

Construction Noise and Vibration Management Plan
County Flats
Aberavon

1-Objective

This management plan defines the measures to control and limit noise emissions and vibration levels, at the residential properties and other sensitive receptors in the vicinity of the Project.

Hale Construction Ltd will discuss and agree with the Local Authority whether to seek their formal consent in accordance with Section 61 of Control of Pollution Act 1974 to their proposed methods of work and to the steps we propose to minimise noise. Notwithstanding this Hales will discuss in detail and agree the proposed noise and vibration control measures with the Local Authority Refurbish the existing 72 flats externally to provide energy efficient homes. Construct 55 new homes, using modern methods of constructions ("MMC"), to provide energy efficient new homes.

2-Project Directory

CLIENT:	Tai Tarian Ty Gwyn Brunel Way Baglan Energy Park Neath SA11 2FP
DESIGNER Architect:	Dennis Hellyar Architects Unit 15 - BSC Hood Road Innovation Quarter Barry Waterfront Vale of Glamorgan. CF62 5QN e: dh@dennishellyar-architects.com t: 01446 500720
DESIGNER Structural Engineer:	Quad Consult Limited Columbus House Village Way Greenmeadow Springs Business Park Cardiff CF15 7NE T: 029 2077 9644
Principal Contractor	Hale Construction Ltd Unit 2 Milland Rd, Neath SA11 1NJ 01639 622189

3-Site Working Hours

The site working hours for the week are 8.00 am to 16.45pm Monday to Friday. Occasional Saturdays is 7.45am – 1.00pm if agreed upon,

4-Principal Contractor Details

Hale Construction Ltd

Unit 2

Milland Road

Neath SA11 1NJ

Phone Number 01639 622189

Contracts Manager – K O Mahony-07989740579

Site Manager – P Day-07970529723

5-Scope of work,

Refurbish the existing 72 flats externally to provide energy efficient homes. Construct 55 new homes, using modern methods of constructions (“MMC”), to provide energy efficient new homes and the demolition of single storey out buildings and timber flat roofs and the demolition of external boundary wall and grub up foundations and take away

6-General Requirements – Noise

Best Practicable Means (BPM) of noise control will be applied during construction works to minimise noise (including vibration) at neighbouring residential properties and other sensitive receptors arising from construction activities.

The general principles of noise management are given below:

Control at source:

- Equipment – noise emissions limits for equipment brought to site.
- Equipment – method of directly controlling noise e.g., by retrofitting controls to plant and machinery.
- Equipment - indirect method of controlling noise e.g., acoustic screens.
- Equipment - indirect method of controlling noise e.g., benefits and practicality of using alternative construction methodology to achieve the objective e.g., vibratory piling techniques or hydro demolition as opposed to more conventional but noisier techniques; selection of quieter tools/machines; application of quieter processes.

Control across site by:

- Administrative and legislative control,
- Control of working hours,
- Control of delivery areas and times,
- Careful choice of compound location,
- Physically screening site,

- Control of noise via Contract specification of limits,
- Noise Monitoring, to check compliance with noise level limits, cessation of works until alternative method is found.
- Many of the activities which generate noise can be mitigated to some degree by careful operation of machinery and use of tools. This may best be addressed by toolbox talks and site inductions.

7-Best Practicable Means

BPM are defined in Section 72 of the Control of Pollution Act 1974 and Section 79 of the Environmental Protection Act 1990 as those measures which are:

“reasonably practicable having regard among other things to local conditions and circumstances, to the current state of technical knowledge and to financial implications”.

The Environment Agency will require its contractors to consider mitigation in the following order:

BPM as identified above, including:

Noise and vibration control at source: for example, the selection of quiet and low vibration equipment, review of construction methodology to consider quieter methods, location of equipment on site, control of working hours, the provision of acoustic enclosures and the use of less intrusive audible warnings such as broadband vehicle reversing alarms.

Screening: for example, local screening of equipment or perimeter hoarding; and

Where, despite the implementation of BPM, the noise exposure exceeds the criteria defined in this Construction Noise and Vibration Management Plan, or where there are residents who would still be affected (e.g., shift workers, young mothers, the elderly, sick or disabled residents) These residents will be identified prior to works taking place.

The recommendations of BS5228: 2009+A1:2014 ‘Code of practice for Noise and Vibration Control on Construction and Open Sites’, will be implemented, together with the specific requirements of this management plan.

8-Consultation

Consultation will be carried out with Hales HS&E Manager during and after preparation of the Environmental Statement regarding the management of noise and vibration during construction of the Project.

The Hale recognises that construction operations by their nature are noisy, however the impact on those living and working in the vicinity must be minimised as far as is reasonably practicable.

Hales requires the following in terms of regarding noise and vibration management:

The maintenance of good community relations is vital. Experience shows that construction noise has the potential to cause disturbance but can be tolerated if warning and explanation has been given to residents. Advice regarding the nature of construction works the duration of the works and mitigation measures to be implemented can help to reduce people’s reaction to noise. Hales will consult residents/communities regarding works and to give them details of a responsible appointed person on site who will be able to deal with queries.

Construction working hours should be carefully managed. All works should take place between normal working hours 07.45pm and 16.45am, Monday to Friday

It will be requested that all works should employ best practicable means to control noise levels as far as is reasonably possible.

A scheme of noise and vibration monitoring should be undertaken and assessed periodically during construction. Monitoring would aim to demonstrate that noise levels are being sufficiently controlled to protect residents from adverse noise and vibration levels. [Details of such monitoring are outlined in Appendix C]. The Noise and Vibration Monitoring Plan is to be agreed with LA prior to commencement to include full term continuous monitoring at the nearest property to the County Flats Project

A pre-commencement external structural assessment of the properties closest to the construction areas where vibration is likely will be required.

