



Dust, Noise & Vibration Management Plan

Leisure Development at
Former North Selby Mine,
New Road, Deighton,
York


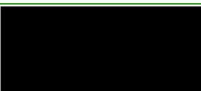


HARWORTH ESTATES
INVESTMENTS LIMITED

R22.11481/ 2/DNVMP/IK
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REPORT DETAILS

Client	Harworth Estates Investments Limited
Report Title	Dust, Noise & Vibration Management Plan for Leisure Development
Site Address	Former North Selby Mine, New Road, Deighton, York YO19 6EZ
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QUALITY ASSURANCE

Issue No.	Issue Date	Author	Technical Review
1	19/05/22		
		I Kelly AMIOA Consultant	R Kennedy BEng, MIOA Director
2	25/05/22		
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A	Dust, Noise & Vibration Complaint Log Form
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1.0 INTRODUCTION

1.1 Background

- 1.1.1 It is proposed that the land at the former North Selby Mine, off New Road, Deighton is to be redeveloped into leisure development hosting caravans, glamping facilities, lodges and static caravans.
- 1.1.2 Air quality impacts from fugitive dust emissions and impacts from noise and vibration generative activities during the construction phases have the potential to affect the nearest sensitive receptors.
- 1.1.3 An Air Quality Impact assessment was carried out in January 2019, which was submitted with the planning application. This concluded that with good practice dust control measures that air quality effects from construction works are predicted to be not significant. It was also concluded that PM10 and NO2 concentrations generated by traffic when the site is operational would have a negligible effect on nearby sensitive receptors. The document concludes that the air quality impacts from the proposed new development are considered 'not significant'.
- 1.1.4 A Noise and Vibration Chapter was included within the ES which considered the impact of the proposals on the nearest existing sensitive receptors. As part of the study a baseline noise survey was undertaken by White Young Green (WYG) in November 2018 at a number of locations in the vicinity of the proposed development. The results of the survey were used to inform the subsequent assessments.
- 1.1.5 An assessment of construction noise and vibration was scoped out of the Environmental Impact Assessment (EIA). Recommendations included the use of standard noise and vibration control methods, to be implemented through a Construction Environment Management Plan (CEMP). Example outline noise and vibration mitigation measures were presented and residual effects of 'not significant' were predicted to remain once control measures are in place.
- 1.1.6 Vibrock Ltd has been instructed to produce a Dust, Noise and Vibration Management Plan (DNVMP) to address Condition 19 of Planning Permission (Reference: 20/01546/FUL). The DNVMP will form part of a Construction Environmental Management Plan (CEMP) addressing noise, vibration and dust.
- 1.1.7 This management plan defines the measures to control and limit dust and noise emissions and control vibration levels for the duration of the works, at residential properties and other sensitive receptors in the vicinity of the development.
- 1.1.8 The Contractor 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 the proposed methods of work and to the steps proposed in order to minimise noise.

- 1.1.9 Notwithstanding this, the Contractor will discuss in detail and agree the proposed dust, noise and vibration control measures with the Local Authority.

2.0 DUST, NOISE AND VIBRATION PLANNING CONDITION

2.1 Condition 19

2.1.1 Condition 19 and the notes relevant to dust, noise and vibration is reproduced as follows:

19 Prior to commencement of the development, a Construction Environmental Management Plan (CEMP) for minimising the creation of noise, vibration and dust during the demolition, site preparation and construction phases of the development shall be submitted to and approved in writing by the Local Planning Authority. The CEMP must include a site specific risk assessment of dust impacts in line with the guidance provided by IAQM (see <http://iaqm.co.uk/guidance/>) and include a package of mitigation measures commensurate with the risk identified in the assessment. All works on site shall be undertaken in accordance with the approved scheme, unless otherwise agreed in writing by the Local Planning Authority.

NOTE: For noise details on hours of construction, deliveries, types of machinery to be used, use of quieter/silenced machinery, use of acoustic barriers, prefabrication off site etc, should be detailed within the CEMP. Where particularly noisy activities are expected to take place then details should be provided on how they intend to lessen the impact i.e. by limiting especially noisy events to no more than 2 hours in duration. Details of any monitoring may also be required, in certain situation, including the location of positions, recording of results and identification of mitigation measures required.

