

TAVISTOCK WORKS, LONDON

DUST MANAGEMENT PLAN

MARCH 2026



AIR – ODOUR - CLIMATE

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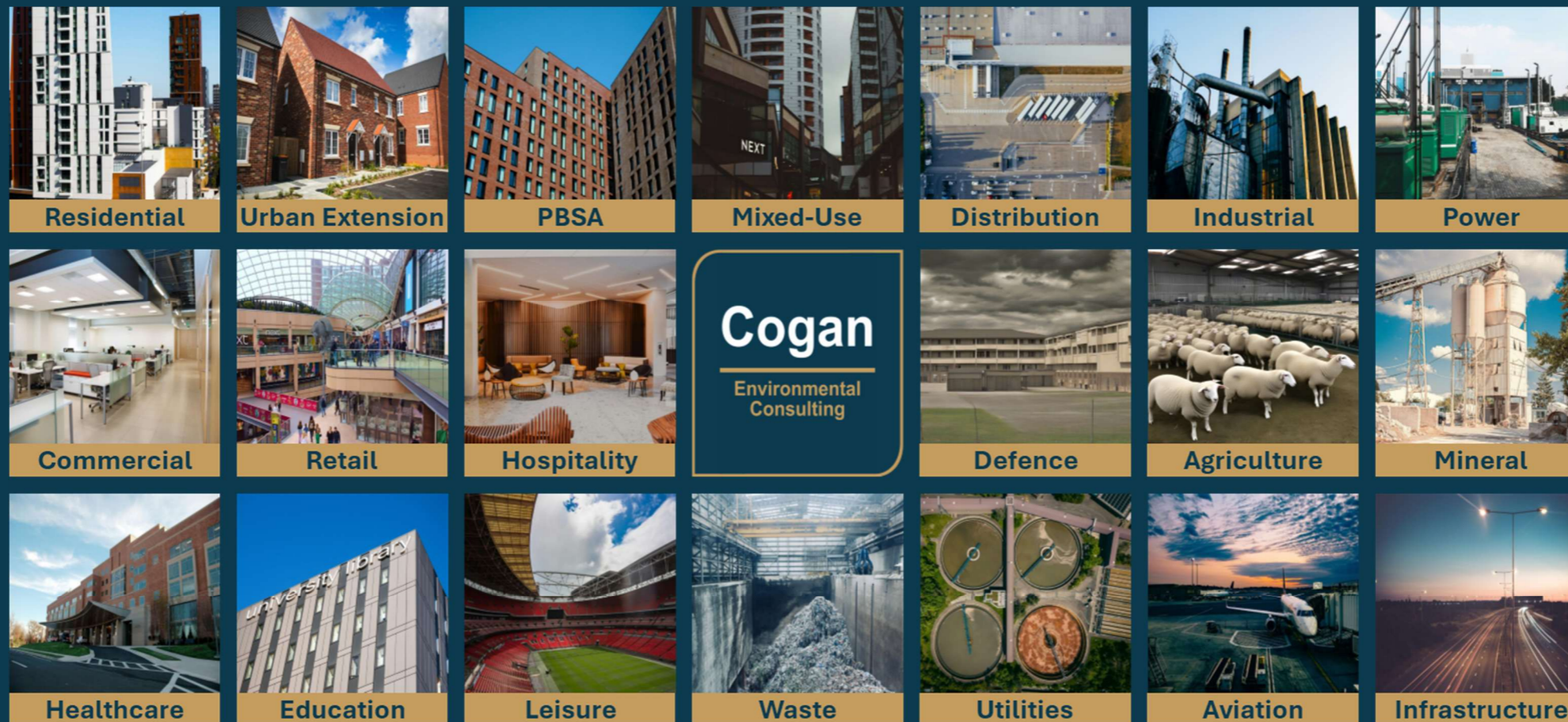
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Glossary

Term	Meaning
BRE	Building Research Establishment
GLA	Greater London Authority
IAQM	Institute of Air Quality Management
LAQM	Local Air Quality Management
LPA	Local Planning Authority
NRMM	Non-Road Mobile Machinery
PM ₁₀	Particulate Matter (dust) with a diameter of less than 10 micrometres
SAL	Site Action Level
SHEQ	Safety, health, environment & quality

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1 Introduction

1.1 Cogan Environmental Consulting Limited has been commissioned to produce a dust management plan for Tavistock Works, Hillingdon (herein called the 'Proposed Development'). This dust management plan (DMP) describes the measures to that will be applied to minimise the risk of dust impacts during the demolition and construction phase. The package of measures presented has been based on a risk assessment of potential impacts of dust and fine particulate matter (PM₁₀) emissions from the demolition and construction activities. The mitigation measures are consistent with guidance from the Greater London Authority (GLA)¹, Institute of Air Quality Management (IAQM)² and Building Research Establishment (BRE)³.

2 Proposed Development

2.1 The Proposed Development comprises demolition of existing building and replacement with 6-storey building comprising residential units, landscaping and amenity space. The proposed site plan is shown in Figure 2.1.

Figure 2.1: Proposed Site Plan (Ground Floor Level)

