100m of the site boundary such as street furniture, cars and windowsills and cleaning provided if necessary. Dry and windy conditions increase the likelihood of dust and emissions being produced and dispersed, so it is recommended that extra precautions are in place during these times.

The frequency of site inspections would be increased by the Nominated Person when activities with a high potential to produce dust and emissions and dust are being carried out, and during prolonged dry or windy conditions.

Inspections and any exceptional incidents that could cause dust and air quality pollutant emissions would be recorded, either on or off the site, and the action taken to resolve the situation is also recorded in the logbook, which should be made available to the Local Authority as and when requested.

5.2 Preparing and Maintaining the Site

The way in which a site is prepared and maintained can have a significant impact on the control of dust and emissions. Below are some recommended best practice measures that can be used to minimise emissions from the demolition works.

5.2.1 Site Layout

When planning their demolition and construction works, the developer will aim to:

- Locate machinery and dust generating activities away from receptors.
- Create a physical distance and/or barrier between dust/emission generating activities and receptors.
- Install solid screens or barriers around dust generating activities.
- Remove loose materials from site as soon as possible.

5.2.2 Green Infrastructure

The benefit of vegetation in reducing the impacts of air pollutants is still being researched. However, several studies show a positive impact. Site operators are encouraged to install green walls, screens and other vegetation to minimise the impact of dust/pollution and also to improve the local environment during demolition and construction works.

5.2.3 Site Maintenance

Developers should keep their sites in good order. A selection of the below best practice measures may be implemented to achieve this. For example:

- Bund the site or works area to prevent runoff.
- Regularly clean hoardings, fencing, barriers and scaffolding using wet methods. Collect water for reuse and maximise the use of recycled and non-potable water.
- Regularly inspect buildings within 100m of the site boundary for dust soiling with cleaning carried out, where necessary.
- Require a change of shoes and clothes by staff and visitors before going off-site to reduce the transport of dust or provide cleaning facilities, where appropriate.

5.2.4 Dealing with Spillages

Spillages can occur with a wide range of liquid and materials, including those which are hazardous. The following measures will address this issue:

- Use bunded areas wherever practicable.
- Regularly inspect the site area for spillages.
- Have spillage kits readily available.
- Clean spillages using agreed wet handling methods.
- Vacuum or sweep regularly to prevent the build-up of fine waste dust material, which has spilled on the Site and is designated as waste that is no longer required.
- Fit for use - this should be dealt with in accordance with the Waste Management Licensing Regulations (WMLR), 1994.

- Inform the Environment Agency, Fire and Emergency Planning Authority or the Health Protection Agency (HPA) if harmful substances are spilled. More information is provided by the Environment Agency in Pollution Prevention Guideline 6. (https://www.gov.uk/government/organisations/environment-agency).

5.3 Reducing Emissions from Vehicles

Emissions from vehicles associated with construction sites can significantly add to levels of local air pollution, so it is important that best practice is employed to reduce these.

5.3.1 Reduce Vehicle Idling

The site will be managed so that vehicles do not have to wait to park safely. However, should vehicles have to wait they would not idle. Generally, if a vehicle is stationary for more than a minute, turning off the engine will reduce emissions and fuel costs.

5.3.2 Speed Limits

The site will be managed so that vehicles maintain a low speed to limit dispersal of dust whilst moving. A maximum speed limit of 15 mph on surfaced roads and 10 mph on unsurfaced haul roads and work areas should be imposed and signposted in the appropriate areas.

5.3.3 Construction Logistics Plan

Deliveries to construction sites can contribute greatly to congestion and emissions at and around sites. A Construction Logistics Plan (CLP) should be developed and implemented as part of wider transport assessment for the proposed development. As part of the CLP, deliveries and removals would be managed so that they are made when they are most needed, at times when they will contribute less to congestion and at locations where loading and unloading can take place safely. The CLP for the site will help site managers to:

- Cut congestion in the local area, reducing the environmental impact of deliveries and inconvenience to local road users.
- Save time and money.
- Improve the safety of deliveries.
- Improve delivery reliability.

The CLP should be tailored to the site's requirements and its local context, including the location of sensitive receptors. Things that are considered include:

- Looking at where legal loading can take place.
- Creation of specific loading and unloading areas.
- Consolidating deliveries so fewer journeys are needed.
- Sustainable delivery methods (if possible).

