



Armstrong House
3 Bassett Avenue
Southampton
SO16 7DP

T: 02381 555 000

BEDHAMPTON PHASE 2
NOISE, VIBRATION AND DUST ASSESSMENT

Technical Report: R11014-5 Rev 1

Date: 23rd December 2025

For: Bargate Homes Ltd
The New Barn
Vicarage Farm House Business Park
Winchester Rd
Fairoak
SO50 7HD

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	Name	Position	Signature	Date
Prepared by	Kiel Edwards BSc MIOA	Senior Consultant		23/12/2025
Reviewed by	Neil McLeod BA (Hons) MIOA	Principal Consultant		23/12/2025
Approved by	Stephen Gosling BEng MIOA	Principal Consultant	S. Gosling	23/12/2025
For and on behalf of 24 Acoustics Ltd				

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1.0 INTRODUCTION AND SITE DESCRIPTION

- 1.1 24 Acoustics Ltd has been instructed by Bargate Homes Ltd to provide a technical report in relation to noise, vibration and dust to respond to planning condition 6 and associated comments from the Local Authority at the Bedhampton Phase 2 residential development.
- 1.2 The Bedhampton Phase 2 development comprises a mix of detached, semi-detached and terrace housing. Construction vehicles and general site access will be provided off Lower Road, to the east of the completed Phase 1 development.
- 1.3 The purpose of this report is to respond to comments from Havant Borough Council's Environmental Health Department and address the requirements of planning condition 6, reproduced below:

Condition 6

"No development shall take place until a site-specific Construction Environmental Management Plan has been submitted to and been approved in writing by the Local Planning Authority. The plan must demonstrate the adoption and use of the best practicable means to reduce the effects of noise, vibration, dust and site lighting. The approved CEMP shall be adhered to throughout the construction period. The CEMP should include, but not be limited to:

- *Programme for construction and carrying out of the works*
- *Procedures for maintaining good public relations including complaint management, public consultation and liaison*
- *Measures to minimise the noise (including vibration) generated by the construction process to include hours of work, proposed method of piling for foundations, the careful selection of plant and machinery and use of noise mitigation barrier(s)*
- *Construction traffic routes and their management and control*
- *Arrangements for deliveries associated with all construction works*
- *Loading and unloading of plant and materials*
- *Storage of plant and materials used in constructing the development*
- *Location of temporary site buildings, compounds, construction material, and plant storage areas*
- *Access and egress for plant and machinery*
- *Protection of pedestrian routes during construction*
- *Control measures for dust and other air-borne pollutants*
- *The parking and turning of vehicles of site operatives and visitors*

- *Procedures for emergency deviation of the agreed working hours*
- *Details of any floodlighting, including location, height, type and direction of light sources and intensity of illumination*
- *A scheme for recycling/disposing of waste resulting from the construction works*
- *The erection and maintenance of security hoarding including decorative displays and facilities for public viewing, where appropriate*
- *Wheel washing facilities*
- *Measures to prevent mud being deposited on the highway*
- *Provision for addressing any abnormal wear and tear to the highway"*

1.4 Piling will not be required and Bargate Homes Ltd has submitted a Construction Environmental Management Plan to the local authority, which confirms that foundations on the site are anticipated to be standard excavated footings.

1.5 Comments have been received from Havant Borough Council's Environmental Health Officer Craig Milligan. Concern was raised with regard to noise associated with the site compound and potential impacts from vehicle movements, material handling and staff activity incident at the nearest existing residential properties. Additionally, a site-specific dust assessment has been requested.

2.0 NOISE, VIBRATION AND DUST CRITERIA

Noise and Vibration - British Standard 5228

3.1 British Standard 5228 Parts 1 and 2 provide detailed advice on the assessment of noise and vibration from construction sites. Part 1 of the standard addresses noise and Part 2 addresses vibration.

3.2 BS 5228 Parts 1 and 2 make reference to a number of factors which are likely to affect the significance and acceptability of noise and vibration from construction sites. These are:

- i) Site location;
- ii) Existing ambient noise levels / existing ambient vibration levels;
- iii) Duration of site operations;
- iv) Hours of work;
- v) Attitude of the site operator;
- vi) Noise characteristics / vibration characteristics;

- vii) The effect of vibration on adjacent buildings.