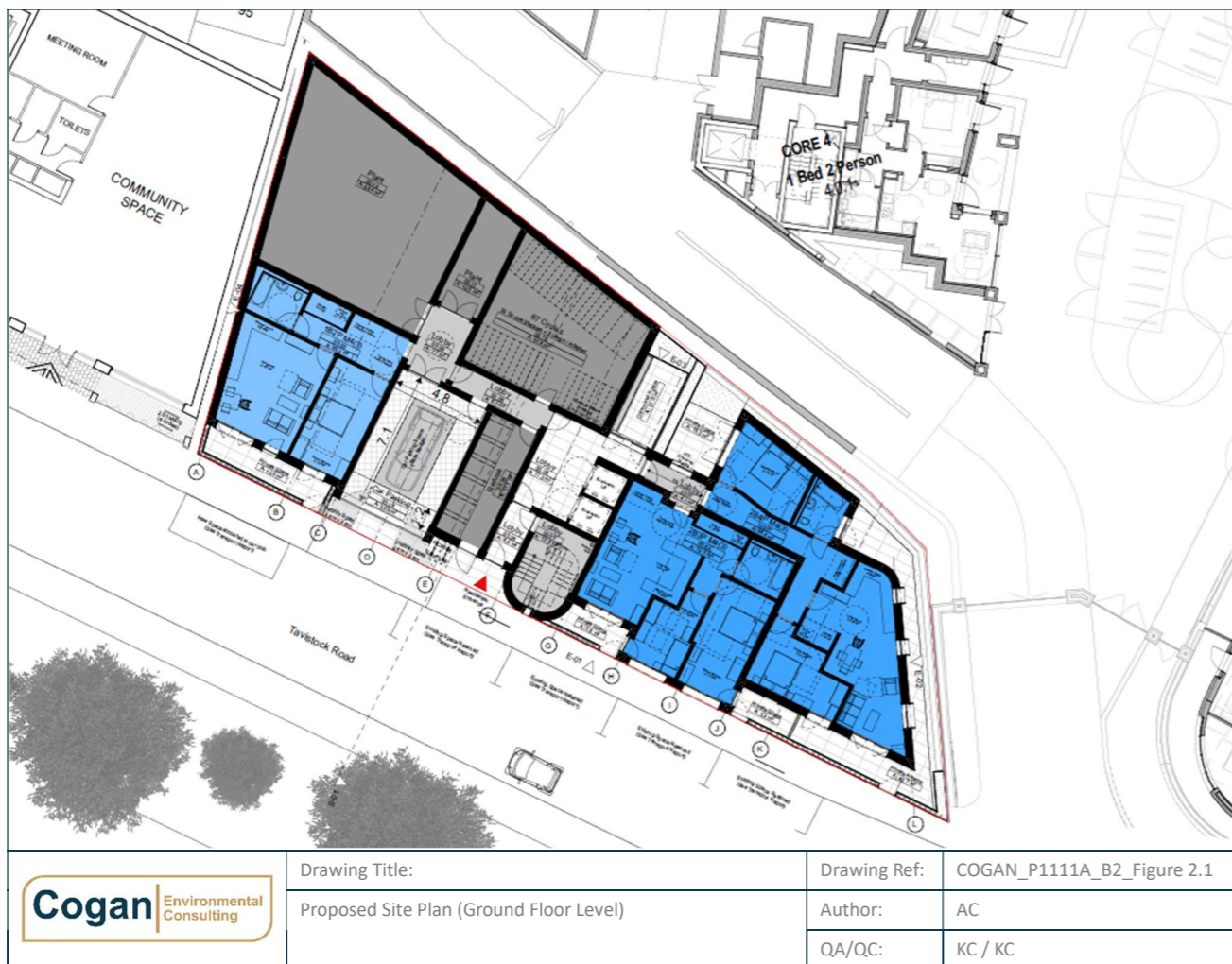
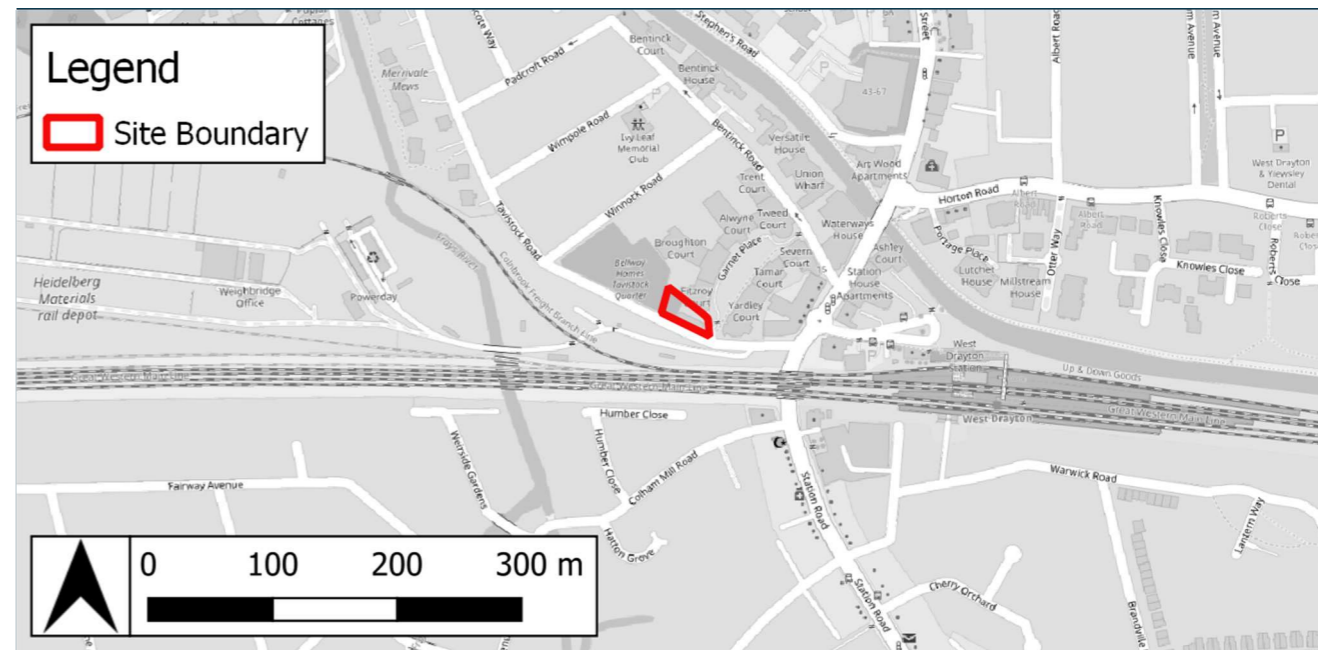


Figure notes: Imagery provided by Goldstein Heather.	Date:	11/03/2026
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2.2 The application site is situated towards the southwest central portion of Hillingdon and is currently a small car park and building on the corner of Tavistock Works and Garnet Place. It is surrounded to the north and east by high rise residential properties, to the west by a portion of land owned by Bellway Homes, and to the south by Tavistock Road and a railway. The location of the application site is shown in Figure 2.2.

Figure 2.2: Location of the Proposed Development



	Drawing Title:	Drawing Ref:	COGAN_P1111A_B2_Figure 2.2
	Location of the Proposed Development	Author:	AC
		QA/QC:	KC / KC
Figure notes: Imagery Map Data © OpenStreetMap Contributors.		Date:	11/03/2026

3 Air Quality (Dust) Risk Assessment

3.1 Effects of dust soiling are typically in relation to loss of amenity and potential nuisance effects of dust which is attributable to the coarser fraction of dust (i.e. >10 micrometres in diameter). The ambient dust relevant to health outcomes will be that measured as less than 10 micrometres in diameter (PM₁₀).

Assessment Methodology

3.2 The assessment follows the qualitative risk assessment approach set out in IAQM guidance² (as required in GLA guidance¹). The approach follows a series of steps which are explained below.

³ BRE (2015). Air quality, radon and airtightness: A collection of BRE expert guidance on the design and construction of new and existing buildings (AP 303). Pollution control guide, Controlling particles, vapour and noise pollution from construction sites.

¹ GLA (2014). The control of dust and emissions during construction and demolition supplementary planning guidance.
² IAQM (2024). Guidance on the assessment of dust from demolition and construction 2024.

Step 1

3.3 Initial distance-based screening is carried out to determine whether there is any risk of dust effects. The screening criteria are:

- 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).

3.4 Where there are no receptors within the screening distances, the effects can be discounted. Where receptors are identified, the assessment proceeds to Step 2.

Step 2

3.5 Step 2 of the IAQM approach is to assess the risk of dust effects for four categories; demolition, earthworks, construction and trackout.

3.6 The guidance sets out indicative criteria for dust emission magnitude classifications of Small, Medium, and Large. The classification depends on a variety of considerations, including the scale of dust generating activities, the dustiness of materials and soil, the duration of works (including phasing), and professional judgement.

3.7 The magnitude of dust effects is then combined with the sensitivity of the local area to any dust effects (i.e. the sensitivity and number of human and ecological receptors) to determine the risk of dust effects without any mitigation.

3.8 The sensitivities of receptors should be classified as low, medium or high sensitivity in terms of dust soiling and human health/ecological effects, and take account of a number of factors including the uses of properties, the proximity and number of receptor, baseline dust (PM₁₀) concentrations, and other site-specific factors (such as barriers shielding receptors from dust).

3.9 The IAQM guidance provides examples of high, medium and low sensitivity receptors. Residential properties are considered high sensitivity receptors to dust soiling and human health effects. Commercial properties are generally considered medium sensitivity to human health effects, and those reliant on appearance are considered high sensitivity receptors to dust soiling and others are considered medium sensitivity to dust soiling. Industrial facilities are considered low sensitivity receptors. For ecological effects, in general, international statutory nature conservation sites are considered high sensitivity, national statutory nature

conservation sites are considered medium sensitivity, and non-statutory nature conservation sites are considered low sensitivity.

Step 3

3.10 Based upon the risk of dust effects identified in Step 2, appropriate site-specific mitigation measures are then identified.

Step 4

3.11 With the identified mitigation measures implemented, consideration is then given to residual effects. Sufficient mitigation measures should be identified in Step 3 to ensure residual effects are not significant.

Impact Assessment

Step 1

3.12 Following the IAQM qualitative risk assessment approach, sensitive human and ecological receptors in the local area have been reviewed in relation to the distances set out in the guidance.

