



# CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN REV.A

Proposed Care Home

Field Heath Road Uxbridge



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# 1 Introduction

- 1.1. The project relates to the full works that are to be carried out at the numbers 14-18 Pield Heath Road and number 2 Pield Heath Avenue, Uxbridge

The purpose of this Construction Management & Demolition Management Plan (“the Plan”) at this stage is to outline our approach to managing the execution of the proposals to create the Residential Care Home.

This document includes comment on the envisaged construction operations comprising:

- site establishment,
- logistics,
- managing the Stakeholders

The Plan demonstrates our management of the neighboring stakeholders and the interaction with the community.

The Plan forms part of the Planning Application proposals and envisages guiding their execution. Throughout the project, we will regularly review the Plan and maintain a communicative relationship with the council, advising them of such changes and/or improvements to the Plan as may occur.

The Plan sets out the proposals of the construction process and how any impact on the area will be reduced to the minimum and the process behind the management of this. Our time in the community must be with as low impact to the general operating of this area as possible and we have reviewed and reduced all risks associated with this.

The Plan provides an overview of the key project activities. The news to the community and stakeholders is imperative at the appropriate stage of the project execution together with relevant procedures and detailed method statements. This will be published and issued in a monthly newsletter to keep all in full communication of this.

We will also be preparing a Construction Phase Health and Safety Plan. Prior to selecting the appropriate contractors, we shall assess their project track record and management procedures to ensure their capability to deliver the project safely and with minimum practicable disruption and inconvenience to residents. Throughout the works we will manage the contractors to have them comply fully with our procedures and will be working within the parameters set out in this document.

## 2.0 Project Overview

- 2.1 The building will serve as a Residential Care Home for Simply. Simply have established several similar care homes throughout the country and the Design Brief has been developed as a result of Simply's experience and know-how in operating these. In addition to the care home the development will include a new utility infrastructure and all associated external works.

The building is intended to provide accommodation for up to 60 nr residents.

The care home facility will also have a kitchen and general offices and communal rooms.

The building is required to have vehicular circulation around the external service area. The Brief also dictated appropriate levels of car parking, the means of securing the site and the internal layout of the bedrooms and communal rooms as per Planning Consent.

- 2.2 The vehicular and pedestrian access to the site is located on Pield Heath Road  
This has been considered in the preparation of this Plan.
- 2.3 All works will be accessed via the main gate as above off – Pield Heath Road, this will provide direct construction traffic access to and from the site.
- 2.4 Due to the sites small footprint, Subcontractors will be expected to use public transport were possible, vehicle sharing is to be adopted as the site limited spaces will be via allocation, subcontractor's will be notified that there is to be no parking within the neighbouring streets or directly off Pield Heath Rd or Pield Heath Avenue.
- 2.5 Delivery vehicles will only be allowed to park on site for unloading and loading, were required appropriate permits will be applied for in advance of any larger loads.
- 2.6 A delivery schedule will be created and updated weekly forecasting deliveries the gate man will be responsible for booking vehicles in and out of site, no deliveries will be accepted unless booked in prior via site management.

All deliveries will be within the hrs of 9.00am and 14.45pm and 15:20pm and 5pm.

- 2.7 It not envisaged that there will be any road closures required during the demolition or construction phases however – any possible utility connections or diversions will be planned well in advance.

## 3.0 Proposed Site Works

### 3.1 Preliminary Programme

It is envisaged that the duration of works will be 18 months. The key elements of the development with regards to the potential impact on the surrounding area are: -

- Site Setup
- Bulk excavation – muck shifting
- Temporary Hoarding Fence
- Noise
- Vibration
- Dust
- Structural Steelwork of Superstructure
- Cranage

### 3.2 Site Setup

Site facilities will be temporary until the works are complete:

- Location of welfare facilities;
- Location of site personnel;
- Location of construction materials storage;
- Location of construction plant and equipment storage;
- Location of construction waste storage;
- Location of fuel storage; and
- Location of wheel wash facilities (as appropriate).

All storage areas will be located away from surface water drains and other sensitive receptors. Boundary hoarding will be erected along the site boundary.

### 3.3 Bulk Excavation

The contractor may remove the spoil by 'muck away' lorry, loading a parked lorry within the site. Appropriate traffic management measures to protect pedestrians and vehicles shall be implemented – see 4.2.2.

### 3.4 Temporary Hoarding Fence

A fully designed temporary hoarding scheme will be developed by Simply. The temporary works will be installed as the works progress. Note this will assist in the reduction of Db levels out with the site.