For vibration details should be provided on any activities which may results in excessive vibration, e.g. piling, and details of monitoring to be carried out. Locations of monitoring positions should also be provided along with details of standards used for determining the acceptability of any vibration undertaken. In the event that excess vibration occurs then details should be provided on how the developer will deal with this, i.e. substitution of driven pile foundations with auger pile foundations. Ideally all monitoring results should be recorded and include what was found and mitigation measures employed (if any).

With respect to dust mitigation, measures may include, but would not be restricted to, on site wheel washing, restrictions on use of unmade roads, agreement on the routes to be used by construction traffic, restriction of stockpile size (also covering or spraying them to reduce possible dust), targeting sweeping of roads, minimisation of evaporative emissions and prompt clean up of liquid spills, prohibition of intentional on-site fires and avoidance of accidental ones, control of construction equipment emissions and proactive monitoring of dust. Further information on suitable measures can be found in the dust guidance note produced by the Institute of Air Quality Management, see <http://iaqm.co.uk/guidance/>. The CEMP must include a site specific risk assessment of dust impacts in line with the IAQM guidance note and include mitigation commensurate with the scale of the risks identified.

3.0 SITE DESCRIPTION AND CONSTRUCTION PHASE

3.1 Site Description

3.1.1 The proposed leisure development is situated around 1.75 km northeast of the residential area of Escrick, approximately 1.8 km east of the village of Deighton, 2.9 km southeast of Crockey Hill Caravan Site, and 2.8 km west of the residential area of Wheldrake.

3.1.2 The development is located within the City of York Council area. There is one designated Air Quality Management Area 'City Centre AQMA (AQMA Order No.5), designated for the pollutant NO₂ Annual Mean concentration. This AQMA is greater than 5.5 km northwest of the leisure development, and will have no significant effect on the City Centre AQMA.

3.1.3 There are several Noise Action Plan Important Areas (IA) associated with the A79, which is a strategic trunk road situated to the west of the development site. The nearest IA is Noise Important Area ID: 6579 which is approximately 2.1 km to the south-east of the site.

3.2 Details of the Construction Works

3.2.1 Briefly, the proposed scheme will develop the former mine into a leisure development using existing characteristics of the site: Woodland, containing touring caravans and glamping facilities, will be developed amongst existing trees and woodland cover. Bowl, accommodating static caravans, will be developed across the flat and enclosed bowl (former pithead). Valley, containing lodges, will be developed to the southeast in the landform created by the mining in this direction.

3.2.2 The site will be developed over a 10-year period and will be constructed in a phased manner using the three areas described above, being worked from west to east.

3.2.3 Works will commence with minor site clearance, construction of concrete pads and laying of internal roads. There will be no demolition works as existing buildings on site will be retained.

3.2.4 The permitted hours of construction are as follows:

08:00 –18:00 hours Monday to Friday

09:00 –13:00 hours Saturday

No Sunday or Bank Holiday working

3.2.5 Construction traffic would initially enter the site from the existing access off New Road to the west of the construction compound.

- 3.2.6 Existing bunds and embankments at the north of the site will be enhanced by partially extending the existing mound and addition of a 2-metre close boarded fence. No stockpiles on the site will protrude above this screening and therefore plant/machinery should be adequately screened from the receptors to the north.
- 3.2.7 A construction compound will be located close to the existing wastewater treatment plant, approximately 370 metres from the nearest noise sensitive receptor.
- 3.2.8 Traffic generated during the construction phase could have the potential to increase traffic flows and change traffic composition on the A79 and have a potential impact at the IAs. To realise a 1 dB change in noise level in the short term, traffic flows would have to increase by 25% or a change in the proportion of heavy vehicles on the affected road link. As the A79 is already a busy route, the number of vehicles generated during the construction phase is unlikely to result in a 25% increase in traffic flow. As the A79 already carries a proportion of heavy vehicles, the traffic composition is unlikely to change once construction works begin. Therefore, any change in traffic flow and composition of vehicle types at the nearest IA are likely to be negligible during the construction phases.