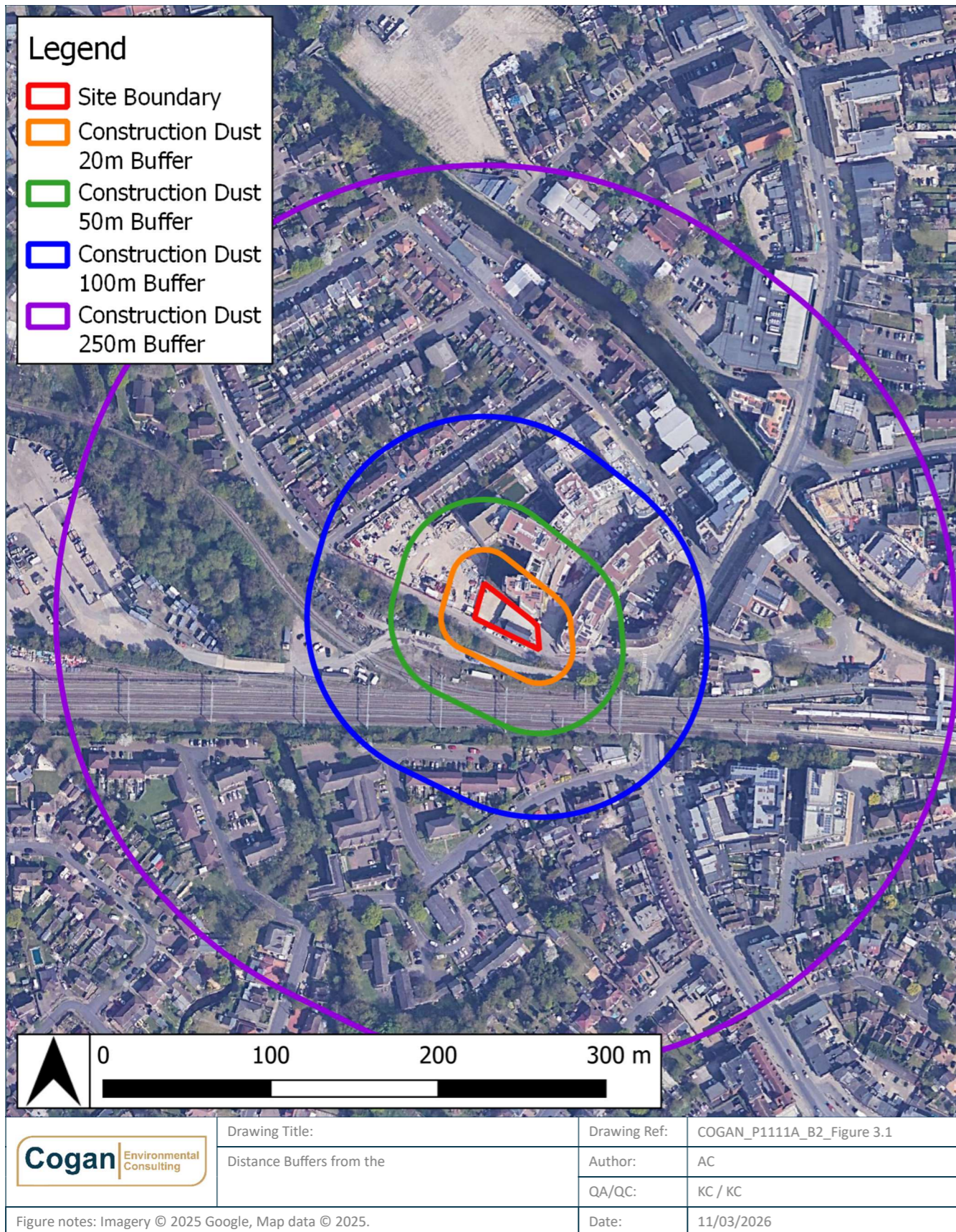
3.13 For onsite works, the distances are 20 m, 50 m, 100 m and 250 m. These are shown in Figure 3.1. The review has identified:

- there are human receptors within the distances; and
- there are no ecological receptors within 50 m of onsite works.

3.14 Hence, further assessment is required for human health receptors. No further assessment of ecological receptors will be made.

3.15 Since there will not be any vehicles travelling onto the site, there will be no risk of potential dust or mud being tracked out along local roads. There are therefore no sensitive receptors in relation to trackout. No further assessment of trackout-related dust effects will be made.

Figure 3.1: Distance Buffers from the Proposed Development



Step 2

Dust Emission Magnitudes

Demolition

3.16 There will be some demolition on site, to remove the current building and hard standing for the car park. Dust will arise mainly from the demolition, handling and transport of dusty materials (such as building materials). Based on the criteria set out in the IAQM guidance, the dust emission magnitude for demolition is considered Small.

Earthworks

3.17 The dust generated by the earthworks depends on the nature of the earth and soil at the application site. Relevant characteristics of the soil have been obtained from the British Geological Survey's UK Soil Observatory⁴ and are set out in Table 3.1. When the soil is dry, it is considered to have the potential to be slightly dusty.

Table 3.1: Soil conditions at the application site

Category	Record
European Soil Bureau Description	Residual Clay and Loamy Loess
Soil texture	Medium to light (silty) to heavy Silt to silty loam
Subsoil grain size	Argillaceous ^a
Soil layer thickness	Deep ^b
Table notes:	
a.	A clay and silt-rich subsoil.
b.	The soil and subsoil can be easily dug to a depth of more than 1 metre.

3.18 The exact area of earthworks is unknown. The total site area is approximately 680 m². Dust will arise mainly from the handling and transport of dusty materials (such as dry soil). Based on the criteria set out in the IAQM guidance, the dust emission magnitude for earthworks is considered Small.

Construction

3.19 The Proposed Development will involve the construction of a six-storey residential building. The total volume for construction is likely to be between 12,000 - 75,000 m³. Based on the criteria set out in the IAQM guidance, the dust emission magnitude for construction is considered Medium.

Trackout

3.20 There will not be any trackout.

⁴ British Geological Survey. (2024). UK Soil Observatory (UKSO). Available at: <http://mapapps2.bgs.ac.uk/ukso/home.html>

Summary of Dust Emission Magnitudes

3.21 The dust emission magnitudes for the Proposed Development are summarised in Table 3.2.

Table 3.2: Summary of dust emission magnitudes

Activity	Dust Emission Magnitude
Demolition	Small
Earthworks	Small
Construction	Medium
Trackout	N/a

Sensitivity of the Local Area

3.22 Baseline annual mean PM₁₀ concentrations in the local area have been reviewed. PM₁₀ concentrations in the local area have been identified from the London Atmospheric Emissions Inventory (LAEI)⁵. Produced by the Greater London Authority (GLA) and Transport for London (TfL), the LAEI includes modelled ground level concentrations at a 20 m x 20 m grid resolution across Greater London. The maximum PM₁₀ concentrations in the vicinity of the site are predicted to be 13.7 µg/m³.

3.23 Figure 3.1 shows the distances over which receptors need to be considered and demonstrate that:

- There are between 10 – 100 high sensitivity properties within 20 m of the application site. Following the IAQM guidance, the sensitivity of the area to dust soiling effects from onsite works will be High.
- Baseline annual mean PM₁₀ concentrations in the local area are estimated to be below 24 µg/m³. Following the IAQM guidance, the sensitivity of the area to human health effects from onsite works will be Low.

3.24 The sensitivity of the local area is summarised in Table 3.3.

Table 3.3: Summary of sensitivities of the local area

Effect Stage	Activity			
	Demolition	Earthworks	Construction	Trackout
Dust Soiling	High	High	High	N/A
Human Health	Low	Low	Low	N/A
Ecological	N/A	N/A	N/A	N/A

Risk of Dust Effects

3.25 Using the risk matrices set out in the IAQM guidance, the dust emission magnitudes in Table 3.2 have been combined with the sensitivities in Table 3.3 to derive the risks of dust effects, without mitigation. These are presented in Table 3.4.

Table 3.4: Risk of dust effects

Effect Stage	Activity			
	Demolition	Earthworks	Construction	Trackout
Dust Soiling	Medium Risk	Low Risk	Medium Risk	N/A
Human Health	Negligible Risk	Negligible Risk	Low Risk	N/A
Ecological	N/A	N/A	N/A	N/A

Step 3

3.26 Measures to mitigate emissions will be required during the construction phase of the Proposed Development in order to minimise dust effect upon nearby sensitive receptors.

3.27 Typically, appropriate measures would be identified based upon the risks identified in Step 2 (Table 3.4). Appropriate mitigation measures have been identified based on the IAQM guidance.

3.28 Where mitigation measures rely on water, it is expected that only sufficient water will be applied to damp down the material. There should not be any excess to potentially contaminate local watercourses.

3.29 With the identified mitigation measures implemented, the residual effects are judged to be ‘not significant’. 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 the time, for instance under adverse weather conditions. The local community may therefore experience occasional, short-term annoyance. The scale of this would not normally be considered sufficient to change the conclusion that the effects will be ‘not significant’.

4 Mitigation Measures

4.1 Based on the risk level set out above, a package of dust management measures is set out in Table 4.1. These focus on prevention, suppression and containment.