Guidance on CLP is available at https://content.tfl.gov.uk/clp-guidance-clocs.pdf.

5.3.4 Travel Plans

Measures set out in travel plans can include schemes that encourage construction workers not to use single-occupancy cars to travel to and from the site but instead to cycle, walk, use public transport or car share. Reducing car miles not only reduces emissions but can produce financial benefits and productivity improvements, saving both the business and its staff money and time.

Guidance produced by DfT on Workplace Travel Plans will be used. This guidance is archived at: www.dft.gov.uk/pgr/sustainable/travelplans/work/essentialguide.pdf.

It is understood that a travel plan has been submitted which sets out key measures to encourage sustainable travel.

5.3.5 Diesel or Petrol Generators

Even modern diesel- or petrol-powered plant items emit higher levels of PM and NO_x than electric equivalents. Therefore, wherever possible, renewable, mains or battery powered plant items would be used.

5.4 Operations

5.4.1 Cutting, Grinding and Sawing

Ideally, cutting, grinding and sawing would not be conducted on-site and prefabricated material and modules would be brought in, where possible. In cases where such work must take place, spraying water, preferably from a water efficient spray pump, over the material as it is being cut may be employed to reduce the amount of dust generated.

Scabbling is the process of grinding concrete using a machine tipped with steel or carbide material to rapidly pound it. The following measures should be in place to comply with best practice:

- Pre-wash work surfaces.
- Screen off work areas.
- Sweeping away.

5.4.2 Mobile Crushing Plant

This is an inherently dusty activity and will often take place on the sites normally classed as medium or high-risk dust emission sites. It is currently not known if crushing of concrete blocks will take place on-site.

If on-site crushing does take place, crushing equipment should be designed and operated in accordance with Process Guidance Note 3/16 for Mobile Crushing and Screening. The emission limit for crushing under Process Guidance Note 3/16 is the avoidance of visible emissions crossing the (construction) site boundary. This should be monitored throughout the whole process at three occasions: on start-up and at least two more occasions throughout the day. Any observations by the equipment operator should be recorded.

Additionally, adequate water supply for the site should be ensured, with adequate frost protection, for the purposes of dust suppression. Crushers themselves should be totally contained or fitted with a water suppression system over the crusher aperture. Dust extraction and arrestment may be necessary to comply with emission limits in the event water suppression proves adequate and should be operational in this case. Dust

discharge from crushers/screeners onto other equipment should be enclosed as far as possible, and dust deposits on external parts of the plant should be cleaned off at the end of each day to avoid wind entrainment. Finally, crushing and screening activities should be sited in an appropriate location away from the site boundary; this is especially important given the presence of residential receptors near the site.

5.4.3 Concrete Batching

As for mobile crushing plants, construction sites with concrete batching plants will often be categorised as medium or high risk. It is currently not known if concrete batching will take place on-site.

If on-site concrete batching does take place, equipment should be designed and operated in accordance with Process Guidance Note 3/01(12) for Blending, Packing, Loading, Unloading and Use of Cement. The emission limit for the whole concrete batching process under Process Guidance Note 3/01(12) is the avoidance of visible emissions crossing the (construction) site boundary. This should be monitored at least once per day and any observations by the equipment operator should be recorded.

Additionally, adequate water supply for the site should be ensured, with adequate frost protection, for the purposes of dust suppression. Where possible, the concrete batching process should be enclosed e.g. covering of aggregate stockpiles.

Finally, concrete batching activities should be sited in an appropriate location away from the site boundary; this is especially important given the presence of residential receptors near the site.

5.4.4 Chutes, Conveyors and Skips

Skips, chutes and conveyors would be covered and, if necessary, completely enclosed to ensure that dust does not escape. Similarly, drop heights would be minimised to control the fall of materials.

5.5 Waste Management

5.5.1 Bonfires

Taking into account the Clean Air Act 1993 and nuisance legislation (Environmental Protection Act 1990), it is recommended that:

- Bonfires are prohibited.
- No burning of any material is permitted on-Site.
- Any excess material should be reused or recycled on or off-Site in accordance with appropriate legislation.