4.0 POTENTIAL FOR DUST EMISSIONS

4.1 Introduction

4.1.1 A recognised technique for preventing complaints of dust nuisance from a new development is to prepare a DMP. The DMP outlines the overall approach taken by a site operator to ensure that dust emissions are minimised and any dust problems are satisfactorily dealt with.

4.1.2 The benefits of such a Scheme are four-fold:

1. Improved performance through a reduction of dust levels on-site and off-site, and a reduction in the number of complaints received;
2. Development of best practice by documenting the processes used to manage dust arising from construction activities, together with outcome and performance;
3. Documentation of processes which can be integrated across a site or range of sites offering a standardised approach; and
4. Written procedures for reporting any dust events enabling any issues to be managed, reviewed and audited both internally by the operator, and externally by regulators.

4.1.3 Emissions of dust to air can occur during the preparation of the land and during construction activities. Dust levels can vary significantly from day to day based on the level of activity, type of operation and weather conditions. Dust emissions can largely occur from vehicle movements, and track out of mud on local roads.

4.1.4 The scale of dust impacts is proportionate to the efficiency of dust control measures implemented on site.

4.1.5 Dust can impact the local community by causing nearby residents annoyance. Dust soiling can damage nearby ecosystems. In some cases construction sites can increase particulate matter concentrations, which have negative health effects.

4.1.6 It is good practice to have air quality assessments carried out for new developments to aid the decision making process for local planning authorities.

4.2 Emissions Data

4.2.1 The main air quality impacts that arise from construction activities and the operation of a new development are dust deposition, visible dust plumes, increase to PM₁₀ concentrations, and an increase to NO₂ concentrations.

4.2.2 An air quality assessment will identify human and ecological receptors that may be susceptible to adverse effects if a new development is given permission.

- 4.2.3 An air quality assessment was carried out in January 2019 as part of the planning application for the new development.
- 4.2.4 Impacts from the construction phase were detailed in this assessment. The summary of the risk of potential dust impacts from the earthworks, construction and track out of the proposed development on dust soiling was deemed a medium risk; with the potential impact of dust on human health and ecological categorised as a low risk from the proposed new development. These risks are based on no mitigation measures being used to control dust emissions.
- 4.2.5 The 2019 Air Quality Assessment also analysed the emissions from the operational phase of the proposed new development. This is achieved by modelling the potential emissions from a baseline scenario (without the development) and modelling the potential emissions from a scenario including the new development. The air quality assessment predicted that annual mean No_2 and PM_{10} concentrations at nearby sensitive receptors would be negligible, and therefore deemed not significant.

5.0 GOOD PRACTICE –DUST MANAGEMENT

5.1 Weather Conditions

5.1.1 Weather conditions can significantly affect dust propagation. A trigger system has been adopted to identify those weather conditions when there is an increased or high risk of wind-blown dust.

5.1.2 The trigger levels are shown below:

Wind Speed			Precipitation		
m/s	Beaufort Scale		Dry	Showers	Heavy Rain
>5.5	4+	Dust and loose paper raised. Small branches begin to move.	Red	Amber	Green
1.6-5.4	2-3	Wind felt on exposed skin. Leaves rustle. Wind vanes begin to move	Amber	Green	Green
0-1.5	0-1	Smoke drift indicates wind direction. Leaves and wind vanes are stationary.	Green	Green	Green

5.1.3 During dry windy weather (red conditions) , if any operations are identified as causing or likely to cause visible emissions across the site boundaries, or if abnormal emissions are observed within the site, the Site Manager will immediately modify, reduce or suspend those operations until either effective remedial actions can be taken or the weather conditions improve.

5.2 Staff Awareness & Complaint Procedure

5.2.1 Site personnel/site contractors involved with any construction activity shall be trained as to the potential sources and effective mitigation of dust.

5.2.2 Regular visual inspections will be conducted of the operation by the site personnel, as deemed necessary and especially during dry windy conditions to ensure that any dust sources associated with the operation are identified and dealt with promptly.