4.2 The mitigation measures set out below are consistent with IAQM² and BRE³ guidance.

Table 4.1: Dust Management

Communication
The name and contact details of person(s) accountable for air quality and dust issues will be displayed on the site boundary. This will be either the Construction Contractor Site Manager.
The head office contact information will be displayed on signage on the site boundary.
A stakeholder communications plan will be developed and implemented that includes community engagement before work commences on site.
Site management

⁵ GLA and TFL (2023). London Atmospheric Emissions Inventory (LAEI) 2019, GLA and TFL Air Quality, London Datastore. Available at: <https://data.london.gov.uk/dataset/london-atmospheric-emissions-inventory--laei--2019>

All dust and air quality complaints will be recorded, cause(s) identified, appropriate measures will be carried out to reduce emissions in a timely manner, and the measures taken will be recorded.
The complaints log will be made available to the local authority when asked.
Any exceptional incidents that cause dust and/or air emissions, either on- or off-site, will be recorded in the log book and as well as the action taken to resolve the situation.
Off-site fabrication will be used where possible to avoid cutting materials on site.
All site personnel will be trained in best practice for dust control by regular Environmental Toolbox talks.
Monitoring
Daily on-site and off-site inspections will be undertaken, to monitor dust, record inspection results, and make the log available to the local authority when asked. This will include regular dust soiling checks of surfaces such as street furniture, cars and window sills within 100 m of site boundary, with cleaning to be provided if necessary.
Regular site inspections will be carried out to monitor compliance with this Dust Management Plan, with inspection results recorded and made available to the local authority when asked.
Regular inspection and cleaning of local highways and site boundaries for dust deposits will be conducted.
The frequency of site inspections will be increased when activities with a high potential to produce dust are being carried out on site and during prolonged dry or windy conditions.
Where dust issues occur, dust deposition, dust flux, or real-time PM ₁₀ continuous monitoring locations will be agreed with the Local Authority. The monitoring strategy is set out in Dust Monitoring Programme.
Preparing and maintaining the site
The site layout will be planned so that machinery and dust causing activities are located away from receptors, as far as is possible.
The site or specific operations will be fully enclosed where there is a high potential for dust production and the site is active for an extensive period.
Wind nets will be installed around scaffolding.
Site fencing, barriers and scaffolding will be kept clean using wet methods.
Materials that have a potential to produce dust from site will be removed as soon as possible, unless being re-used on site. If they are being re-used on site, they will be covered.
Stored materials liable to dust generation shall be dampened down, covered with tarpaulin, or otherwise contained as far as reasonably possible.
Handling and storage areas will be sited as far away as is reasonably and practically possible from public areas, actively managed and fine, dry material will be stored inside enclosed shield/coverings or within central storage areas. Any storage areas that are not enclosed will be covered / sheeted. Prolonged storage of debris on site will be avoided. Vehicles carrying dusty materials to or from of the site shall be sheeted down to prevent any escape of materials.
Operating vehicle/machinery and sustainable travel
Engines of plant, machinery, and lorries shall be turned off at all times when not in use – no idling.
The use of diesel- or petrol-powered generators will be avoided. Mains electricity or battery powered equipment will be used where practicable.
All plant and equipment shall be maintained in accordance with manufacturer’s recommendations to ensure emissions to atmosphere are minimised.
A Travel Plan will be implemented that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing).
All on-road vehicles will comply with the requirements of the London Low Emission Zone and the London NRMM standards.
Operations
Only cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems, will be used.

An adequate water supply will be used on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.
Any equipment used to cut paving blocks, kerbs, flagstones etc. shall be operated with a water suppression attachment or a dust filter.
Enclosed chutes and conveyors and covered skips will be used.
It will be ensured that equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.
General housekeeping measures will be used including damping down and sweeping/hovering up of dusty materials.
Waste
Materials will be loaded into lorries/skips within designated bays/areas.
Demolition
The inside buildings will be soft stripped (retaining walls and windows where possible, to provide a screen against dust).
Effective water suppression will be used during demolition operations as necessary. Hand held sprays are more effective than hoses attached to equipment as the water can be directed to where it is needed. In addition high volume water suppression systems, manually controlled, can produce fine water droplets that effectively bring the dust particles to the ground.
Any biological debris will be bagged and removed, or damp down.
Monarflex will be used on scaffolding.
Construction
Scabbling (roughening of concrete surfaces) will be avoided where possible.
Where relevant, bulk cement and other fine powder materials delivered will be stored in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.
For smaller supplies of fine powder materials, it will be ensured that bags are sealed after use and stored appropriately to prevent dust.
Where relevant, sand and other aggregates will be stored in bunded areas and not allowed to dry out, unless this is required for a particular process, in which case appropriate additional control measures will be put in place.
Monarflex will be used on scaffolding.

5 Roles and Responsibilities

- 5.1 The day-to-day operations at the site will be the responsibility of the Construction Contractor Site Manager. All personnel will be responsible for minimising any dust emissions from the site during the demolition and construction period.
- 5.2 All construction workers will be trained in their responsibilities with regard to dust control at the site. The Construction Contractor Site Manager will maintain a statement of training requirements for each operational position, and a record will be kept detailing the training received by each employee.
- 5.3 The name and contact details of the Construction Contractor Site Manager will be displayed at the site’s boundary. The sign will also include the address and phone number for the Construction Contractor’s head office.
- 5.4 Regular site inspections will be carried out, either by the Construction Contractor Site Manager or a delegated representative, to monitor compliance with the Dust Management Plan.

- 5.5 Visual inspections will cover both the site and the surroundings areas up to 100 m from the site boundary. The results will be recorded and made available to the Local Planning Authority (LPA) upon request. The frequency of these inspections will be greatest while demolition and construction works are being carried out, or during any prolonged dry or windy weather.
- 5.6 If any complaints are received, they will be investigated by the Construction Contractor Site Manager or a delegated representative, who will record the complaint, identify the cause, take appropriate measures to reduce emissions in a timely manner, and record the measures taken. This information will be made available to the LPA upon request.
- 5.7 If any exceptional dust and/or air emissions occur, either on site or offsite, the Construction Contractor Site Manager or a delegated representative will record the issue and any action taken. This information will be made available to the LPA upon request.
- 5.8 Where relevant, the Construction Contractor Site Manager will liaise with other local construction sites, to ensure plans are coordinated and dust and particulate matter emissions are minimised. It is important to understand the interactions of the off-site transport/deliveries which might be using the same strategic road network.
- 5.9 Contractors will be required to confirm the approach to dust suppression and management to the Construction Contractor Site Manager prior to the activity commencing.

6 Monitoring and Reporting

- 6.1 Following IAQM guidance², and GLA requirements¹, dust (PM₁₀) monitoring will be required. The monitoring and reporting requirements and approach are set out in Section 8.

7 Review of the Dust Management Plan

- 7.1 The Construction Contractor Site Manager and SHEQ advisor will review the Dust Management Plan every six months, in light of any complaints or issues that have been identified during the previous six months. The following issues will be considered during the review:
 - Effectiveness of mitigation measures employed;
 - Additional mitigation measures implemented within the previous 6 months;
 - Complaints received in relation to dust impacts at offsite receptors;
 - Review of any dust events recorded within the previous 6 months;
 - Review of the effectiveness of the visual monitoring scheme; and
 - Review of the effectiveness of personnel training on dust awareness.

- 7.2 Should any control measures be shown to be failing or should a need for further control measures be identified, new controls will be agreed and implemented in an updated Dust Management Plan.

8 Dust Monitoring Programme

- 8.1 Following IAQM guidance², and GLA requirements¹, dust (PM₁₀) monitoring will be required.
- 8.2 Where necessary, monitoring will be carried out in order to fulfil a number of objectives:
 - to ensure that the construction activities do not give rise to any exceedances of the air quality objectives for PM₁₀, or any exceedances of recognised threshold criteria for dust deposition/soiling;
 - to ensure that the agreed mitigation measures to control dust emissions are being applied and are effective;
 - to provide an 'alert' system with regard to increased emissions of dust, and a trigger for cessation of site works or application of additional abatement controls;
 - to provide a body of evidence to support the likely contribution of the site works in the event of complaints; and
 - to help to attribute any high levels of dust to specific activities on site in order that appropriate action may be taken.
- 8.3 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.