5.5.2 Waste and Recycling Plans

A waste and/or recycling plan may be prepared for the site. The Environment Agency suggests that a waste plan includes the following best practise procedures:

- Identify the waste types that are likely to be produced and aim to reduce the amount of waste as much as possible, through identifying routes to reuse or recycle materials. The Waste and Resources Action programme (WRAP www.wrap.org.uk) provides a list of ten quick wins for reducing and re-using waste.
- Control access to storage areas to minimise risk of theft or damage.

- Set up a dedicated store for timber, from which workers can re-use supplies.
- Store any materials away from sensitive locations in fenced off areas.
- Label all waste storage areas and skips, detailing the type of waste.
- Employ a just-in-time policy to deliver materials in order to reduce the storage time on-site.
- Consider using recycled materials and recycle any materials used on site rather than disposing of them (including timber, aggregates, soil, tarmac, bricks, masonry, concrete and glass). The BRE Smart Waste management tool (www.smartwaste.co.uk) is an online template contractors can use to input data on the amount and type of waste and it will be sorted by the tool. CIRIA provides lists of recycled materials that companies will accept. Any materials re-used, however, should be suitable for purpose, for example any suspected contaminated soil should not be re-used until it has been tested first.
- If practicable, remove materials for recycling from buildings prior to demolition or from demolition spoil.

5.6 Measures Specific to Earthworks

Following earthwork activities, it is important to reduce the generation and resuspension of dust through re-vegetating exposed areas and soil stockpiles to stabilise surfaces. Where this is not possible, hessian and/or mulches to re-vegetate or cover with topsoil will be used.

5.7 Measures Specific to Construction

It is important that cement, sand, fine aggregates and other fine powders are sealed after use and should be stored in enclosed or bunded containers or silos. Some materials would be kept damp to reduce the risk of drying out.

5.8 Measures Specific to Trackout

The following measures are recommended to reduce the dust emission impact.

5.8.1 Haul Routes

Unpaved haul routes can account for a significant proportion of fugitive dust emissions, especially in dry or windy conditions, when the generation of dust through the movement of vehicles is exacerbated. It is recommended that to comply with good practice, the Nominated Person would as far as possible ensure that hard surfaces or paving are used and maintained for all haul routes, even if routes are temporary. Additionally, site access gates should be located at least 10m from receptors where possible.

It is important that haul routes and local access roads are kept free of dust as far as possible and are swept regularly. Where possible, this would be water-assisted to avoid dry sweeping and increase damping down using fixed or mobile sprinkler systems, mobile water bowsers and water-assisted dust sweepers (the latter of which may need to be continually in use).

Ideally, a wheel washing system would also be implemented, including rumble grids to dislodge any accumulated dust or mud. Where site size and layout permits, an adequate area of hard surfaced road should be left in between the wheel wash area and the site exit.

Regarding all water-based dust suppression methods, care should be taken to not to contaminate sewers or local waterways.

5.8.2 Covering Vehicles

All vehicles carrying dusty materials will be securely covered before leaving the site, to prevent dust spilling on the road and being swept away by the wind. This includes vehicles removing waste from the site.

6. Monitoring Residual Impact

6.1 General

Environmental monitoring during construction projects can be beneficial and can be used to:

- Demonstrate the efficacy of mitigation measures.
- Reduce costs by effective targeting of mitigation measures.
- Demonstrate compliance with regulatory or other standards.
- Demonstrate a commitment to reduce environmental impacts.
- Reduce complaints from site staff and the public.
- Reduce potential for conflict with regulators.
- Speed up dispute resolution.

Sites for which monitoring is particularly likely to be beneficial include large or long-term sites in sensitive areas (e.g. residential), contaminated sites, and sites in sensitive air quality areas, such as AQMAs and AQFAs.

Monitoring regimes can range from real-time, continuous monitoring to the visual assessment of dust generation, depending on the risks identified for the respective construction activities.

Monitoring will be undertaken as detailed in the below sections as best practice.

6.2 Proposed Dust Monitoring

6.2.1 Visual Inspection

Visual assessment of dust generation will be undertaken at regular intervals throughout the working day, by the Site Manager. If dust is noticed, or there is deemed to be a 'dust episode' then this will be documented in the site logbook, the entry to include:

- Time & date.
- Confirmation of any visible dust emissions.
- Remedial actions taken if emissions observed.
- Wind direction and strength (a weather station, windsock or a knowledge of the Beaufort Scale would assist in this).