BS 5228: Part 1 – Noise

- 3.3 Part 1 of BS 5228 provides guidance concerning methods of predicting and measuring noise from construction activities, and assessing the impact on those exposed to construction noise.

BS 5228: Part 2 - Vibration

- 3.4 Part 2 of BS 5228 provides guidance on the control of vibration from construction activities and assessing its impact on those exposed to it.
- 3.5 The standard does not recommend absolute criteria for vibration, but advises that the peak particle velocity (PPV) descriptor should be used as an indicator of both human response and effects on buildings. Table 1 below is reproduced from BS 5228 and provides guidance on the effects of vibration levels in terms of human response.

Vibration level (PPV)	Effect
0.14 mm/s	Vibration might just be perceptible in the most sensitive situations for most vibration frequencies associated with construction. At lower frequencies, people are less sensitive to vibration
0.30 mm/s	Vibration might just be perceptible in residential environments
1.00 mm/s	It is likely that vibration of this level in residential environments will cause complaint, but can be tolerated if prior warning and explanation has been given to residents

Table 1 - Effects of Vibration Levels – Human Response

- 3.6 BS 5228 also advises that the vibration levels at which cosmetic damage could occur are higher than those stated in Table 1.

Dust

- 3.7 Airborne particles (also referred to as particulate matter) include a range of organic and inorganic substances with diameters ranging from less than ten nanometers (nm) to greater than 100 microns (µm).

- 3.8 Construction activities can result in temporary effects through the release of fugitive dust. Particles of most concern to human health generally exist within the 0.1 μm to 10 μm range. PM₁₀ and PM_{2.5} – particles with a mean aerodynamic diameter less than ten microns and 2.5 microns respectively – are most commonly monitored. Larger dust particles fall out of the atmosphere quickly after initial release and therefore tend to be deposited in close proximity to the source of emission.
- 3.9 Although dust is unlikely to cause long-term or widespread changes to local air quality, its deposition on property can cause 'soiling' and discolouration. This may result in complaints of nuisance through amenity loss, deposition on windows or perceived damage caused, which is usually temporary.
- 3.10 Small particles of dust (PM₁₀ and smaller) represent only a low proportion of total dust released. As this type of particle is at the smaller end of the size range, the particles can remain suspended in the atmosphere for a longer period of time than the larger dust particles and can therefore be transported by wind over a wider area.
- 3.11 The frequency and duration of dust effects are important factors in the potential for nuisance to be caused to nearby residents, with a higher degree of tolerance likely to be expected if the activities generating dust are infrequent or over a short duration of time.
- 3.12 Guidance provided by the Institute of Air Quality Management (IAQM document 'Guidance on the assessment of dust from demolition and construction' (January 2024, Version 2.2)) suggests that the potential effects from construction activities that generate dust are generally limited to within 350 metres of the construction site boundary or activity. This distance is largely dependent on the prevailing wind conditions, rainfall and the presence of natural screening by, for example, existing physical screening such as boundary walls or buildings on a site. The amount of dust that will be deposited off site depends on the nature of the construction activity being undertaken and the amount of mitigation being applied to minimise dust generation at source.

Summary of Criteria for Noise, Vibration and Dust

- 3.13 Based on the above review of relevant standards and guidance, the following criteria shall be used for the assessment of construction impacts at the nearest sensitive properties:
- Noise – A daytime Alert Level for construction noise of 70 dB L_{Aeq}, 10 hr;

- Dust – Assessment undertaken in line with IAQM 'Guidance on the assessment of dust from demolition and construction';
- Vibration – Assessment of the proposed works in line with the requirements of BS5228.

3.0 PROPOSED WORKS

3.1 The proposals include the construction of 43 houses, associated access paths and external areas. Construction access will be provided to the east of the site off Lower Road with the track extending to the eastern and southern boundaries of the adjacent phase 1 development (see Figure 1). The site conditions require the main site compound to be in the south east corner of the site, as described in Figure 2.

3.2 The scope of this assessment is to consider the impacts of noise, vibration and dust from works associated with the development on nearby receptor locations.

Hours of Work

3.3 The construction work will take place during the following hours:

- Monday to Friday 08:00 hours to 18:00 hours
- Saturdays 08:00 hours to 13:00 hours
- Sundays and Bank holidays No works

3.4 No scheduled work will take place outside these hours unless otherwise agreed with the local authority.

3.5 An outline sequence of site works has been provided by Bargate Homes Ltd, which describes a construction programme lasting approximately 114 weeks.