Air Quality (Dust) Risk Assessment

- 8.4 The dust risk assessment has identified a Medium risk of dust soiling effects during demolition and construction activities. In terms of human health, the assessment has identified a Low risk of effects, largely due to baseline PM₁₀ levels being low.
- 8.5 With the implementation of mitigation measures, the residual impacts are considered to be 'not significant'. However, the assessment does not preclude the occurrence of elevated dust and all construction sites should be monitored for the generation of air pollution. As set out in GLA¹ and IAQM² guidance it is essential to monitor for dust generation, including PM₁₀.

Dust Management Plan - Monitoring Measures

- 8.6 Relevant monitoring mitigation measures set out below in Table 8.1 and are consistent with IAQM² and BRE³ guidance.

Table 8.1: Monitoring Measures

Site management
All dust and air quality complaints will be recorded, cause(s) identified, appropriate measures will be carried out to reduce emissions in a timely manner, and the measures taken will be recorded.
The complaints log will be made available to the local authority when asked.
Any exceptional incidents that cause dust and/or air emissions, either on- or off-site, will be recorded in the log book and as well as the action taken to resolve the situation.
Monitoring
Daily on-site and off-site inspections will be undertaken, to monitor dust, record inspection results, and make the log available to the local authority when asked. This will include regular dust soiling checks of surfaces such as street furniture, cars and window sills within 100 m of site boundary, with cleaning to be provided if necessary.
Regular site inspections will be carried out to monitor compliance with this Dust Management Plan, with inspection results recorded and made available to the local authority when asked.
The frequency of site inspections will be increased when activities with a high potential to produce dust are being carried out on site and during prolonged dry or windy conditions.
Where dust issues occur, dust deposition, dust flux, or real-time PM ₁₀ continuous monitoring locations will be agreed with the Local Authority.

Monitoring Requirements

8.7 All monitoring strategies should be proportional to the potential risk of impacts. The IAQM guidance sets out the requirements for monitoring, which are set out below and are dependent on the outcomes of the risk assessment.

Low Risk Site

- Take into account the impact of air quality and dust on occupational exposure standards to minimise worker exposure and breaches of air quality objectives that may occur outside the site boundary, such as by visual assessment;
- Keep an accurate log of complaints from the public, and the measures taken to address any complaints, where they were required;
- Determine the prevailing wind direction across the site using data from a nearby weather station; and
- Where appropriate, operate a minimum of two automatic particulate monitors to measure PM₁₀ levels at either end of the line or at specific sensitive receptor locations. These instruments should provide data that can be downloaded in real-time by the local authority.

Medium Risk Site

- Take into account the impact of air quality and dust on occupational exposure standards to minimise worker exposure and breaches of air quality objectives that may occur outside the site boundary, such as by visual assessment;
- Keep an accurate log of complaints from the public, and the measures taken to address any complaints, where they were required;

- Determine the prevailing wind direction across the site using data from a nearby weather station;
- Where appropriate, operate a minimum of two automatic particulate monitors to measure PM₁₀ levels at either end of the line or at specific sensitive receptor locations. These instruments should provide data that can be downloaded in real-time by the local authority.
- If required, supplement monitoring with hand held monitors to get on the-spot readings at selected points, such as close to sensitive receptors; and
- Consider also monitoring dust deposition and soiling rates as these can be used to indicate nuisance.

High Risk Site

- Take into account the impact of air quality and dust on occupational exposure standards to minimise worker exposure and breaches of air quality objectives that may occur outside the site boundary, such as by visual assessment;
- Keep an accurate log of complaints from the public, and the measures taken to address any complaints, where they were required;
- Determine the prevailing wind direction across the site using data from a nearby weather station or by setting up a weather station on site to measure local wind direction and speed;
- Where appropriate, operate a minimum of two automatic particulate monitors to measure PM₁₀ levels at either end of the line or at specific sensitive receptor locations. These instruments should provide data that can be downloaded in real-time by the local authority.
- If required, supplement monitoring with hand held monitors to get on the-spot readings at selected points, such as close to sensitive receptors; and
- Carry out dust deposition and soiling rate assessments following recommended procedures;
- Carry out a visual inspection of site activities, dust controls and site conditions and record in a daily dust log;
- Identify a responsible trained person on- site for dust monitoring who can access real-time PM₁₀ data from automatic monitors (e.g. at hourly or 15-minute intervals). Ensure that adequate quality assurance/quality control is in place.

Determination of Required Monitoring

- 8.8 The Air Quality (Dust) Risk Assessment has identified a Low to Medium risk of dust effects and it is therefore appropriate to base the monitoring strategy on the requirements for Medium risk sites.
- 8.9 Given the likely risks, site specific monitoring is required to demonstrate the efficacy of mitigation measures. For the duration of demolition and construction activities, monitoring will be undertaken as detailed below.

Monitoring Considerations

Site Action Levels

- 8.10 Should dust issues occur and real-time PM₁₀ continuous monitoring be required, then this monitoring will be carried out in relation to a Site Action Level (SAL), above which steps are taken to reduce and minimise the risk of dust related effects. SALs provide a mechanism to ensure dust mitigation measures are both adequate and are being applied correctly. The IAQM and GLA have provided guidance of what SALs are appropriate.
- The IAQM guidance recommends a trigger level of 190 µg/m³ as a 1-hour mean PM₁₀ concentration.
 - The GLA guidance recommends a trigger level of 200 µg/m³ as a 15-minute mean PM₁₀ concentration. The guidance also states *“some PM₁₀ reference instruments cannot measure a 15-minute mean. As an alternative 50 µg/m³ is suggested as a 1-hour mean having subtracted background concentrations (to account for regional pollution episodes etc). A 1-hour mean of 50 µg/m³ from local sources is equivalent to a 15 min mean of 200 µg/m³ and would be a compromise, taking into account the longer averaging period. The one-hour limit is designed to prevent any complaints from people living or working close to the site”*.
- 8.11 Where the trigger level is breached due to construction contributions from the site, action should be immediately taken. Action should not be taken when the trigger level is breached due to background concentrations. Background concentrations during the construction phase are predicted to be well below regulated thresholds and are therefore not expected to cause a breach of the trigger level. Further details of background concentrations are set out in paragraph 3.22. Should any alerts be triggered, they are likely to be due to construction activities and appropriate mitigation will be applied.

Baseline Monitoring

- 8.12 Baseline monitoring is useful where there is a specific need to determine site-specific SALs, or where there are specific sensitivities with regard to exceedances of regulated air quality thresholds. This is not considered necessary for the Proposed Development.
- 8.13 Baseline monitoring is often asked to be carried out before any works are undertaken onsite, typically for a period of 3 months, but this is typically impractical (e.g. the site would not be secure) and is less representative of baseline conditions, since concentrations vary depending on season (due to temperature and precipitation having large effects on airborne dust). It is possible for baseline monitoring to be carried out during the construction works, by removing periods containing on site dust events from the measurements. This would enable seasonal effects to be negated.

