

Barratt London - Brentford

5. Clearly set out how the effects of construction noise to those living/working in proximity to works will be mitigated. Special attention should be given to BS5228:2009 Part 1 (Noise) and Part 2 vibration (in the case of basement works).

Response

Find attached Proposed Measures For Noise, Vibration and Dust Suppression

Proposed Measures for Noise, Vibration and Dust suppression

General

The site boundary is surrounded by 2.4m high hoarding. The buildings that are subject to any amount of structural alteration works will be scaffolded and fully Monaflexed (plastic sheeting) which will prevent any dust arising from activities or weather conditions that have not been dealt with by the mitigation practices. If full sheeting cannot be applied, the areas will be locally protected or use of sprinklers applied. All adjoining efforts will be made to reduce noise and vibration for the site operatives and neighbours by careful plant selection and planning of works and management of site activities.

The watering down/use of sprinklers of the area will be carried out promptly and where necessary to minimise dust transfer into neighbouring premises. The Site access is a hard tarmac surface and will be kept clean and tidy at all times so that dust cannot arise from deliveries. Wheel wash facilities will be provided at site Entrances and Exist to stop the spread of dust to the wider area. Records of daily inspections will be part of the site routine and will be recorded formally for both on and off site cleanliness and dust build up, and the site team alerted to any unplanned issues that arise with regard to dust.

Site will endeavour to only use bagged materials where possible, loose aggregate will be controlled in banded areas and careful planning will be used to manage the risk associated with dust, etc.

Deliveries during demolition including the export of waste materials will be managed by a logistics team and all deliveries will follow good practice and turn off engines minimising noise when on site, all delivery's to and from site will be covered or sealed . Our logistics co-ordination team will have the deliveries wait off site at several waiting areas/consolidation points set out in our logistics plan (i.e. South Mimms for northern approaching deliveries) and then called to site. Instructions will be communicated to ensure that vehicles and plant arriving at and leaving the site comply with the stated hours of work. This will be issued and explained/communicated to the operatives carrying out the works and monitored during the works concerned.

It will be the responsibility of all the Construction site team and the relevant contractor to ensure that all operatives have the correct level of competence and training to carry out the task being requested of them and the compliance with the best Practice guidance.

In the case of directly employed operatives, training records are held within the Company and any specific additional training given as required. Barratt London will also regularly initiate periodic training investing in our team's knowledge, understanding and ability.

be well maintained, properly silenced and used in accordance with the manufacturer's instructions and BS 5228. Adherence to this Code will demonstrate a positive attitude and commitment towards minimising environmental disturbance to local residents.

It is the responsibility of the Project Manager to ensure that all necessary Risk Assessments and Method Statements are developed, either for direct or sub-contract works for the activities to be undertaken. Sub-contractor method statements and risk assessments will be prepared and issued to Barratt London for review at least 10 working days prior to the commencement of that particular work activity. No work activity will be allowed to commence until the relevant method statement and or risk assessment has been reviewed and approved in line with Barratt procedure.

Barratt London construction operatives will be inducted into Site and any works carried out in addition to our standard risk controls arrangements will require additional control arrangements to be developed by the site management for the specific task or operation. Instructions should be given to ensure that vehicles and plant arriving at and leaving the site comply with the stated hours of work this will be issued and explained/communicated to the operative's carrying out the works and monitored during the works concerned. It will be the responsibility of all the Construction site team and the relevant contractor to ensure that all operatives have the correct level of competence and training to carry out the task being requested of them and the compliance with the best practice guidance.

Any hand held equipment that produces noise and or vibration will be subject Risk Assessment and we will follow Barratt London procedures addressing Vibration / Noise Exposure Limit Guides and HSE guidelines and ACOPs related to these activities and appropriate action taken to protect our neighbours and our operatives.

In the case of directly employed operatives, training records held within the Company and any specific additional training given as required. Barratt London will also regularly initiate periodic training investing in our team's knowledge, understanding and ability. Operatives will not be allowed to carry out works of which they have not received or demonstrated adequate training.

In the case of contractors, it will be a requirement and Barratt London will ensure that such training and competence levels are demonstrated for compliance with good practice and relevant codes. This will be through certification or training records of company and individuals and we will pursue contractors to continually improve and invest in there operative and companies training.

Copies of all appropriate records are to be maintained on site. The contractor will be held responsible for ensuring that all plant and equipment, including any which may be on hire, is well maintained, properly silenced and used in accordance with the manufacturer's instructions and BS 5228.

Structural Alterations to Existing Building

All deliveries will follow good practice and turn off engines, thereby minimising noise when on site.

To reduce noise levels so far as practical, machines such as Mini piling rig and excavators that will be used, they will be well maintained and serviced regularly.