Receptor Locations

3.6 Table 2 identifies the key residential receptor locations from the construction area.

Receptor	Location	Distance to Centre of Site
1	Rear of properties on Cotton Way and Lower Road	90m
2	Properties on Lower Road	160m

Table 2 - Construction Noise Nearest Receptor Locations

- 3.7 Specific receptor locations closest to the proposed access route and site compound are described below.

Receptor	Location	Distance to Construction Access Route	Distance to Site Compound
3	1 to 7 Cotton Way	12m	250m
4	41 Cotton Way	55m	65m

Table 3 - Access Route and Site Compound Nearest Receptor Locations

- 3.8 The site and receptor locations are identified in Figure 1.

4.0 NOISE VIBRATION AND DUST MITIGATION

- 4.1 The following information is provided to demonstrate how noise, vibration and dust will be controlled during the works Bedhampton Phase 2, in order to minimise the impact on nearby properties.
- 4.2 Best Practicable Means (BPM), as outlined in Section 72 of the Control of Pollution Act 1974 will be employed in order to minimise noise, vibration and dust levels throughout the period of the works.
- 4.3 The nearest properties of Phase 1 have a 1.8m high solid timber fence to the rear gardens, which will provide acoustic screening to ground floor rooms facing the development site.
- 4.4 The following sections confirm mitigation measures that shall be employed at this site, in order to minimise the impacts of noise, vibration and dust.

Mitigation Measures - General

- Design and use of localised site hoardings and screens, where practicable and necessary, to provide screening at the earliest opportunity;
- Careful selection of plant, construction methods and programming. Only plant conforming with relevant national or international standards, directives and recommendations on noise and vibration emissions will be used;
- Responsible site management will include consideration of the impact of noise, vibration and dust on neighbours;
- Regular contact with neighbours to ensure that works are not causing unacceptable impact on their environment and, wherever possible, schedule work activities to suit any specific quiet periods that neighbours may require;

- Site personnel to be instructed on BPM to reduce noise and vibration as part of their induction, with training as required prior to specific work activities;
- When plant is not being used, it shall be shut down and not left to idle;
- Construction vehicles and deliveries will be on a time slot basis;
- There will be no vehicles waiting on the public highway with their engines running.

Mitigation Measures - Noise

- External plant to be housed within site hoarding, or other screening where appropriate;
- Plant to be located, as far as is reasonably practicable, away from adjacent occupied buildings or as close as possible to noise barriers or site hoardings where these are located between the plant and the buildings;
- Static and semi-static plant/equipment will be fitted with suitable enclosures where practicable;
- Electrical equipment will be used, where possible, rather than diesel or petrol powered equipment;
- Where practicable, to phase the works to ensure that the noisier activities are not carried out concurrently (within the same area);
- Careful selection of plant, construction methods and programming. Only plant conforming with relevant national or international standards, directives and recommendations on noise emissions will be used;
- Construction plant will be located, as far as is reasonably practicable, away from adjacent occupied buildings or as close as possible to noise barriers or site hoardings where these are located between the plant and the buildings;
- Responsible site management will include consideration of the impact of noise on neighbours;
- Regular contact with neighbours (e.g. letter drops) to ensure that works are not causing unacceptable impact on their environment and, wherever possible, schedule work activities to suit any specific quiet periods that neighbours may require;
- Site personnel to be instructed on BPM to reduce noise as part of their induction, with training as required prior to specific work activities;
- When plant is not being used, it shall be shut down and not left to idle;
- There will be no vehicles waiting on the public highway with their engines running;
- Vehicle access and egress from the site will be managed by qualified banksmen;

Mitigation Measures – Vibration

- Use of light, hand-held breaking equipment, rather than heavy breakers;

- Use of heavy percussive tools will be avoided where possible, in order to minimise vibration;

Mitigation Measures - Dust

- Loose material will be removed from site as soon as possible;
- The site will be well-maintained to minimise dust emissions, e.g. regular cleaning of hoardings using wet methods, dealing with spillages correctly;
- All waste will be dealt with correctly using best practice procedures;
- Water suppression will be used where necessary to damp down dust;
- Materials will be wetted down and wet brushing techniques will be used for cleaning;
- Pre-fabricated materials and modules should be used, where possible, to minimise the required extent of cutting, grinding and sawing undertaken on site;
- Cement, sand, fine aggregates and other fine powders will be sealed after use and if necessary stored in enclosed containers or silos;
- Dust-generating activities and machinery to be located away from residential properties, where possible;
- Skips to be covered and enclosed when not in use.