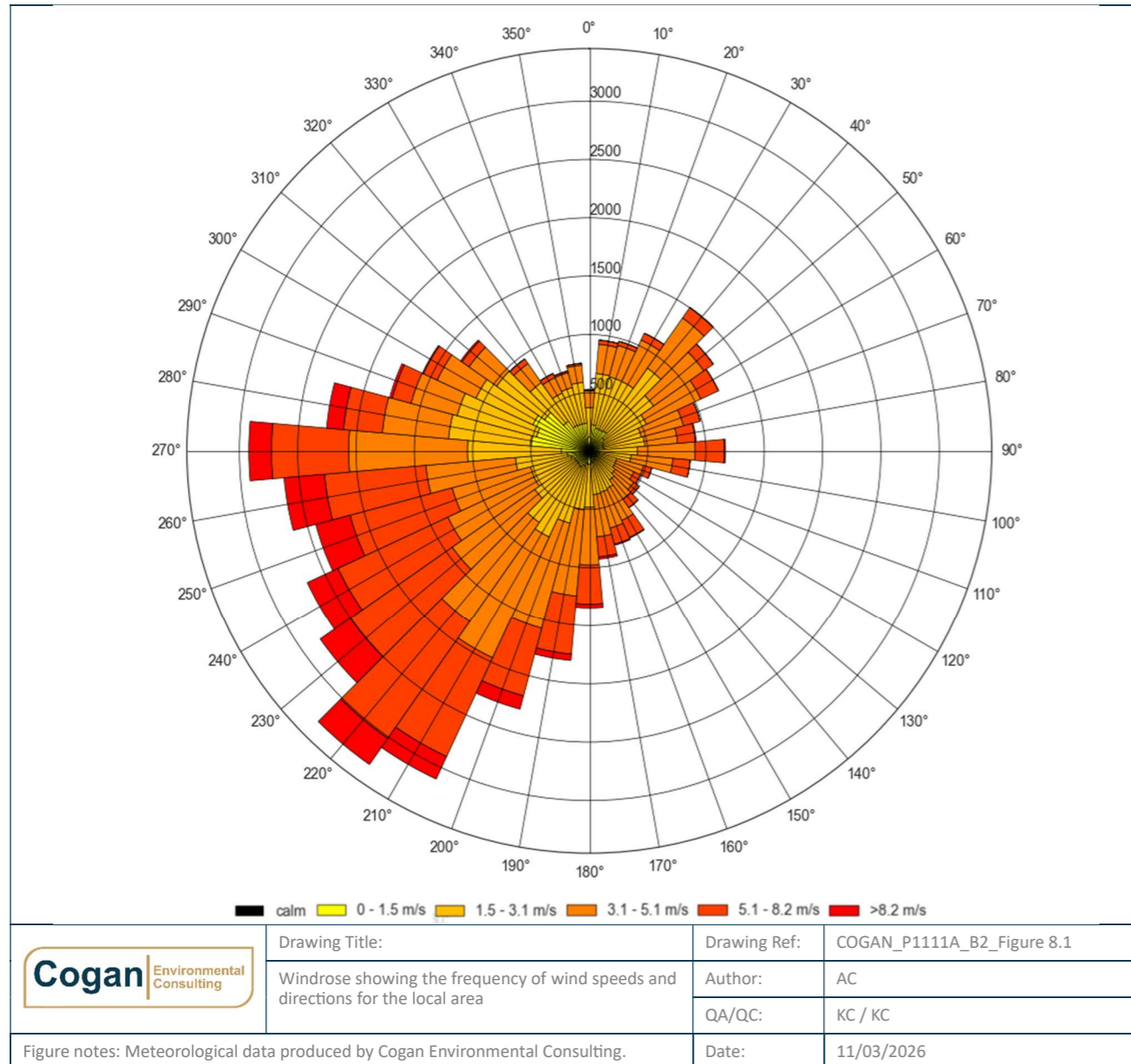
Meteorological Conditions

- 8.14 The weather plays an important role in determining the potential risk of dust effects. During wet conditions, dust will be damped down and there will be minimal risk. Conversely, dry weather reduces particle cohesion

and fine dust particles may be raised and blown from the site, increasing the potential risk upon the local area, with the risk increased during windy conditions. High risk meteorological conditions include:

- Wind speeds greater than 5.5 m/s; and
 - Prolonged periods of dry weather.
- 8.15 Relevant weather conditions for the local area have been taken from the Heathrow Airport Meteorological Station. Figure 8.1 presents a windrose showing the frequency of wind speeds and directions for 2019 to 2024 from this meteorological station.
- 8.16 The prevailing wind blows from the west/southwest towards to east/northeast. Hence, sensitive receptors to the east/northeast are likely to be at higher risk of dust effects. This includes:
- Residential properties directly to the north of the Proposed Development (Fitzroy Court); and
 - Residential properties to the east of the Proposed Development, on the opposite side of Garnet PI (Yardley Court).

Figure 8.1: Windrose showing the frequency of wind speeds and directions for the local area



Baseline Monitoring

8.18 Baseline monitoring is not proposed for this site to determine a site-specific SAL and there are no current predicted breaches of the PM₁₀ air quality objectives in the immediate vicinity of the site. The precautionary SAL set out by the GLA will be used.

Visual Assessment

8.19 Daily visual inspections of the site will be carried out by the Construction Contractor Site Manager, or an appropriately trained worker. These inspections are only needed on days when dust may be created by the Proposed Development; no inspections will be undertaken on Sundays or Bank Holidays.

8.20 The inspection will consist of a walk around the perimeter of site and making observations about dust emissions and dust soiling at a number of locations, particularly focusing of locations upwind of onsite activities. The locations are shown in Figure 8.2. The observations will include regular dust soiling checks of surfaces such as street furniture, cars and windowsills close to the site boundary, with cleaning to be provided where necessary.

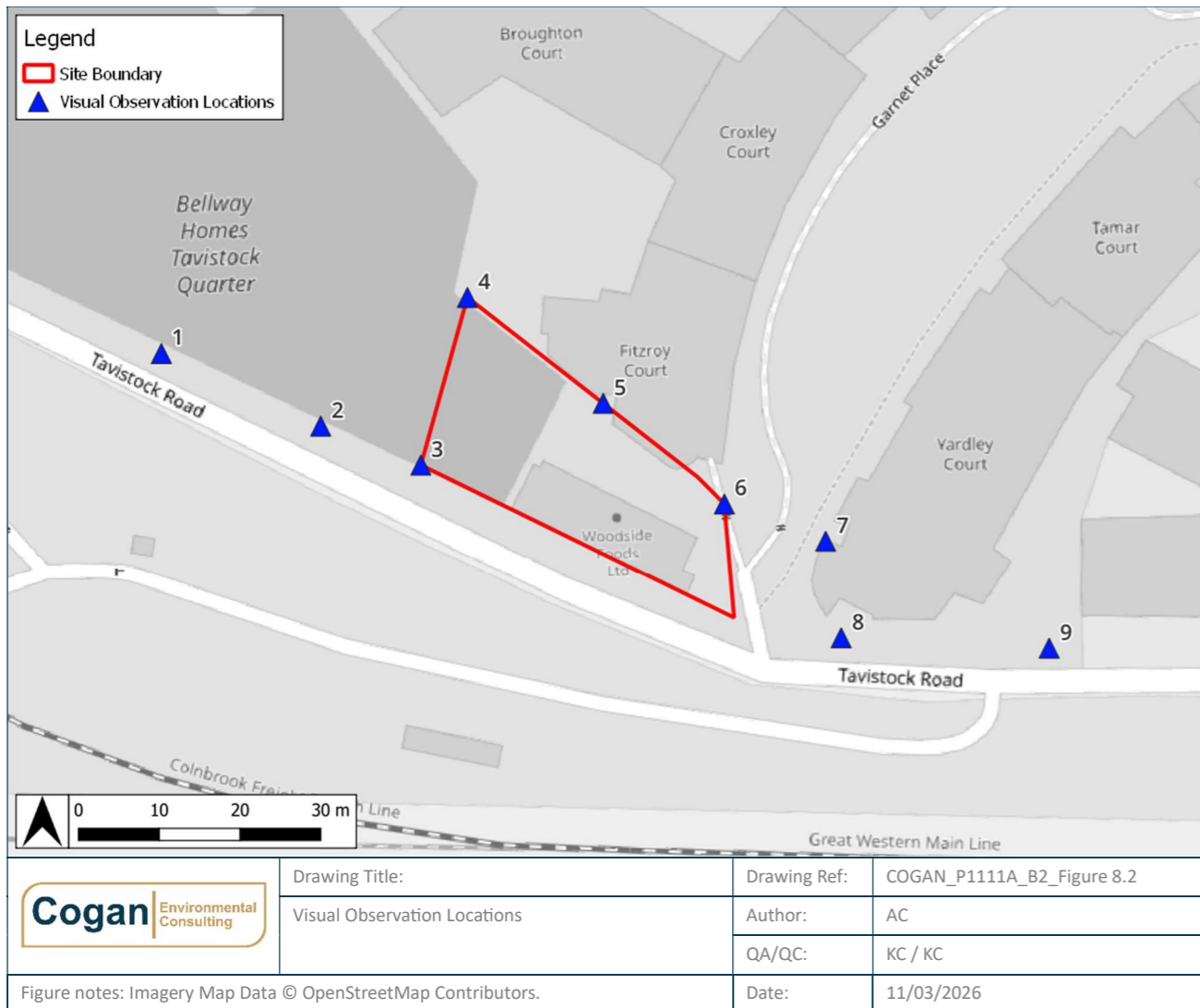
8.21 Inspection results will be recorded in a Daily Inspection Checklist and any specific notes relating to dust soiling or dust generating activities will be recorded in a Daily Inspection Notes form. These documents will be made available to LPA when requested.