### 3.5 Frame erection by Crane

The frame will be erected by use of a tower crane works will be limited to between 0800- and 1700-hours weekdays, 0800 to 1300 hours Saturdays, deliveries will be between the hours of 9am and 2.45 pm and 3.45 pm and 5pm Monday to Friday to avoid disruption to the neighboring school.

Vehicles will be guided to and from site by a qualified banksman.

Appropriate Cranage lighting will be installed in accordance with Regulations, aviation detection lighting will be installed if required following full risk assessment.

### 3.6 Noise

The effects of noise from the construction site will be controlled by introducing management and monitoring processes to ensure that best practice methods are planned and employed to minimize noise during construction.

### 3.7 Vibration

The contractors will develop a Vibration Control and Mitigation Plan the contents of which are to be detailed in Appendix Dust & Vibration. At a minimum this will include the relevant thresholds for determining significant impacts (for both building damage risk and human disturbance) will be sourced from relevant standards and guidance. Estimated vibration levels during construction operations are unlikely to be perceptible to known stakeholders, however vibration levels will be monitored with measurements taken as necessary.

### 3.8 Dust

Dust levels are expected to be problematic, although dust suppression would be required during dry conditions or at request of Local Authority. Appropriate regard to the control of dust and exhaust emissions during the construction works will be included within Appendix Dust & Vibration.

### 3.9 Structural Steelwork of Superstructure

Within the detailed design, alternative forms of building technology have been considered to simplify the construction on site. The project and neighbors will potentially benefit from reductions in project duration consequential from any efficiency in logistics such as manual handling and transport/deliveries.

### 3.10 Plant & Equipment:

Site office / Canteen / Toilet – Shower Block / Bunded Fuel Tank  
2no. 20t excavator fitted with a choice either selector grab or bucket attachment  
1no. Manitou 1840 Forklift  
1no. Roller 9T  
1no. Dumper

## 4.0 Demolition Management Plan

Plan attached as appendix



## 5.0 Construction Management Action Plan

The following sections outline the key elements for consideration and demonstrates our commitment to manage, control and where possible mitigate the impact of the project on neighbors, the local community and infrastructure.

Many of the matters identified will be developed in more detail and dealt with at the appropriate construction stage by detailed site-based method statements. Method statements will be prepared and agreed for all major site operations in advance of the relevant works commencing. This is particularly for the groundworks and structural works.

### 5.0.0 Communication

#### 5.1.0 Neighborly Relations

As a developer / contractor we seek to create and maintain good neighbourly relations. Such relations are assisted greatly by good communication, and by keeping neighbor's and appropriate third parties regularly informed of site activities likely to impact on adjoining residents.

The contractors' representatives and the management team will be receptive to all reasonable concerns of the neighbor's and local community and will demonstrate a considerate and professional approach, to maintain a well-balanced relationship with neighbor's and the local public during project execution. Notices shall be posted on the site hoarding to keep neighbors advised of anticipated events, general progress of the works and any requirements for any abnormal works. Appropriate signage and information boards will be displayed on the hoarding.

##### 5.1.1 Considerate Constructors Scheme

The appointed constructor will be registered and comply with the requirements of the Considerate Constructors Scheme for the duration of the project. The works will be carried out in accordance with the Considerate Constructors Scheme and in such a way as to minimize the impact on the local environment and amenities.

A contact board will be displayed outside the site providing contact details. This will include names and telephone numbers of key construction staff so that neighbor's and the general public can make contact should they have cause to do so. Examples of contacts below.

Simply Site Liaison Officer  
Evan Kilpatrick  
Direct Dial : 44 (0) 7967 445 418  
Email: Evan.kilpatrick @simplyuk.co

Environmental Coordinator  
TBC  
Direct Dial :  
Email :



A complaints / contact book will be kept on site, which will be used to record details of any complaints made. This will include the name of the person making the complaint, the date, time and nature of the complaint and the action necessary to resolve the complaint. The complaints book will be regularly reviewed by the management team to ensure that any complaints are dealt with and resolved promptly.

Site management details will also be noted on the site notice board which will be installed on the boundary line at Pield Heath Road.

## 5.2 Site Establishment

The space available within the site will be utilised for the site office and welfare facilities and this will enable the execution of the project within the site confines. An existing incoming power and water supply will be utilised. Access will be maintained for the duration of the works via the main entrance Off Pield Heath Road. Temporary Hoardings will be erected around the-boundary with secure access.

## 5.3 Access

There will be 2 Access points to the site - one for pedestrian entry and the double gates which will be used for vehicular access only, as noted both will be off Pield Heath Road. The pedestrian gate will be secured via a digital key pad entry system the main gate for vehicle's will be locked and manned by a trained Banksman.