Construction Traffic Management

4.5 The following noise, vibration and dust mitigation measures in relation to site traffic, removal of waste, programme and neighbour consultation, will be utilised during the construction:

- Traffic marshal attending at the site entrance during site operating hours to control ingress and egress of all vehicles;
- Signage to be installed at the bottom of Brookside Road providing telephone number and instructions for HGV delivery vehicles in order to avoid the build up of traffic, summarised below;
 - HGV driver to wait and call site contact number;
 - Traffic marshal to coordinate traffic in preparation for HGV arrival;
 - Traffic marshal to inform HGV driver to proceed to site.
- Delivery vehicles restricted to rigid types where practicable;
- Site traffic restricted to 5 mph for all delivery vehicles;
- Speed limit signage and access signage positioned to minimise disruption;
- Adequate parking will be provided on-site to ensure contractors do not need to park on public roads;

- The community liaison officer will be contacted and neighbouring residents will be consulted via letter 2 weeks prior to any significant works involving construction traffic;
- Deliveries will only operate between the hours of 08:00 – 17:00 Monday to Friday and 09:00 to 13:00 Saturday;
- All deliveries and collections will be scheduled in advance, with the driver phoning ahead.

5.0 NOISE AND VIBRATION ASSESSMENT

Construction Noise

- 5.1 The level of noise generated by the construction activities will depend upon a range of factors, which include plant to be used, distance between source and receptor and operational time for each item of equipment during a typical day. Reasonable assumptions have been made regarding construction operations and locations, with input from Bargate Homes Ltd.
- 5.2 Source noise data for construction site activity has been determined with reference to the database contained in BS 5228, for the following plant:
- i) Wheeled Loaders
 - ii) Mobile crane/telehandler
 - iii) Concrete pump
 - iv) Wheeled excavator
 - v) Dump truck
 - vi) Handheld cordless nail gun
 - vii) Hand held circular saw
- 5.3 Construction noise levels will vary depending on the location of the works relative to the receiver location. Calculations have been undertaken, in line with the guidance of BS 5228 2009 (part 1), to determine the likely level of site related noise at the nearest receptor locations during work hours.
- 5.4 The calculations assume that BPM will be employed with mitigation measures implemented as described above and include corrections for distance and percentage on-time for each plant item. It is assumed that all plant will operate for approximately 50 percent of the time, aside from concrete pumps and mobile cranes/telehandlers, which are assumed to operate for 25 percent of the time. Resultant noise levels for each receptor location are summarised in Table 4.

Predicted Noise Levels from Works to Receptors, dB L_{Aeq}, 10 hour	
R1	R2
62 to 64	57 to 59

Table 4 - Predicted Construction Noise Levels

- 5.5 The predicted levels indicate that construction noise at all receptors will be below the BS 5228 threshold of significant effect (70 dB L_{Aeq}, 10 hour). Therefore, with effective management, noise from construction works would be controlled to acceptable levels at all receptors, in line with BS 5228.

Construction Vehicle and Compound Vehicle Noise

- 5.6 Site access for construction vehicles will be from Lower Road, as shown in Figure 1.
- 5.7 The number and frequency of vehicles on the site will fluctuate based on the build programme and date specific requirements. Worst case outline vehicle movements for the construction phase have been provided by Bargate Homes Ltd and are reproduced below.

Vehicle Type	Daily Vehicle Movements (combined arrivals/departures)
Cars, Vans, LGV	80
HGV	10

Table 5 - Outline Daily Vehicle Movements

- 5.8 Based on the above, a worse case hourly car/van/LGV movement level of 40 has been used in the assessment (i.e. all vehicles arriving/departing at the start and end of the working day). HGV deliveries will be coordinated via a booking system and will occur no more than once per hour.
- 5.9 Calculations have been undertaken, based on the above vehicle movements, to determine the likely level of construction vehicle noise incident at the nearest residential properties to the access route and site compound. Source noise levels have been taken from 24 Acoustics' library database, providing an HGV noise level of 68 dB L_{Aeq T} at 5m and a slow moving car/van noise level of 58 dB L_{Aeq T} at 4m.
- 5.10 Calculations include corrections for distance to the nearest receptor locations and time on corrections to account for the temporary nature of vehicle passbys. The cumulative noise level from all vehicle movements during a peak hour are shown in Table 6.