5.2.3 In the event of a failure of dust mitigation measures from the development area, for example in extreme weather conditions, the dust generating activity shall be temporarily suspended, until appropriate dust mitigation is implemented or until a change in weather condition occurs.

- 5.2.4 Should a complaint be received relating to dust emission from the development, the complaint will be recorded in a log which will be available for inspection by the Planning Authority upon request. The log shall include the following information:-

The name, address and telephone number of the complainant;
The date and time the complaint was received;
Weather conditions at the time of the complaint;
The nature of the complaint; and
Details of any action taken as a result of investigation into the complaint.

5.3 Long-term 'Nuisance' Dust (Dust Deposition and Soiling) Monitoring

- 5.3.1 If deemed necessary following a dust complaint, long term monitoring of dust levels is recommended over several months using equipment such as a dry foam Frisbee deposit dust gauge.
- 5.3.2 In such a circumstance a dust monitoring instrument should be sited adjacent to the complainant's property with monthly analysis of dust deposition and dust soiling.
- 5.3.3 If deemed necessary, in response to the dust complaint or exceedance, dust monitoring may also include the deployment of a PM₁₀ and PM_{2.5} automatic dust analyser to assess the significance against the Air Quality Objectives.

6.0 DUST MANAGEMENT AND CONTROL MEASURES

6.1 Communications

6.1.1 Develop and implement a stakeholder communications plan that includes community engagement before work commences on site.

6.1.2 Clearly display the name and contact details of the person accountable for any air quality and dust issues on the site boundary, as well as the head or regional office contact information:

William Flannigan
Flannigan Estates Ltd
43 Chapel Lane
Wilmslow
Cheshire
SK9 5HW
Tel: 01625 524 021

6.2 Site Management

6.2.1 Create a complaints log; detailing all complaints, identifying any causes, recording any actions taken. Ensure actions taken are appropriate to reduce emissions and done so in a timely manner.

6.2.2 Make this complaints log accessible to the Local Authority.

6.2.3 All dust/air quality incident on-or-off site must be logged including information as to how the incident was resolved. An example being mud track out on local roads. A resolution would be the frequent use of a road sweeper deployed on the local roads, or use of a wheel wash facility for outward traffic from the development.

6.3 Monitoring

6.3.1 Create an inspection log. This log should be made available to the Local Authority.

6.3.2 Daily on-site and off-site inspection, of nearby receptors (including roads) to visually inspect any dust soiling of street furniture, cars, window sills within 100m of the development. These inspections should be logged. Cleaning should be provided if evidence of dust soiling from the development is found.

6.3.3 Regular site inspections should be taken to ensure compliance with the DMP. Results should be logged.

6.3.4 When an activity is expected to have a high potential for dust emission, the frequency of inspection should increase.

- 6.3.5 The frequency of inspections should increase on dry windy days.
- 6.3.6 A dust monitoring scheme should be agreed with the Local Authority. Where possible commence baseline dust monitoring up to 3 months before work commences on the development. This will serve as comparable data to see the dust impacts of the development.
- 6.4 Preparing and Maintaining the Site
 - 6.4.1 When planning the site layout, dust causing activities and machinery where possible should be located away from sensitive receptors.
 - 6.4.2 The development design aims to provide an enhancement of the northern screening mound, via seeding and extending, and the inclusion of a 2m high timber fence to aid visual screening. It is anticipated that no stockpiles on site will exceed this height. Such an approach adheres to the IAQM recommendation for screens and barriers.
 - 6.4.3 There will be no crushing of material on-site and current buildings are being retained so there will be minimal high-potential dust generation for lengthy/extensive periods.
 - 6.4.4 Runoff of water or mud should be avoided.
 - 6.4.5 Site barriers, fencing and scaffolding need to be kept clean using wet methods.
 - 6.4.6 Any materials that have potential to produce dust should be removed from site as soon as practicable. If such materials are being re-used these materials should be suitably covered.
 - 6.4.7 Where practicable stockpiles shall be covered or fenced to prevent wind whipping.
- 6.5 Operating Vehicle/Machinery
 - 6.5.1 All vehicles will switch off engines when stationary.
 - 6.5.2 Where possible the use of diesel/petrol powered generators shall be avoided. Battery powered or mains powered equipment will be used where practicable.
 - 6.5.3 A maximum speed limit for surfaced roads of 15mph and unsurfaced roads of 10mph will be implemented.
- 6.6 Operations
 - 6.6.1 Cutting, grinding, or sawing equipment at the site shall be fitted with or used in conjunction with suitable dust suppression techniques such as Local Extraction Ventilation (LEV) systems, and Sprays.