A temporary Cycle storage rack will be made available at the pedestrian entrance area. During the large volume concrete works a mobile concretepump may be positioned within the site boundaries. All necessary permits and licenses will be obtained in appropriate time from the Local Authority.

Visible signage will be erected detailing delivery process and visibility zones for delivery vehicles.

All heavy goods vehicles shall comply with the direct vision Standard with a rating of 3 stars minimum.

All deliveries to site particularly heavy goods shall be made using vehicles which have a class v1 mirror fitted in accordance with EU directive 2007/38/EC

During the period of bulk excavation from the site, there may be a continuous transfer of excavation spoil to muck away lorries. It is envisaged that the lorries will be parked within the site.

A wheel wash facility will be set up at the main gate with runoff water collected within our construction surface water management system.

A road sweeper will also be deployed during any excavation/ muck shifting exercise.

## 5.4 Traffic Management

The scale of the proposals means that a construction traffic management plan is necessary. As part of the Construction Management Plan, deliveries will be carefully managed to minimize disruption to neighbors.

All deliveries to site will be undertaken with appropriate regard paid to: -

5.4.1 Reversing vehicles to be directed by a Competent Person / banksman

5.4.2 Pedestrian and vehicle directional signage – suitable barriers will be erected

when deliveries arrive to prevent pedestrians accessing or crossing the footpath frontage of site.

## 5.5 Working Hours

Construction work shall be limited to *Monday to Friday 08:00 – 18:00hrs*

*Saturday 08:00 – 13:00hrs*

*No time on a Sunday or Bank Holidays*

## 5.6 Fire and Emergency Procedures

Contact names and telephone numbers will be made available in case of 'out of hours' emergencies relating to the site. This information will be displayed on the hoarding.

The contractor shall implement procedures to protect the site from fire. The site manager shall assess the degree of fire risk and formulate a Site Fire Safety Plan, which will be updated as necessary as the works progress and will also include the following:

- 5.6.1.1 Hot Work Permit regime.
- 5.6.1.2 Installation of the site firefighting equipment e.g., establishing fire points and installing and maintaining fire extinguishers etc.
- 5.6.1.3 Evacuation alarm.
- 5.6.1.4 Material storage and waste control.
- 5.6.1.5 Fire Brigade access.
- 5.6.1.6 No bonfire policy.

## 5.7 Security

All site personnel will have to sign in on arrival and sign out before leaving the site. This will be incorporated into the Site Rules and included as part of the site induction process. The front hoarding will be regularly inspected to ensure that it remains secure. The access door to the site will be controlled to only allow access for site personnel.

## 5.8 Health and Safety

A Construction Health and Safety Plan will be prepared for the works in accordance with the CDM Regulations. Risk Assessments will be developed and agreed. Sub-contractors detailed method statements will also be produced and safe methods of work established for each element of the works.

Site inductions will be held for all new site personnel to establish the site rules and to enforce safety procedures. All site personnel will be required to read the emergency procedures when signing in for the first time, and sign to the effect that they have read the procedures. These will include any relevant neighbourly issues.

## 5.9 Scaffolding

As already noted, scaffolding will be required to the front and rear of the property. Scaffolding will be used to provide workers with a safe temporary work platform. It will be planned, erected, inspected and tagged by competent persons and will be regularly inspected to ensure there are no risks to safety and will comply with the requirements of HSE regulations.

## 5.10 Good Housekeeping

The site will be kept in a clean and safe condition. The areas adjacent to the site will be regularly inspected and any site rubbish removed. The adjacent road and pavement will be kept clean. The perimeter hoarding will be repainted from time to time and will be kept in a neat and tidy condition. Any graffiti will be quickly removed from the hoardings. Offloading will generally be direct from vehicles onto the site. Materials will not be stored on public footpaths or roads. Waste and rubbish will be regularly removed from site and not allowed to accumulate to cause a safety or fire hazard. Welfare facilities will be provided within the site to discourage operatives from frequenting the interface between the site and public areas.

### 5.11 Environmental Matters

The selected constructor shall operate an environmental policy in which supports the following values, to:

- Conduct their activities with proper regard to the protection of the environment.
- Comply with all relevant regulatory and legislative requirements and codes of practice.
- Communicate with local communities to ensure the work causes the minimum disturbance and disruption.
- Ensure that staff have a good understanding of the environmental impacts of construction work and how to minimize these impacts.
- Ensure their suppliers and sub-contractors apply similar standards to their own work.
- During the early stages of the project the contractor shall carry out the following activities will be carried out to deal with environmental management:
- Prepare a Project Environmental Plan.
- Prepare and consult with the client and statutory authorities to obtain relevant approved licenses and consents
- Prepare a Site Waste Management Plan and consultation with supply chain partners and the design team to design out or minimize waste.