Receptor	Cumulative HGV, Car, Van and LGV Noise Levels dB L _{Aeq} , 1 hour
3	40
4	30

Table 6 - Predicted Construction Vehicle Noise Levels, Peak Hour

- 5.11 The predicted vehicle noise levels are low and hence acceptable. Additionally, with reference to 24 Acoustics' noise assessment submitted at planning (R11014-1 Rev 1), predicted noise levels from construction vehicle movements are significantly below the measured average ambient noise levels from transportation sources at the nearest receptor locations (properties on Cotton Way) which are in the order of 62 to 64 dB L_{Aeq} 1 hour.

Construction Vibration

- 5.12 A review of the proposed works has been undertaken with regard to vibration levels at the nearest residential receptor locations. Vibration levels will be minimised as the methods used (summarised in the previous section) do not involve piling or the use of heavy percussive tools. Subject to good site management and the vibration mitigation measured outlined in section 4, sustained vibration arising from site activities will be lower than that likely to cause disturbance to nearby residents and significantly lower than the risk of the onset of cosmetic structural damage arising.

6.0 DUST RISK ASSESSMENT

- 6.1 The following assessment has been undertaken using the guidance given in the IAQM document 'Guidance on the assessment of dust from demolition and construction' (January 2024, Version 2.2).
- 6.2 The main steps of the assessment are outlined as follows:
- Screen the need for a detailed assessment;
 - Assess the risk of dust impacts during the different construction phases;
 - Define the potential dust emission magnitude;
 - Define the sensitivity of the area;
 - Define the risk of impacts.
- 6.3 The guidance states that a detailed assessment is required where there is a 'human receptor' within 250m of the site boundary and/or 50m of the routes used by construction vehicles on the public highway (up to 250m from the site entrance).

- 6.4 An annual mean PM₁₀ concentration of less than 13 µg/m³ has been assumed for the purposes of this assessment, based on DEFRA background mapping data.
- 6.5 The dust emission magnitude is based on the scale of the works and is classed as small, medium or large. The dust emission magnitude for each phase of the works has been determined and is presented in Table 7 below. No demolition activity is proposed therefore demolition has been excluded from this assessment.

Activity Phase	Dust Emission Magnitude
Earthworks	Small
Construction	Medium
Trackout	Small

Table 7 - Dust Emission Magnitude for Each Phase

- 6.6 There are estimated to be less than 100 receptors of 'high sensitivity' within 50m of the site. No ecological receptors have been identified within 50m of the site, hence the ecological impact of dust is considered negligible.
- 6.7 The sensitivity of the area should be defined in terms of the sensitivity of people to dust soiling effects and the effects on human health. The sensitivity of the area for each phase of the works has been determined and is presented in Table 8 below.

Activity Phase	Sensitivity – Dust Soiling	Sensitivity – Human Health
Earthworks	Medium	Low
Construction	Medium	Low
Trackout	High	Low

Table 8 - Sensitivity of the Area for Each Phase – Dust Soiling and Human Health

- 6.8 As shown in Table 7, the sensitivity of the area to dust soiling effects has been defined as high for all phases. The sensitivity of the area to human health impacts has been determined as low for all phases.
- 6.9 The summary dust risk assessment, derived from the dust emission magnitude and sensitivity of the area is presented in Table 9 below.

Activity Phase	Risk Summary Dust Soiling	Risk Summary Human Health
Earthworks	Low Risk	Negligible Risk
Construction	Medium Risk	Low Risk
Trackout	Low Risk	Negligible Risk

Table 9 - Summary Dust Risk Assessment

- 6.10 As shown in Table 8, the risk of dust impact has been identified as negligible or low for both dust soiling and human health effects, except for during the construction phase where the risk of dust soiling impacts is defined as medium. The impact of dust soiling during construction can be reduced to low through implementing the site-specific mitigation measures set out in the following section.