- 6.6.2 All skips used will be covered.
- 6.6.3 Drop heights from conveyors, loading shovel buckets, and other loading vehicles or equipment shall be minimised. Water sprays will be used where possible.
- 6.6.4 Spill kits and other such cleaning equipment will be readily available to clean spillages as quickly as possible.
- 6.7 Waste Management
 - 6.7.1 Open fires shall not be permitted on the site.
- 6.8 Earthworks
 - 6.8.1 Earthworks areas and exposed areas shall be seeded as soon as practicable.
- 6.9 Construction
 - 6.9.1 Sand and other aggregates shall be stored in bunded/shielded areas.
- 6.10 Trackout
 - 6.10.1 Road sweepers (water-assisted dust sweepers) shall be deployed on site access roads and local road network.
 - 6.10.2 Vehicles will be covered/sheeted when entering and leaving the development to protect against escaping material.
 - 6.10.3 Create a log for haul route inspections. This should detail any action taken upon discovery of any damage to a haul road. Ensure maintenance of such routes is carried out as soon as practicable.
 - 6.10.4 A water bowser shall be regularly deployed regularly to keep haul routes damped down.
 - 6.10.5 A wheel wash facility inclusive of rumble grids shall be implemented at the site.

7.0 NOISE AND VIBRATION SOURCES & SENSITIVE RECEPTORS

7.1 Noise and Vibration Sources

7.1.1 Noise and vibration generated by use of the equipment has the potential to result in adverse or significant adverse impacts at the nearest noise and vibration sensitive receptors. Especially when activities are undertaken at their closest point to the receptors.

7.1.2 The following plant and machinery will be deployed at the site during the construction phases:

Mini digger (tracked)
Dumper 6-10 tonne (tracked).
360 excavator (rubber duck).

7.1.3 Other noise and vibration generative sources and activities may include the following:

Petrol / diesel generators for site power.
Deliveries and haulage vehicles travelling on designated haul routes.
Hand tools e.g., angle grinders, cutting tools etc.
Loading/unloading of materials at construction compound and at point of build.
Concrete mixers and use of poker vibrator.
Road planning and vibratory compactors.

7.1.4 Drilling and piling will not be required during the construction phases. There will be no crushing of concrete and existing buildings will be retained.

7.2 Noise and Vibration Sensitive Receptors

7.2.1 The table below presents the nearest noise and vibration sensitive receptors to the redline boundary of the site.

Receptor ID	Receptor Name	Distance to Nearest Redline Boundary, metres
R1	Spring House Farm	625
R2	Sheepwalk Farm Cottages	25
R3	Warren House Farm	210
R4	Chequer Hall Farm	450

8.0 NOISE AND VIBRATION CONTROL MITIGATION MEASURES

8.1 General Requirements

8.1.1 Generic safeguards exist to minimise the effects of construction noise and vibration; and include the various EC Directives and UK Statutory Instruments that limit noise emissions of a variety of construction plant.

8.1.2 The adoption of Best Practicable Means (BPM), as defined in Section 72 of the Control of Pollution Act 1974, is usually the most effective means of controlling noise from such sites.

8.2 Vehicles on Access Roads and at Construction Compound

8.2.1 The access road to the construction compound will be maintained so as to be free from potholes or damage. This is to ensure that noise from vehicle movements is kept to a minimum. All drivers of vehicles visiting the site are reminded that there are noise sensitive dwellings in the vicinity of the site and that best working/driving practices need to be maintained at all times.

8.2.2 The following details the best practice measures that will be employed on site:

Give consideration to noise and local residents when approaching the site.

Operate vehicles at low speeds on the access road where possible.