### 5.12 Waste and Material Management

A site Waste Management Plan will be prepared prior to the works commencing. All waste materials will be removed from site by a licensed waste contractor and discharged via the entrance to site off Pield Heath Road, using skips or lorries. Waste from this site will be dealt with in accordance with the waste duty of care in Section 34 of the Environmental Protection (Duty of Care) Regulations 1991 (b). Materials will be handled efficiently, and waste managed appropriately. The contractor shall be aimed to minimize waste and to recycle as much material as possible. Due to the limited space on site, waste will generally be sorted for recycling at the waste transfer station.

#### 5.12.1 Plant Storage/ material storage

Materials will stored on site within a dry and lockable storage containers as required – material schedules and weekly forecast will be monitored to ensure no over ordering or over- crowding of site limited space.

Plant will be secured on site with cctv monitoring in place, small plant will be stored in secured lockable tool chests.

### 5.13 Dust, Noise and Vibration

The development/construction site is adjacent to neighboring properties. The nature of the works means that special measures are necessary for the ordinary consequences of project execution. This Plan includes measures to practicably mitigate those ordinary consequences from such activities and as a matter of good practice:

#### Dust

##### 5.13.1 Demolition activities will use water as a dust suppressant;

- 5.13.2 Adjacent road surfaces will be frequently swept clean;
- 5.13.3 All loads delivered to or collected from the site will be covered where appropriate;
- 5.13.4 All road vehicles will be requested to comply with set emission standards;
- 5.13.5 Skips will be securely covered

## Noise and Vibration

- 5.13.6 The constructor shall take reasonable steps to minimize any noise disruption to adjacent occupiers.
- 5.13.7 Where it is necessary to carry out noisy activities, identify them in advance and give notice.
- 5.13.8 Operatives working in noisy areas will be monitored to ensure they are wearing the necessary protective equipment and that they are not
- 5.13.9 exceeding their permitted exposure periods.
- 5.13.10 Electrically operated plant will be used where practical.
- 5.13.11 Try to ensure all plant used on the site is effectively silenced.
- 5.13.12 No externally audible radios or other audio equipment will be allowed on site.

Refer to Appendices - Dust / Noise / Vibration for further details

## 5.14 Bio Diversity

Tree protection measures are being implemented to prior agreed zones mitigating possible disruption to any nesting birds.

## Appendix: Dust

### Dust Management

#### 1.1 Sensitive Management

Air pollution and nuisance dust emissions from construction activities are issues that require close attention and consideration.

Dusty emissions escaping the work area may cause nuisance through, for example, surface soiling, loss of visibility due to deposition, and effects on flora and fauna. Since it is difficult to suppress dust once it is airborne, it is preferable, where possible to prevent dust from being generated in the first place.

#### 1.2 Sensitive Receptors

Numerous construction activities have the potential to produce dust emissions, e.g., the movement and placing of granular materials and the excavation of foundations. Such activities have the potential to affect sensitive (local) receptors (e.g., residents).

#### 1.3 Dust Management Controls

The dust management controls that will be implemented by each development team throughout the construction phases are, as a minimum:

- Where practicable, ready mixed materials (e.g., use of ready mixed concrete) will be used to replace those that would otherwise have the potential to produce dust.
- Material stockpiles (e.g., granular materials, topsoil, excavated soils) will be minimized and positioned away from sensitive receptors where possible;
- Vehicles transporting materials capable of generating dust to and from site will be suitably sheeted on each journey to prevent release of materials and particulate matter. The sheeting material will be maintained in good order, free from excessive rips and tears;
- Regular monitoring of the road network near the site entrance / exit will be implemented to ensure appropriate additional measures are applied as required to minimize dust generation.

#### 1.4 Dust Control Monitoring

Other than the dust management controls outlined above, it is anticipated that routine monitoring to assess environmental nuisance will be required during construction works, provided the control measures outlined above are put in place. However, in the event of a complaint, simply will take appropriate action to deal with the problem.

Refer to 2.1e Customer Care Policy.

#### Relevant Documents

The Environmental Coordinator will keep records of the results of the regular monitoring undertaken. Additionally, a record of all environmental incidents that result in air pollution and remedial action taken will be recorded in an environmental incident logbook. Complaints received will be recorded and investigated by the Site Manager.



## 1.5 DUST RISK ASSESSMENT

The potential for dust emissions is to be assessed for each activity that is likely to take place.