7.0 DUST MITIGATION STRATEGY

- 7.1 With reference to the proposed dust mitigation measures outlined in Bargate Homes' Construction Environmental Management Plan, a site-specific dust assessment in line with the IAQM guidance document (2024) has been undertaken. A summary of the key dust suppression/mitigation measures to be employed at the site are summarised below:

- Ensure ongoing community engagement before dust producing works commence (i.e. letter drop);
- Contact information for person(s) accountable for air quality and dust management available at the site entrance (i.e. contact information signage);
- Company head office/regional office contact information available on request;
- Any dust and air quality complaints to be recorded, identifying the cause, remediation measures taken and date/time of complaint and incident. Records to be kept on file for the lifetime of the construction phase and available to the Local Authority on request;
- Record any exceptional incidents that cause dust and/or air emissions either on or off-site with a record of the actions taken to resolve;
- The site management team will visually monitor levels of dust on and off site daily with a record kept of inspection results, to be made available to the Local Authority on request. During increased periods of site activity, inspection frequency to be increased (e.g. twice daily).
- Site layout planned to keep potentially dust producing stockpiles as far from existing receptors as possible;
- Where possible, screens or enclosures will be utilised where there is increased potential for dust production over extended periods;
- Site run off will be monitored to ensure water/mud remains within the site/SUDS and minimises effects on existing residential properties;
- Wet methods utilised for the cleaning of site fencing/barriers/scaffolding;
- Potential dust producing materials stored on-site for prolonged periods provided with suitable covering to prevent dust transportation/deposition;

- Signposted on-site speed limits of 15mph for surfaced roads and 10mph on unsurfaced roads;
- Water sprays to be utilised for potential high dust producing activities in relevant conditions;
- Minimisation of drop heights from loading shovels, hoppers and other loading or handling equipment;
- There will be no burning of waste materials on-site;
- Fine powder materials (e.g. cement) delivered in suitable sealed packaging and stored with dust control measures in place where necessary (i.e. dust coverings) to prevent dust transportation/deposition;
- Water assisted sweepers utilised on site road and the local road network where necessary;
- Dry sweeping of large areas to be avoided where feasible;
- Haulage vehicle entering/leaving site to be covered where required to minimise dust deposition at existing residential properties;
- Inspect haul road conditions regularly and record any repair works required, particularly to unsurfaced roads;
- There will be no storage of sand within the site compound and mortar will be delivered directly into silos and extracted for wet use;
- Concrete will be delivered wet to avoid dust production associated with dry concrete mixing operations;
- Emergency dust suppression system available at all times in the form of water bowsers with spray valves;
- On site vehicle hosing available at all times to reduce dust/mud trackout.

7.2 The above measures are included in the full dust risk assessment, as outlined in the following sections.

Dust Risk Assessment (IAQM)

7.3 In accordance with Section 8.2 of the IAQM guidance document (2024), the results of the dust risk assessment have been used to determine site-specific mitigation measures as shown below.

7.4 The following key has been used:

H = Highly Recommended

D = Desirable

N = Not required

- 7.5 Where mitigation measures are either highly recommended or desirable, these are identified in the following sections.

Mitigation – General Measures

- 7.6 Based on the results of the dust risk assessment, the general measures applicable to a medium risk site have been identified as shown below.

Mitigation for all sites: Communications

Mitigation measure	Low Risk	Medium Risk	High Risk
1. Develop and implement a stakeholder communications plan that includes community engagement before work commences on site.	N	H	H
2. Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environment manager/engineer or the site manager.	H	H	H
3. Display the head or regional office contact information.	H	H	H

Mitigation Measure	Low Risk	Medium Risk	High Risk
4. Develop and implement a Dust Management Plan (DMP), which may include measures to control other emissions, approved by the Local Authority. The level of detail will depend on the risk, and should include as a minimum the highly recommended measures in this document. The desirable measures should be included as appropriate for the site. In London additional measures may be required to ensure compliance with the Mayor of London's guidance. The DMP may include monitoring of dust deposition, dust flux, realtime PM ₁₀ continuous monitoring and/or visual inspections.	D	H	H
Site Management			
5. Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.	H	H	H
6. Make the complaints log available to the local authority when asked.	H	H	H
7. Record any exceptional incidents that cause dust and/or air emissions, either on- or off-site, and the action taken to resolve the situation in the log book.	H	H	H
8. Hold regular liaison meetings with other high risk construction sites within 250 m of the site boundary, to ensure plans are co-ordinated 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 routes.	N	N	H
Monitoring			
9. Undertake daily on-site and off-site inspection, where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the local authority when asked. This should 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.	D	D	H
10. Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the local authority when asked.	H	H	H
11. Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.	H	H	H
12. Agree dust deposition, dust flux, or real-time PM ₁₀ continuous monitoring locations with the Local Authority. Where possible commence baseline monitoring at least three months before work commences on site or, if it a large site, before work on a phase commences. Further guidance is provided by IAQM on monitoring during demolition, earthworks and construction.	H	H	H
Preparing and maintaining the site			
13. Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.	H	H	H
14. Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.	H	H	H
15. Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period.	D	H	H
16. Avoid site runoff of water or mud.	H	H	H
17. Keep site fencing, barriers and scaffolding clean using wet methods.	D	H	H