Details of a 24/7 Complaints Procedure and Contacts to be agreed,

9-Noise and Vibration Control Measures

In addition to specific requirements of the Local Authority, the Contractor will be required to adopt the following more specific measures:

Without prejudice to the other requirements of this section, Hales will comply with the recommendations set out in BS5228:2009 and with the following requirements:

- Vehicles and mechanical plant will be maintained in a good and effective working order and operated in a manner to minimise noise emissions. Hales will ensure that all plant complies with the relevant statutory requirements.
- HGV and site vehicles will be equipped with broadband, non-tonal reversing alarms.
- Compressor, generator, and engine compartment doors will be kept closed and plant turned off when not in use.
- All pneumatic tools will be fitted with silencers/mufflers.
- Care would be taken when unloading vehicles to avoid un-necessary noise.
- The use of particularly noise plant will be limited, i.e., avoiding use of particularly noisy plant early in the morning.
- Restrict the number of plant items in use at any one time.
- Plant maintenance operations will be undertaken at distance from noise-sensitive receptors.
- Reduce the speed of vehicle movements.
- Ensure that operations are designed to be undertaken with any directional noise emissions pointing away from noise-sensitive receptors.
- When replacing older plant, ensure that the quietest plant available is considered.
- Drop heights will be minimised when loading vehicles with rubble.
- Vehicles should be prohibited from waiting within the site with their engines running or alternatively, located in waiting areas away from sensitive receptors.
- Local hoarding, screens or barriers should be erected to shield particularly noisy activities.

Temporary noise screens will be used to reduce noise from particularly noisy activities and the height of perimeter hoarding will be extended where this would assist in reducing noise disturbance at sensitive receptors; and

Hours of operation should be strictly enforced and any deviations other than those previously identified will be with the consent of the local authority.

COMPLAINTS PROCEDURE

Observe good neighbour procedures and dealing with any complaints in a speedy and sympathetic manner.

On receiving a noise related complaint inform the Site Manager who will be responsible for administering Complaints Procedure. A noise assessment will be undertaken to investigate source and implement noise attenuation/control measures to ensure noise levels are not exceeding agreed trigger levels.

10-Notifications

Occupiers of adjacent properties will be informed by the Hales up to 2 weeks in advance of the works taking place, including the duration and likely noise and vibration effects. In the case of work required in response to an emergency, the Environment Agency and residents will be advised as soon as reasonably practicable that emergency work is taking place. Potentially affected residents will also be notified of the helpline number of Hales Construction Ltd

11-Noise and vibration monitoring

A regular programme of noise and vibration monitoring shall be implemented as a minimum in accordance with Appendix C of this document.

The Contractor will submit the proposed method, the frequency, and the location of monitoring site to the Planning Authority for agreement prior to commencing works. Proposed monitoring requirements and locations are detailed in Appendix C. Noise baseline levels will be agreed prior to commencement of construction.

12-Mitigation of Temporary Effects

General advice on best practicable means as outlined in Section 1 of this document, for those construction activities which have shown to have the highest potential to give rise to temporary significant adverse effects, the mitigation measures detailed below will be required. Appendix A shows the site works layout plan.

13-Noise Mitigation

Construction Traffic

The Contractor will incorporate the following measures into the scheme to avoid noise related impacts from construction traffic:

- Vehicles will not wait or queue up with engines running on the site or the public highway.
- Vehicles will be properly maintained to comply with noise emissions standards.
- Deliveries will be restricted to be within working hours of the site; and

- Design and routing of access routes will minimise vehicle noise and the need to perform reversing manoeuvres.

14-Vibration Mitigation

2.3 Noise Insulation

Where, despite the mitigation measures applied and consents from the local authority, noise levels at some properties exceed the scheduled periods defined below, a scheme for the installation of noise insulation or the reasonable costs thereof, or a scheme to facilitate temporary rehousing of occupants, as appropriate, will be implemented by the developer or promoter. The scheme will include provision for the notification of affected parties.

Noise insulation or the reasonable costs thereof will be offered by the developer or promoter to owners, where applied for by owners or occupiers, subject to meeting the other requirements of the proposed scheme, if either of the following apply to property lawfully occupied as a permanent dwelling:

where the predicted noise level exceeds the scheduled noise, or where the total noise (pre-construction ambient plus construction noise) is 5 dB above the existing airborne noise level for the corresponding times of day, whichever is the higher; and for a period of ten or more days of working in any fifteen consecutive days or for a total of days exceeding 40 in any 6-month period.

3 Summary

This report gives details of a noise and vibration construction management plan to be implemented by the appointed contractor prior to and during the construction of the Project – County Flats,

The location of noise sensitive receptors is identified where there is the potential for disturbance from either noise and or vibration during construction.

The principles of noise management are outlined for which the Contractor shall comply with based on the recommendations set out in BS5228:2009.

Best Practicable Means (BPM) of noise control are outlined and will be applied by the contractor during construction works to minimise noise (including vibration) at neighbouring residential properties and other sensitive receptors arising from construction activities.

Specific mitigation measures should be implemented by the contractor during those construction activities identified as having the highest potential to cause disturbance from either noise and or vibration. If noise pollution continually exists hales will employ an acoustics engineer for further monitoring and results

Noise and vibration monitoring locations are given in Appendix C.

Appendices

A. Site Works Layout Plan

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B. Noise and Vibration Monitoring

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C. Mitigation Locations

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Within Site Boundary



Outside site boundary