Avoid heavy acceleration when exiting the site road onto the main highway where safe to do so.

No sounding of vehicle horns at any times.

Drivers will be reminded that if reversing alarms are installed to vehicles then reversing whilst on site will be kept to a minimum.

Any deliveries would be programmed to arrive during daytime construction hours only.

Ensuring that vehicles do not park or queue for long periods in the vicinity of sensitive receptors with engines running unnecessarily.

8.3 Management and Communication

8.3.1 It is well established that good working techniques and practice can significantly affect the level of noise and vibration produced from construction activities. All site personnel will be made aware of their potential to create excessive noise whilst operating machinery and plant. Examples could include revving of engines unnecessarily, sounding vehicle horns and dropping loads from height.

8.3.2 On this basis all staff and any visiting operatives must ensure that their working practices are consistent with the aims of this Noise Management Plan. Signage will be prominently displayed at the site entrance and will serve the purpose of reminding staff and visitors that noise should be kept to a minimum at all times.

- 8.3.3 Clearly display the name and contact details of the person accountable for amenity issues, as well as the head or regional office contact information:

William Flannigan
Flannigan Estates Ltd
43 Chapel Lane
Wilmslow
Cheshire
SK9 5HW
Tel: 01625 524 021

Staff Training

- 8.3.4 All site staff would receive appropriate periodic environmental training throughout the period of the works. Site staff should be trained to employ appropriate techniques to keep noise to a minimum.
- 8.3.5 As part of the training site staff should be made aware of the following:

Proper use and maintenance of tools and equipment.

Noise emitting plant to be located so that it has the least amount of noise impact on the nearby sensitive receptors.

Avoid unnecessary noise when carrying out manual operations and when operating plant and equipment. i.e., turn plant off when not in use, avoid unnecessary use of horns other than for safety reasons.

Make site staff aware of the normal working hours and if required inform the appointed construction site public liaison and the site agent of any requirement for out of normal working hours operations.

Community Relations

- 8.3.6 The contractor should establish the location of all nearby sensitive receptors. The receptors presented above provide a guide to the nearest noise and vibration sensitive locations. It is advised that a person is appointed to liaise with the public and inform them of the following:

Duration of site works.

Normal working hours.

Notice of any out of normal working hours to be expected.

Any disruption that is expected.

- 8.3.7 Good communications with neighbouring residents will be established, ensuring that they know how to raise any issues that they may have and that these will be taken seriously. Provision of contact details for a site representative so that noise and vibration complaints arising from the works are dealt with pro-actively and that subsequent resolutions are communicated to the complainant.
- 8.3.8 Good relations can be developed by keeping the public informed of progress and by treating complaints fairly and as soon as possible after they are reported. Effective methods of keeping local residents informed include leaflet drops, posters, public meetings, exhibitions and guided site visits.
- 8.4 Physical Controls
- 8.4.1 A number of generic noise and vibration control measures exist and the most effective is the adoption of Best Practicable Means (BPM) as defined in Section 72 of the Control of Pollution Act 1974. A number of these measures are repeated below:

Noise

Working outside of the times permitted in Section 3 will not be undertaken.
Careful planning of activities and selection of plant to reduce noise emissions.
Locating static noisy plant in use as far away from sensitive receptors as is feasible for the particular activity.
Using suitable equipment and ensuring such equipment is properly maintained and operated by trained staff.
Using silenced equipment where possible, in particular silenced power generators if night-time power generation is required for site security or lighting.
Vehicles and plant to be properly maintained and operated according to manufacturers' recommendations, in such a manner as to avoid causing excessive noise.
Engine compartments should be closed when equipment is in use and the resonance of body panels and cover plates reduced through the addition of suitable dampening materials.
Where practicable, rubber linings would be used on chutes and dumper trucks, etc.
Drop heights would be minimised when loading/unloading vehicles.
Ensuring plant machinery is turned off when not in use.
Care to be taken regarding the need for reversing alarms, where possible, install non-tonal alarms.
Generators and water pumps required for 24-hour operation should be silenced and/or screened as appropriate.
The use of temporary acoustic barriers where appropriate should be considered if plant is likely to be visible above topographic features i.e. bunds and close boarded fence to the north of the site.