Mitigation Measure	Low Risk	Medium Risk	High Risk
18. Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover as described below.	D	H	H
19. Cover, seed or fence stockpiles to prevent wind whipping.	D	H	H
Operating vehicle/machinery and sustainable travel			
20. Ensure all on-road vehicles comply with the requirements of the London Low Emission Zone and the London NRMM standards, where applicable.	H	H	H
21. Ensure all vehicles switch off engines when stationary - no idling vehicles.	H	H	H
22. Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable.	H	H	H
23. Impose and signpost a maximum-speed-limit of 15 mph on surfaced and 10 mph on unsurfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the local authority, where appropriate).	D	D	H
24. Produce a Construction Logistics Plan to manage the sustainable delivery of goods and materials.	N	N	H
25. Implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing).	N	D	H
Operations			
26. Only use 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.	H	H	H
27. Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate	H	H	H
28. Use enclosed chutes and conveyors and covered skips.	H	H	H
29. Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.	H	H	H
30. Ensure 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.	D	H	H
Waste management			
31. Avoid bonfires and burning of waste materials.	H	H	H

Mitigation for Earthworks Phase

- 7.7 As shown in the dust risk assessment, the site will be low risk during the earthworks phase, therefore none of the following mitigation measures specific to earthworks are required.

Measures specific to earthworks

Mitigation Measure	Low Risk	Medium Risk	High Risk
36. Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable.	N	D	H
37. Use Hessian, mulches or trackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable.	N	D	H
38. Only remove the cover in small areas during work and not all at once.	N	D	H

Mitigation for Construction Phase

- 7.8 The following mitigation measures specific to the construction phase have been identified, based on the medium risk category from the dust risk assessment.

Measures specific to construction

Mitigation Measure	Low Risk	Medium Risk	High Risk
39. Avoid scabbling (roughening of concrete surfaces) if possible.	D	D	H
40. Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.	D	H	H
41. Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.	N	D	H
42. For smaller supplies of fine power materials ensure bags are sealed after use and stored appropriately to prevent dust.	N	D	D

Mitigation for Trackout Phase

- 7.9 The following mitigation measures specific to the trackout phase have been identified, based on the low risk category from the dust risk assessment.

Measures specific to trackout

Mitigation Measure	Low Risk	Medium Risk	High Risk
43. Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use.	D	H	H
44. Avoid dry sweeping of large areas.	D	H	H
45. Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.	D	H	H
46. Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable.	N	H	H
47. Record all inspections of haul routes and any subsequent action in a site log book.	D	H	H
48. Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned.	N	H	H
49. Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).	D	H	H
50. Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits.	N	H	H
51. Access gates to be located at least 10 m from receptors where possible.	N	H	H