Procedures for Monitoring

Meteorology

8.17 The wind speed and direction will be monitored by the Construction Contractor Site Manager in order to alert personnel to potential adverse conditions that may trigger the additional mitigation measures. This will be either by direct observation or from published weather forecasts. Meteorological conditions at the time of any significant dust emissions will be recorded in a Dust Event Form.

Figure 8.2: Visual Observation Locations



- 8.22 If significant dust is identified beyond the site boundary, a Dust Event Form should be filled in and the event immediately investigated, with remedial action applied as necessary to minimise dust. The Construction Contractor Site Manager will review Dust Event Forms regularly to ensure that any necessary actions have been implemented, and to identify problem areas where additional mitigation against further dust emissions may be necessary.
- 8.23 Should any complaints be received relating to dust soiling, a Dust Complaint Form will be completed. The Construction Contractor Site Manager will review Dust Complaint Forms regularly to ensure that any necessary actions have been implemented, and to identify problem areas where additional mitigation against further dust emissions may be necessary. Persistent dust complaints may also be investigated via the implementation of a period of dust soiling monitoring.

Dust Soiling Monitoring

- 8.24 Routine dust soiling monitoring is not considered necessary. However, in the event that complaints are received regarding dust soiling close to the site, then a period of dust soiling monitoring may be undertaken to determine whether or not the dust affecting the complainants is likely to be generated by the site, and whether or not the level of dust soiling experienced has the potential to be considered a nuisance.
- 8.25 Where this is deemed necessary, dust soiling monitoring will be undertaken for a minimum period of 4-6 weeks but may be continued for longer periods if high levels of dust soiling are measured.
- 8.26 Where necessary, after the establishment of a dust issue, dust soiling monitoring will involve the deployment of monitors such as Frisbee gauges or glass slide dust gauges at a number of locations including at affected receptors and at the boundary of the site closest to these properties, as well as at background locations upwind of dust generating activities.
- 8.27 The results of any periods of dust soiling monitoring will be summarised in a report, which will be provided to the LPA on request. Where any high levels of dust soiling are identified additional dust mitigation measures will be implemented. Further monitoring may then be undertaken to demonstrate the effectiveness of such mitigation measures.

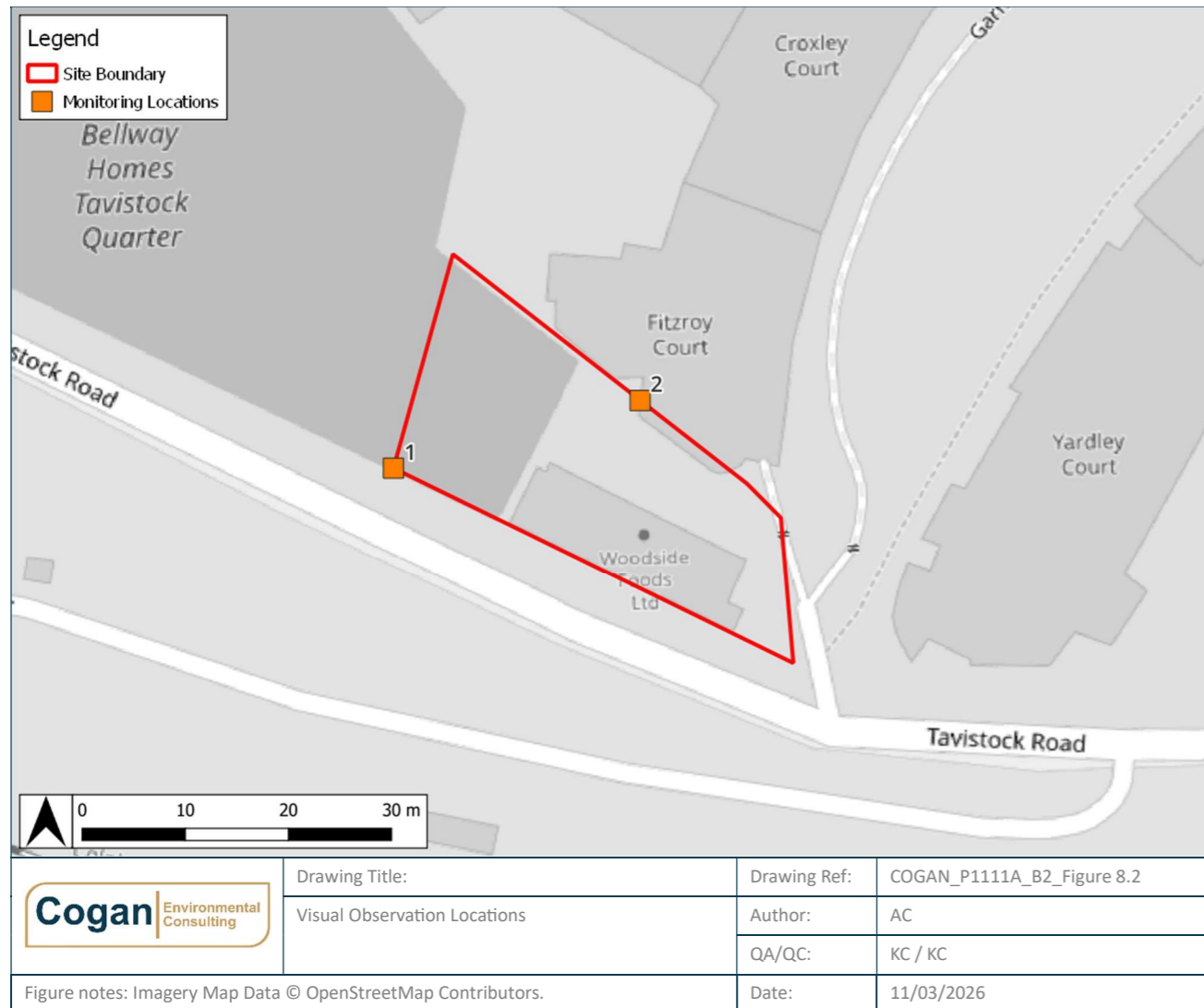
Airborne Particulate Matter Monitoring

- 8.28 Light-scattering or optical monitors (nephelometer monitors) are not a reference equivalent method for the determination of airborne particulates, however, they do provide continuous data in near real-time that may be related to site events and are considered by many regulators as an appropriate and economical technique for this type of application. Since these types of monitors enable alert systems to be implemented, they will be used. Further details on the equipment are set out further below.
- 8.29 These instruments measure continuous concentrations of the PM₁₀ and upload data to online cloud-based web platforms, enabling 'on request' examination of unratified data. The instruments can provide 15-minute average concentrations, therefore the 15-minute average PM₁₀ SAL of 200 µg/m³ will be implemented.

Site locations

- 8.30 Based on the dust emission magnitudes and sensitivity of the local area, PM₁₀ monitoring using two monitors will be utilised during the construction phase. The indicative monitoring locations are presented in Figure 8.3.

Figure 8.3: Indicative Monitoring Locations



Alert Actions

- 8.31 If the SAL is reached, a warning email will be sent to the Construction Management Contractor project manager. Where requested, this can also be sent to the LPA. The project manager will review the mitigation measures implemented at that time to ensure best practice measures are in place.
- 8.32 If the Construction Management Contractor project manager receives an email stating that the SAL has been exceeded they (nominated person is on site in his absence) will:
 - review the activities on site and determine if there is dust being generated from on-site activities;
 - identify if the exceedance is deemed to be from the site activities, and if so ensure that additional mitigation is applied as soon as is practicable;
 - these additional mitigation measures will remain in place until a time that the ambient PM₁₀ concentrations are below the SAL;

- if the exceedance is deemed to be from the site activities, this shall be recorded in the site logbook and made available to the LPA when requested; and
- where it is deemed that the source of the SAL exceedance is not a result of on-site activities, then the concentrations measured on site will be compared to the PM₁₀ concentrations measured at nearby automatic monitoring stations, so as to identify any region-wide pollution episodes.

- 8.33 Where the SAL is being significantly breached (two 15-minute average exceedances in two consecutive 15-minute runs) the project manager should stop work immediately and ensure best practice measures are in place before restarting.
- 8.34 Where there are breaches of the SAL, the LPA may use their powers to prevent a statutory nuisance.
- 8.35 A review of the monitoring and reporting methods will also be undertaken if measured concentrations are consistently low (well below the SAL). Should this occur, the LPA may be consulted to determine whether to continue monitoring on site.