Should any operatives observe that dust generated by on-site activities is transgressing off site, this should be reported to Site Manager/Nominated Person.

6.2.2 Continuous Monitoring

As per Section 4.6, the demolition phase has been determined as "Medium Risk" for dust soiling. As such monitoring of PM_{10}/$PM_{2.5}$ will be undertaken using a continuous monitor to the MCERTS standard at one location on the southern boundary of the site. 15-minute averages will be recorded for comparison with the respective air quality objectives listed in section 2.1.1 and trigger levels within the GLA SPG Dust and Emission Control (250 µg/m^3 as a 15-minute mean). Any breaches of these thresholds will be immediately investigated and a short report will be submitted to LBH detailing this. If necessary additional mitigation measures will be proposed and

undertaken to prevent further breaches. If no breaches of the AQOs/trigger levels are experienced, then a concise report detailing the monitored values will be submitted to the LBH every four weeks.

7. Implementation and Management

The Site Manager/Nominated Person shall be responsible for the control of environmental impacts of construction activities. The Site Manager/Nominated Person shall be briefed and trained appropriately. A deputy will be appointed as the responsible person in his/her absence.

As part of the air quality management regime, the Site Manager/Nominated Person will keep a site logbook documenting the maintenance of effective emissions control methods and details of any complaints or incidents, and actions taken.

The Site Manager/Nominated Person shall liaise regularly with LC and other stakeholders, if required. Emissions control procedures and equipment will only work satisfactorily if carried out or used appropriately. The Site Manager/Nominated Person shall maintain good housekeeping and ensure that all equipment is well maintained and used appropriately.

It is important that all site personnel are aware of the requirement for the control of environmental impacts, and appropriate training shall be given to all site personnel, covering:

- Health and environmental impacts of emissions to air.
- The benefits of controlling emissions to air.
- Emission control measures.
- Method statements.
- Importance of good communication.

8. Summary

Arthian were appointed by Cadoo Studios to prepare a Construction DMP for the proposed residential development at 12 Canning Crescent in the London Borough of Haringey.

In regard to dust impacts during construction, a qualitative assessment on the construction phase activities has been carried out following the relevant IAQM guidance. This identified that there is a 'Medium Risk' for demolition and 'Low Risk' of dust soiling impacts for earthworks, construction and trackout. There is also a 'Low Risk' of increases in particulate matter concentrations that could affect human health due to demolition, earthworks, construction and trackout activities. Best practice dust control measures must be implemented to further ensure that air quality impacts of construction and demolition activities are minimised and any mitigation measures employed are effective. The residual effects of the construction phase dust on air quality are considered to be 'Negligible'. The dust impacts from the proposed demolition works would be 'Not Significant'. Monitoring has been proposed as per section 6.2.2.

Subject to the appropriate implementation of this DMP, the air quality effect of the construction works is considered to be 'Not Significant'. The site does not, in air quality terms, conflict with national or local policies. On implementation of the recommended mitigation measures, there are no constraints to the demolition works in the context of air quality.

Appendices

Appendix A: Examples of Where Air Quality Objectives Should Apply

Averaging Period	Objectives should apply at:	Objectives should not generally apply at:
Annual Mean	• All locations where members of the public might be regularly exposed. • Building facades of residential properties, schools, hospitals, care homes, etc.	• Building facades of offices or other places of work where members of the public do not have regular access. • Hotels, unless people live there as their permanent residence. • Gardens of residential properties. • Kerbside sites (as opposed to locations at the building façade), or any other location where public exposure is expected to be short term.
24 Hour Mean and 8 Hour Mean	• All locations where the annual mean objectives would apply, together with hotels. • Gardens of residential properties.	• Kerbside sites (as opposed to locations at the building façade), or any other location where public exposure is expected to be short term.
1 Hour Mean	• All locations where the annual mean and 24 and 8 hour mean objectives would apply. • Kerbside sites (e.g. pavements of busy shopping streets). • Those parts of car parks, bus stations and railway stations, etc. which are not fully enclosed, where the public might reasonably be expected to spend one hour or more. • Any outdoor locations at which the public may be expected to spend one hour or longer.	• Kerbside sites where the public would not be expected to have regular access.
15 Minute Mean	• All locations where members of the public might reasonably be expected to spend a period of 15 minutes or longer.	