General Requirements –Vibration

- 8.4.2 BPM should be adopted with respect to construction generated vibration and associated activities; and, indeed, many of the generic measures listed for noise will also help to minimise vibration. In particular, all plant items are to be properly maintained and operated according to manufacturers' recommendations in such a manner so as to avoid causing excessive vibration, whilst careful consideration should be given to the methods of work.
- 8.4.3 Significant levels of vibration can be generated in the vicinity of specific mechanised construction activities, for example when using vibratory rollers during the formation of internal roads and HGVs travelling within the site. The distance from the plant and activities at which the onset of complaints are likely will be determined by a number of factors including ground conditions, the condition of the plant and machinery and working practices. In general the minimum distance at which the onset of complaints are likely, i.e., a construction vibration level of $1.0 \text{ mm}\cdot\text{s}^{-1}$ Peak Particle Velocity (PPV), is 20-23 metres for vibratory rollers and 17 metres for HGVs.
- 8.4.4 For the majority of the construction phase and when activities are remote from existing vibration sensitive receptors, it is anticipated that vibration levels as a result of the works will be negligible at the receptors.
- 8.4.5 Where construction activities are undertaken close to site boundaries and the existing vibration sensitive receptors, with the application of the management controls, community communication and application of BPM, it is anticipated that at worst any adverse impacts will be temporary and likely to be of short duration.

9.0 NOISE & VIBRATION COMPLAINT INVESTIGATION PROCEDURE

9.1 Action Plan Following Receipt of Justified Complaint

9.1.1 In the event of the receipt of a justified noise and/or vibration complaint the contractor will undertake the following:

The Contractor will identify the source of the noise or vibration that triggered the exceedance. The activity/work that generated noise and/or vibration be stopped.

The Contractor will undertake an investigation to determine the likelihood that the activity might generate further noise or vibration exceeding a trigger level and in particular, higher magnitudes of noise or vibration.

If requested by York City Council (YCC), will undertake measurements of noise and/or vibration at the affected receptor, in the location and for the durations described in Section 4.2 and 4.3 below.

The Contractor will arrange that the noise or vibration monitoring records of the complaint investigations are made available as soon as possible to YCC.

If an exceedance of the threshold level is determined through measurement, the Contractor will review the working method and machinery to determine whether alternatives are available that will reduce the risk of recurrence.

If better practicable means are available and judged necessary to eliminate the risk of recurrence of the noise and/or vibration during the working periods, works will not be recommenced until a revised method or substitute machinery has been put in place.

If no practicable means can be identified by which the risk of recurrence can be averted, the work causing the noise or vibration will be resumed, but only under supervision and consultation with YCC and with the greatest possible care.

9.2 Noise and Vibration Threshold Levels

9.2.1 To assist with compliance during the lifetime of the construction works and when investigating receipt of a justified complaint, noise and vibration compliance triggers are proposed at the nearest noise and vibration sensitive receptors.

9.2.2 The Contractor will be required to comply with these trigger levels and take actions to reduce noise and vibration from construction activities as far as it is reasonably practicable to do so if they are exceeded.

Noise

9.2.3 The threshold values for noise have been derived adopting the guidance presented in BS 5228-1:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites: Noise. Based on the results of the baseline noise survey undertaken by WYG and the ABC Threshold Values presented in BS 5228 the threshold construction noise levels at the nearest receptors are presented in the table below.

Receptor	Daytime Construction Noise dB $L_{Aeq,T}$	
	Measured Existing Daytime Façade dB $L_{Aeq,T}$ *	Threshold Value dB $L_{Aeq,T}$ (Façade Level)
R1 (Spring House Farm)	48	65 (category A)
R2 (Sheepwalk Farm Cottages)	38	65 (category A)
R3 (Warren House Farm)	39	65 (category A)
R4 (Chequer Hall Farm)	50 **	65 (category A)
* This is a free-field measured level converted to a façade level through the addition of 3 dB. ** This level is taken from LT2 and is the average of several weekday daytime period values. The measured values at ST4 to the south of the Farm are in excess of 65 dB(A) which is likely due to the influence of Wheldrake Lane and therefore not representative of Chequer Hall Farm.		