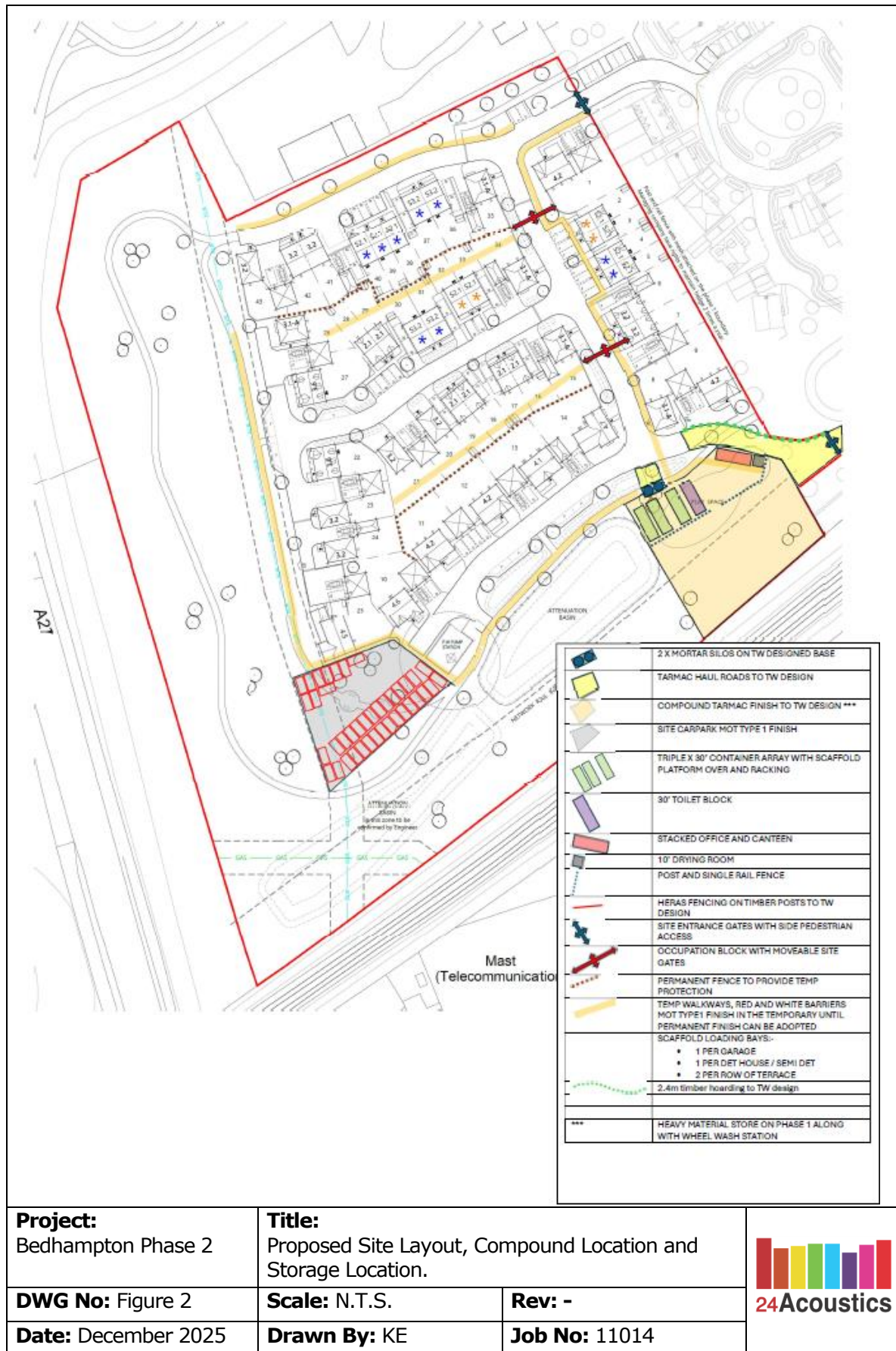
9.0 CONCLUSIONS

- 9.1 24 Acoustics Ltd has been instructed by Bargate Homes Ltd to provide a technical report in relation to noise, vibration and dust for the residential development Bedhampton Phase 2.
- 9.2 Appropriate criteria have been determined for the assessment of noise, vibration and dust impacts at the nearest sensitive properties, based on relevant guidance documents and British Standards.
- 9.3 Best Practicable Means (BPM) will be employed at the site and mitigation measures have been identified, in order to minimise the impacts of noise, vibration and dust.
- 9.4 Calculations demonstrate that it would be feasible to achieve suitable noise levels from construction and site vehicles at the nearest existing residential properties.
- 9.5 The preliminary dust risk assessment has been undertaken outlines suitable dust mitigation measures to be adopted at the development.



- 1 Receptor Location 1 (41 to 53 (odds) Cotton Way)
- 2 Receptor Location 2 (Properties on Lower Road)
- 3 Receptor Location 3 (1 to 7 (odds) Cotton Way)
- 4 Receptor Location 4 (41 Cotton Way)
- Site Access Road
- Site Location

Project: Bedhampton Phase 2	Title: Site, Access Route and Receptor Locations		
DWG No: Figure 1	Scale: N.T.S.	Rev: -	
Date: December 2025	Drawn By: KE	Job No: 11014	



Project:
Bedhampton Phase 2

Title:
Proposed Site Layout, Compound Location and Storage Location.

DWG No: Figure 2

Scale: N.T.S.

Rev: -

Date: December 2025

Drawn By: KE

Job No: 11014