Operation, Data Management, QA/QC Procedures and Reporting

- 8.36 The Construction Contractor Site Manager, or other delegated responsible 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 responsible person shall liaise regularly with LPA and other stakeholders, where required.

Data management, QA/ QC Procedures

- 8.37 Emissions control procedures and equipment will only work satisfactorily if carried out or used appropriately. The Construction Contractor Site Manager will maintain good housekeeping and ensure that all equipment is well maintained and used appropriately. All site personnel will be made 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;
 - Plans; and
 - Importance of good communication.
- 8.38 Where continuous erroneous data is noted, or no data is recorded due to instrument malfunction or failure of the modem to connect to website for a continuous period of 24-hours, the monitoring equipment will be investigated at the site within 2 working days. If the problem cannot be solved on site, a replacement monitor or similar will be provided as soon as possible and within a reasonable timeframe to minimise potential risks upon the local area.

Certification of Analysers and Samplers for the Measurement of Ambient PM Concentrations

Reference methods

8.39 The reference methods for the determination of PM₁₀ concentrations are set out in EN12341:2014. The reference methods are based on gravimetric samplers which do not allow continuous online sampling. Defra and the Devolved Administrations have also proposed a number of monitoring technologies which are deemed to be equivalent to the reference methods and can be used in the national network (AURN) and these are listed as ‘Deemed equivalent by Defra’ on the UK-Air website <https://uk-air.defra.gov.uk>. These instruments can be used to determine compliance with the air quality objectives, Data Air Quality Indicators and health-based bandings.

Indicative methods

8.40 Many types of indicative instruments are also available. Many of these have been certified by the Environment Agency under its Monitoring emissions to air, land and water (MCERTS) scheme for indicative ambient particulate monitors (certified as iMCERTS). This includes light-scattering and some electro-chemical sensors. These instruments carry a slightly higher level of uncertainty than reference-equivalent analysers, and while they cannot be used for assessments of compliance by national bodies, they may provide sufficiently robust concentrations for the purposes of monitoring during construction.

8.41 There are also indicative instruments that are not iMCERTS, which are typically highly uncertain and are not suitable for monitoring during construction.

8.42 A list of iMCERTS instruments can be found at:

<http://www.csagroupuk.org/services/mcerts/mcerts-product-certification/mcerts-certified-products>

Reporting

8.43 Regular reports (quarterly) will be produced, setting out details of the monitoring results. The reports will be sent by email to the LPA if requested. The reports will present the monitoring locations, methods and results, any deviations, complaints received and will make comparison with air quality criteria agreed with the LPA, and other standards, where appropriate.

9 Dust Forms

9.1 Forms that may be used during the works are set out below. These may be replaced by equivalent forms produced by the Construction Contractor Site Manager where necessary. These will be completed as necessary and provided to the LPA if requested.

9.2 The Construction Contractor Site Manager will be responsible for ensuring all employees and contractors are suitably trained to use the forms and will be responsible for reviewing and signing off all forms, and their provision to the LPA where requested.

Dust Event Form	
Site	
Operator	
Date/Time	
Author	
Description of Event	
Activities taking place during time of event	
Dust mitigation techniques employed at the time of event	
Summary of weather conditions leading up to and during the event	
Details of corrective actions taken	
Notes	

Daily Inspection Checklist

Site		Inspected by	
Operator		Weather Conditions	
Date/Time			

Inspection Items	Implemented			Remarks
	Yes	No	N/A	
Machinery and dusty activities located away from receptors, as far as possible				
Solid screens or barriers surrounding dusty activities, at least as high as any stockpiles				
Green infrastructure suitably maintained				
Site fencing, barriers and scaffolding is clean				
Stockpiles covered				
All on-road vehicles comply with the London Low Emission Zone and Ultra Low Emission Zone				
No idling vehicles				
Cutting, grinding, and sawing equipment fitted with dust suppression techniques				
Adequate water supply available onsite				
Chutes, conveyors and skips all covered				
Cleaning equipment available on site				
No bonfires or burning of waste materials				
Bunded areas are kept damp/wet				
Local roads free of excess dirt and dust				
Vehicles leaving the site are all covered				
Do visible dust on nearby surfaces, such as cars, windowsills and street furniture				

Daily Inspection Notes

Operator Information		Weather Conditions	
Site		Weather Description	
Date		Temperature (°C)	
Operator		Wind Speed Description	
Site Activity		Wind Direction Description	
		Ground Conditions (e.g. dry, damp, wet)	

Location	Description of Operations	Time	Nature/Scale of Dust Observed (e.g. none, low, high)	Boundary crossed? (Y/N)	Action Required ? (Y/N)	Details of Action Taken
1						
2						
3						
4						
5						
6						
7						
8						
9						

Checked By (Print Name)	Signature	Date

Dust Complaint Form	
Site	
Operator	
Date/time	
Complaint reference	
Complainant Details	
Name	
Address	
Contact Phone Number	
Complaint Details	
Date/time	
Date/time and duration of dust event	
Location of dust	
Weather conditions	
Wind speed and direction	
Complainants' description of dust	
Intensity of dust	
Any other comments from the complainant	
For Completion by the Site Manager	
Any other complaints relating to the installation or location	
Any other relevant information	
Onsite activities that occurred during the dust event	
Operating condition during the dust event	
Remedial action taken	
Corrective action planned	
Corrective action completed	
Form completed by	
Signed	
Date	



Providing bespoke client focussed support

Cogan Environmental Consulting Limited is an independent environmental consultancy providing customer focused expert help to developers, planners, architects, industrial operators, farmers, public bodies, NGOs, lawyers and other businesses. Having supported over a thousand projects throughout our team’s careers, we are well placed to provide experienced air quality, odour and climate support for a diverse range of sectors.

Our company is a family business, putting value in reputation and legacy and fostering strong long-term relationships with clients. Our culture of integrity and accountability enables trust. As a small business we gain a deeper understanding of client’s specific context, enabling highly tailored and client-focused services, with flexible and adaptive solutions. With direct access to experienced consultants, clients are provided with high levels of care, pride, and dedication, as well as faster decision making and project timescales. With our niche expertise, clients benefit from our deep understanding and are provided with relevant and practical advice.

AIR QUALITY	ODOUR	CLIMATE
<ul style="list-style-type: none"> Air Quality Assessments for Planning and EIAs Feasibility Risk Assessments Air Quality Neutral Assessments Air Quality Positive Statements Air Quality Monitoring Surveys Planning Condition Support Ventilation Strategies Emission Mitigation Statements Damage Cost Assessments Air Quality Dust Management Plans (AQDMP) Dust Monitoring Expert Witness Services Technical Review Services LAQM Technical Support and Clean Air Zones Air Emissions Risk Assessments (Environmental Permitting) Infrastructure Assessments Indoor Air Quality Support (BREEAM, HQM, WELL, DREAM) COSHH Surveys (Air, Fumes, Dust, Bioaerosols) 	<ul style="list-style-type: none"> Odour Assessments for Planning Nuisance Complaint Support Commercial Kitchen Risk Assessments Environmental Permitting Support Odour Management and Control Public Sector Services Expert Witness Services Technical Review Services Qualitative Desktop Assessments Field Odour Surveys (‘Sniff-Tests’) Odour Dispersion Modelling Odour Monitoring / Sampling Kitchen Risk Assessments Council, Regulator and Consultee Liaison Odour Abatement Advice Odour Management Plans 	<ul style="list-style-type: none"> Greenhouse Gas Calculations and Assessments for Planning Greenhouse Gas ES Chapters Greenhouse Gas Monitoring Surveys H1 Calculations for Environmental Permitting UK ETS Advice Resilience and Adaptation ES Chapters Embodied Carbon Emission Assessments Climate Management Plans Expert Witness Services Technical Review Services Net Zero Carbon Assessments for Planning Net Zero Plans for Planning Business Carbon Footprints Business Net Zero Assessments Business Net Zero Plans Business Climate Risk Assessments Business Climate Adaptation Plans
GENERAL ENVIRONMENTAL		
<ul style="list-style-type: none"> Construction Environmental Management Plans (CEMP) Environmental Permitting Applications and Management Meteorological Monitoring Surveys and Data Provision 		

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