9.2.4 The values in the final column of the table above represent the total ambient noise level ($L_{Aeq, 1hour}$) not to be exceeded, from all sources associated with the construction phase over the specified construction hours. These levels represent a façade construction noise level (a measurement made within 1 metre of the dwelling). If the measurement is undertaken greater than 3.5 metres from the façade (i.e., free field conditions) then the relevant threshold value should be reduced by approximately 3 dB.

9.2.5 BS5228-1 indicates that these levels will apply over a typical working day, 08:00 –18:00 hours Monday to Friday and 09:00 –13:00 hours on Saturdays.

9.2.6 The existing ambient noise levels (prior to site works) are sufficiently below the relevant threshold value that they are not likely to influence (i.e., force up) the threshold value.

Vibration

9.2.7 Following the guidance presented within BS 5228 2:2009+A1:2014 Noise and vibration control on construction and open sites –Part 2: Vibration, and the Institute of Acoustics (IOA) Monitoring and Control of Vibration from Demolition and Construction, ground borne vibration threshold levels have been derived. These are based on the threshold of medium magnitude of impact or at a threshold above which complaints are likely.

9.2.8 Human perception is more sensitive than the point at which cosmetic damage occurs (i.e., above 15mm.s^{-1} for transient events) and at which structural damage occurs (i.e., above 30mm.s^{-1}). Therefore, mitigating the effect on human perception will also ensure building damage is not incurred.

9.2.9 The table below details the vibration threshold value applicable at the nearest vibration sensitive receptors when averaged over the reference time period of 1 minute during the daytime construction hours detailed above.

Receptor	Construction Vibration Threshold Value
All receptors R1-R4	1 mm.s PPV ¹
¹ Time base T = 1-minute during construction hours	

9.3 Information to be Recorded in the Event of a Justified Complaint

9.3.1 An example complaint recording form is included in Appendix A to be completed on receipt of a justified complaint and submitted to York City Council, and if requested to undertake measurements of noise and/or vibration, records of applicable noise and/or vibration measurement results.

9.3.2 The log shall include the following information:

- The name, address and telephone number of the complainant.
- The date and time the complaint was received.
- The nature of the complaint.
- Details of any action taken as a result of investigation into the complaint.

10.0 DUST, NOISE AND VIBRATION MANAGEMENT PLAN (DNVMP) REVIEW

10.1 DNVMP Review Procedures

10.1.1 The DNVMP is a live document and subject to review on a basis determined within Condition 19 of the full planning permission. This DNVMP will be maintained and implemented for the duration of the construction phase, unless York City Council Planning Authority determines it should be reviewed. Following such notification from York City Council this document will be reviewed and revised accordingly within 1 month of notification or any other approved timescale. The revised NVMP will be implemented from the date it is approved and will replace any previously approved NVMP at the site.

10.1.2 Continued Dust Management effectiveness can be achieved by regularly reviewing the plan. Reviewing the plan may involve analysing any dust monitoring data, studying any complaints in the complaints log, checking any local development plans that may cause any cumulative impacts on the air quality in the area, and updating the Dust Management Plan with any changes in relevant laws and regulations, or advancements in the control of dust that could beneficially be implemented at this site.

10.1.3 The DNVMP will also be progressively developed if operational noise and vibration management requirements change over time.

10.2 Amendments to the DNVMP

10.2.1 Any amendments to the DNVMP will be agreed following consultation with York City Council.

APPENDIX A

Dust, Noise & Vibration Complaint Log Form

Noise & Vibration Complaint Log Form	
Time & Date of Complaint	Name & Address of Caller
General Information & Event Details	
Details of complaint (including description of noise/vibration).	
Description of activities being undertaken on site at the time of the complaint.	
Description of any activities off site not associated with the construction activities.	
Most likely cause of the complaint.	
Action(s) / Mitigation Measure(s) to be Adopted	
Feedback given to resident(s):	
Further Details	
Form completed by:	
Signature:	
Date:	