On day one of the basement works a noise assessment will be carried out by the safety and environmental manager to establish noise levels at the boundary of the site and to advise of any additional precautions that may be considered necessary to reduce the emissions.

It is not expected or planned that a pecker type of breaker attached to the excavator will be required on this project but should the need be identified additional precautions such as solid timber screens will be erected where the need is identified. It is worth noting that a sheeted scaffolding screen will be in place around the library and its existing basement which will give some attenuation to the levels of noise.

Any cutting of masonry will be wet cut or vacuum extracted to a collection point vessel and removed from site in closed skips or containers if and when required. Breaking out method such as bursting will be explored as a possible means of reducing noise during the basement works for removal of existing elements of concrete slab.

A mini piling rig is to be used in this phase of the work with in the basement, when the excavator is tracking (moving) over the site, there will be an element of rumble in the ground but experience shows us that this is very localised to the machine and not expected to cause vibration problems to surrounding properties, movements of plant will be planned and kept to a minimum and where necessary timbers used for the machine to track on minimising impact noise.

Noise and Vibration dust suppression for Ground works

Dust pollution will be minimised during ground works by the following methods and practices.

Site is surrounded by a solid 2.4m high hoarding, dust arising from activities or weather conditions that has not been dealt with by the other mitigation practices in these areas will be locally protected or use of sprinklers or details listed below
All efforts will be made to reduce dust from ground works to protect neighbours by careful plant selection and use and careful planning of works and management of site activities.

Deliveries during ground works including waste materials and the import of the new materials will be managed by a logistics team and all deliveries will follow good practice and turn off engines minimising noise when on site.

Our logistics co-ordination team will have the deliveries wait off site at several waiting areas/consolidation points set out in our logistics plan (I.E south Mimms for northern approaching deliveries) and then called to site. Instructions will be communicated to ensure that vehicles and plant arriving at and leaving the site comply with the stated hours of work this will be issued and explained/communicated to the operative's carrying out the works and monitored during the works concerned.

It will be the responsibility of all the Construction site team and the relevant contractor to ensure that all operatives have the correct level of competence and training to carry out the task being requested of them and the compliance with the best Practice guidance.

Dust emissions during ground works will be suppressed and managed by the following means.

Watering Application by means of hoses during land clearing and excavation operations.

During periods of high winds Control Method we will Apply water as necessary, and prior to expected wind events.

Stop work activities temporarily if management of dust emissions has not been achieved during, Earthmoving, Excavation Activities

Pre-application of water to the depth of the proposed cuts or equipment penetration.

Pre-grading planning. Grade each phase separately and time to coincide with the construction phase.

Wind fencing if required. Three to five foot barriers with 50% or less porosity, adjacent to work areas.

Prior to any works starting, Barratt London shall inform occupiers of all properties around the site that may be affected by noise, dust or vibration arising from construction works and proposed hours of work and their expected duration.

Barratt London will place notices in conspicuous positions around site, detailing to local residents and informing them of the agreed hours of work, nature of operations etc.

To reduce noise levels so far as practical, machines such excavators that will be used, they will be well maintained and serviced regularly.

Barratt London will take all necessary precautions to prevent smoke emissions, Dust or fumes from plant or stored fuel oils relevant to the ground works and site in general from drifting into residential areas. In particular, measures will be taken to ensure that all plant is well maintained and not left running for long periods when not in use.

There will be an element of noise when the machines are working but it is not believed that this will be excessive at the site boundary.

All plant and equipment used on site will be subject to The Provision and Use of Work Equipment Regulations 1998. Our plant registers will be maintained by each of the plant operator's

It is not expected or planned that a pecker type of breaker attached to the excavator will be required on this project but should the need be identified additional precautions such as acoustic shrouds for the pecker which will give some attenuation to the levels of noise and reduce emissions and timbers used for the machine to track on minimising impact noise.

If concern's are expressed over vibration emissions, a specialist contractor will attend site with the appropriate equipment to monitor the precise levels of the vibration and advise of any reasonably practical procedures that can be adopted to reduce the levels of the vibration.

Effects of noise and vibration to any other place where the acoustics increase the risks of emissions will be evaluated with site specific assessments and method statement amended to take account of the findings no works will proceed until these arrangements are implemented if required.

Copies of all appropriate records are to be maintained on site. The contractor will be held responsible for ensuring that all plant and equipment, including any which may be on hire, is well maintained, properly silenced and used in accordance with the manufacturer's instructions and BS 5228.

Monitoring the works.

Barratt London will install 2No. noise monitoring units and 1No. vibration monitoring unit

at the development site of Kidderpore Avenue, London NW3 in order to record the noise and vibration levels created on site by the demolition and construction works during the re-development of the Kidderpore Avenue project. The equipment to be used noise monitoring units are a Sonitus EM2010 Sound Level Monitor and the vibration unit is a Vibrock 901 Seismograph.

