

Job Name: 12- 14Upton Lane

Job No: 0056

Note No:

Date: 20.09.2020

Prepared By: Stuart Ede

Subject: Construction Noise and Vibration Management

Item	Subject
1.	<p>Objective</p> <p>This management plan defines the measures to control and limit noise emissions and vibration levels, at residential properties and other sensitive receptors in the vicinity of the Project.</p> <p>Construction will discuss and agree with the Local Authority agreement to this plan prior to the commencement of any works. In addition the local residents and any identified sensitive receptors will also be consulted.</p>
1.1.1	<p>General Requirements – Noise</p> <p>Best Practicable Means (BPM) of noise control will be applied during construction works to minimize noise (including vibration) at neighboring residential properties and other sensitive receptors arising from construction activities.</p> <p>The general principles of noise management are given below:</p> <p>Control at source:</p> <ul style="list-style-type: none">● 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. <p>Control across site by:</p> <ul style="list-style-type: none">● 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 tool box talks and site inductions.

1.2	<p>Best Practicable Means</p> <p>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:</p> <p><i>“reasonably practicable having regard among other things to local conditions and circumstances, to the current state of technical knowledge and to financial implications”.</i></p> <p>The Environment Agency will requires contractors to consider mitigation in the following order:</p> <ul style="list-style-type: none"> ● BPM as identified above, including: <ul style="list-style-type: none"> – 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 (eg shift workers, young mothers, the elderly, sick or disabled residents) the Agency would offer temporary relocation if required. These residents will be identified prior to works taking place. <p>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.</p>
1.3	<p>Consultation</p> <p>Consultation is carried out with the Newham Council by the issue of this plan and there agreement. Regarding the management of noise and vibration during construction of the Project.</p> <p>The following Measures are proposed to mitigate the Noise and vibration of this site.</p>

1.3.1	The maintenance of good community relations is vital. Experience shows that construction noise has the potential to cause disturbance but can be tolerated if prior warning and explanation has been given to residents. In particular 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. Construction will consult local residents/communities regarding works and to give them details of a responsible appointed person on site who will be able to deal with queries.
1.3.2	Construction working hours should be carefully managed. All works should take place between normal working hours and as dictated in the planning approval. Day of work again restricted by those set out in the planning approval.
1.3.3	The local authority has no pre-defined construction noise limits however, Construction will ensure that all works should employ best practicable means to control noise levels as far as is reasonably possible.
1.3.4	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 in order to protect residents from adverse noise and vibration levels. 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 Barrier works.
1.3.5	A pre-commencement external structural assessment of the properties closest to the construction areas where vibration is likely will be required.
1.3.6	Details of a 24/7 Complaints Procedure will be displayed on site sign boards and full details provided by newsletter to the residents and receptors.

1.4	Noise and Vibration Control Measure Construction will adopt the following more specific measures:
1.4.1	Control Measures Without prejudice to the other requirements of this section, Construction shall comply with the recommendations set out in BS5228:2009 and in particular with the following requirements: <ul style="list-style-type: none"> ● Vehicles and mechanical plant will be maintained in a good and effective working order and operated in a manner to minimise noise emissions. The contractor 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 any noise-sensitive receptors;

	<ul style="list-style-type: none"> ● 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; it is proposed that a full scaffold to the perimeter of the site and to the height of the proposed building is provided with a fully acoustic wrap details provided. ● Hours of operation should be strictly enforced and any deviations other than those previously identified will be with the consent of the local authority.
1.4.2	<p>Notifications</p> <p>Occupiers of adjacent properties will be informed by the Contractor 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 local 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 for Db Construction.</p>
1.4.3	<p>A regular programme of noise and vibration monitoring shall be implemented. A specialist company will be instructed to provide the required meters on the boundaries between the site, residents and receptors. The meter readings will be collated on a weekly basis and recorded to identify any breaches in this plan and to allow for mitigation for proposed construction tasks.</p>

Item	Subject
2.	<p>Mitigation of Temporary Effects</p> <p>Notwithstanding 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.</p>
2.1	<p>Construction Traffic</p> <p>Construction will incorporate the following measures into the scheme to avoid noise related impacts from construction traffic:</p> <ul style="list-style-type: none"> • 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.
2.2	<p>Vibration Mitigation</p>
2.2.1	<p>Consider that due to the there being no piling activities on this site that no additional mitigation implementation is required for vibration other than those outlined in this Plan</p>
2.2.2	<p>General Construction works are deemed minimal in respect of vibration with the use of vibratory rollers only.. .BS5228-2 notes “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” Residents should therefore be given prior warning of the use of vibratory rollers.</p>
2.3	

3.	Summery
	<p>This reports gives details of a noise and vibration construction management plan to be implemented by the Construction prior to and during the construction of the Project – Upton Lane.</p> <p>The location of noise sensitive receptors are identified where there is the potential for disturbance from either noise and or vibration during construction.</p> <p>The principles of noise management are outlined for which Construction shall comply with based on the recommendations set out in BS5228:2009.</p> <p>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.</p> <p>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.</p> <p>Noise and vibration monitoring locations are given in Appendix C.</p>

Addendum	
A. Site Works Layout Plan DCMP	