It is proposed to install the noise monitoring units either on the scaffolding or some other form of fixed location –one near to Block C and Kidderpore Avenue and another near to Blocks D & F and Finchley Road. The units log noise levels (5 minute periods) continuously and the data are automatically uploaded daily over the mobile network to a server where they are stored. A login to a website is provided which shows the measured levels as graphs and also a calendar view with a value for each day. The value indicated is the standardly adopted 10 hour average L_{Aeq} noise level for the working day and it is compared to the standardly adopted criterion of 75dBA. If this criterion is exceeded, the value is shown in red as a marker. It is also possible to have an alert (via either text or email) when the criterion is exceeded direct to the Construction project manager.

It is proposed to install 1No. vibration monitoring unit at site – location to be confirmed. Vibration levels would be continuously logged with the data periodically downloaded remotely. The recorded vibration levels can then be compared to building structural damage criteria and/or occupant sensitivity criteria, as appropriate. All of the information would be made available to LBC if so required.

The noise and vibration units will require re-calibration after 6 months this will be undertaken by an accredited company whilst the meters remain in-situ. If the noise meters are required to stay at site longer than 12 months, the noise units will need to be returned to the suppliers for full re-calibration of the entire system, replacement will be installed whilst this is carried out.

Noise and Vibration dust suppression Hard and Soft Landscaping

Dust pollution will be minimised during the landscaping works by the following methods and practices and mitigated by the various elements listed.

Site is surrounded by a solid 2.4m high hoarding, any dust arising from activities or weather conditions that has not been dealt with by the other mitigation practices in these areas will be locally protected or use of sprinklers or by way details listed below and careful management.

All efforts will be made to reduce dust from ground works to protect neighbours by careful plant selection and use and careful planning of works and management of site activities, storage and distribution Barratt London will investigate any elements that can be pre-cut or manufactured off site eliminating the processes locally. Deliveries during the Landscaping works, including the export of waste materials and the import of materials all delivery's will to and from site will be covered. Will be managed by a logistics team and all deliveries will follow good practice guide and turn off engines minimising noise when on site.

Our logistics co-ordination team will have the deliveries wait off site at several waiting areas/consolidation points set out in our logistics plan (I.E south Mimms for northern approaching deliveries) and then called to site. Instructions will be communicated to ensure that vehicles and plant arriving at and leaving the site comply with the consented hours of work this will be issued and explained/communicated to the operative's and contractors carrying out the works and monitored during the works associated.

It will be the responsibility of all the Construction site team and the relevant contractor to ensure that all operatives have the correct level of competence and training to carry out the task being requested of them and the compliance with the best Practice guidance competency will be assed prior to works commencing.

Dust emissions during Hard and Soft Landscaping works will be suppressed and managed by the following means.

Watering Application by means of hoses during landscaping and excavation operations.

During periods of high winds Control Method we will Apply water as necessary, and prior to expected wind events.

Stop work activities temporarily if management of dust emissions has not been achieved during, Earthmoving, Excavation Activities

Pre-application of water to the depth of the proposed cuts or equipment penetration.

Pre-grading planning. Grade each phase separately and time to coincide with the construction phase.

To reduce noise levels so far as practical, machines such excavators that will be used, they will be well maintained and serviced regularly.

Barratt London will take all necessary precautions to prevent smoke emissions, Dust or fumes from plant or stored fuel oils relevant to the ground works and site in general from drifting into residential areas. In particular, measures will be taken to ensure that all plant is well maintained and not left running for long periods when not in use.

There will be an element of noise when the machines are working but it is not believed that this will be excessive at the site boundary.

All plant and equipment used on site will be subject to The Provision and Use of Work Equipment Regulations 1998. Our plant registers will be maintained by each of the plant operator's

The excavators and landscaping equipment such as cutting devices that should be identified as requiring additional precautions such as wind screening or dust collection for cutting equipment which will give some attenuation to the levels of noise and reduce dust emissions where possible ply timbers will be used for the machine to track on minimising impact noise emissions.

If concern's are expressed over vibration emissions, a specialist contractor will attend site with the appropriate equipment to monitor the precise levels of the vibration and advise of any reasonably practical procedures that can be adopted to reduce the levels of the vibration.

Effects of noise and vibration to any other place where the acoustics increase the risks of emissions will be evaluated with site specific assessments and method statement amended to take account of the findings no works will proceed until these arrangements are implemented if required.

All staff managing and working on these activities will be trained and competent and responsible. all plant and equipment on site , including any which may be on hire, will well maintained, properly silenced and used in accordance with the manufacturer's instructions and BS 5228. Adherence to this Code will demonstrate a positive attitude and commitment towards minimising environmental disturbance to local residents.