1.5.1 Simply will undertake a detailed assessment where there is a 'human receptor' within:

- 50 m of the boundary of the site; or
- 50 m of the route(s) used by construction vehicles on the public highway, up to 500 m from the site entrance(s).

1.5.2 The risk assessment considers the potential effects of each development phase on the nearest receptors including:

- the risk of health effects from an increase in exposure to PM10 and PM2.5,
- annoyance due to the deposition of dust; and harm to the natural environment.

1.5.3 The dust emission magnitude is based on the scale of the anticipated works and should be classified as Small, Medium, or Large.

### 1.5.4 Earthworks Phase

Earthworks primarily cover excavation, haulage, tipping and stockpiling of soil type materials. This includes levelling the site and landscaping. The scale of potential dust emissions from this phase should be determined using the following criteria.

Large:

- total site area >10,000m<sup>2</sup>,
- potentially dusty soil type (e.g., clay, which will be prone to suspension when dry to due small particle size), or
- >10 heavy earth moving vehicles active at any one time on site, or
- Formation of stockpile enclosures
- >8m in height;
- total material moved >100,000 tons (where known).

Medium

- total site area 2,500m<sup>2</sup> – 10,000m<sup>2</sup>,
- moderately dusty soil type (e.g., silt), or
- 5-10 heavy earth moving vehicles active at any one time, or
- formation of stockpile enclosures 4m – 8m in height, or
- total material moved 20,000 tones – 100,000 tones (where known).

Small

- total site area <2,500m<sup>2</sup>, or soil type with large grain size (e.g., sand), or
- <5 heavy earth moving vehicles active at any one time, formation of stockpile
- enclosures <4m in height, or total material moved <10,000 tones (where known), or earthworks during wetter months.

### 1.5.5 Construction Phase

The key issues when determining the potential scale of dust emission during the construction phase include the size of the building(s)/infrastructure, method of construction, construction materials, and the duration of build. The criteria below should be used to determine the potential scale of dust emission for the construction phase.

#### Large

- total building volume >100,000m<sup>3</sup>, or piling, or onsite concrete batching; or sandblasting

#### Medium

- total building volume 25,000m<sup>3</sup> – 100,000m<sup>3</sup>, or potentially dusty construction material (e.g., concrete), or on-site concrete batching;

#### Small

- total building volume <25,000m<sup>3</sup>, or construction material with low potential for dust release (e.g., metal cladding or timber).

### 1.5.6 Dust Quality Monitoring

Background concentration levels will be taken around site. Concentration readings will be conducted monthly by Simply.

### 1.5.7 Monitoring and Action

Dust monitoring will be done through directional sticky pad dust gauge and a battery-powered filter reference, gravimetric PM<sub>10</sub> sampler in one unit for simultaneous monitoring of dust flux and airborne particulates. The sampler is programmed to run at 5 l/min continuously for 7 days so that the PM<sub>10</sub> sampling interval coincides with the recommended sticky pad sampling duration. This means that installations only need attending once a week by site staff.

Dust monitoring data will be collected from the dust monitors for the duration of the construction works. Monthly summaries to include mean concentrations, alert level exceedances and data capture rates for each month assuming continuous operation and will provide explanations for any exceedances and data loss.

### 1.5.8 Record of Dust Causing Episodes

When dust generating activities are taking place or during periods of prolonged dry or windy weather, dust logs will be completed to make a record of the visual levels of dust on site and any subsequent action that was taken.

When activities with a high potential to produce dust are being carried out during prolonged dry or windy conditions, inspections at the boundary of such activities will be completed to

ensure dust is controlled. Dust soiling checks of buildings within 50m will be increased to a daily check.

## 1.6 Sensitivity of People to Dust Soiling Effects

For the sensitivity of people and their property to soiling, the IAQM recommends that the air quality practitioner uses professional judgement to identify where on the spectrum between high and low sensitivity a receptor lies, considering the following general principles:

### High sensitivity receptor

- Users can reasonably expect an enjoyment of a high level of amenity; or
- the appearance, aesthetics or value of their property would be diminished by soiling and the people or property would reasonably be expected to be present continuously, or at least regularly for extended periods as part of the normal pattern of use of the land.
- Indicative examples include dwellings, museums and other culturally important collections, medium- and long-term car parks and car showrooms.

### Medium sensitivity receptor

- Users would expect to enjoy a reasonable level of amenity but would not reasonably expect to enjoy the same level of amenity as in their home; or
- The appearance, aesthetic or value of their property could be diminished by soiling; or
- The people or property would not reasonably be expected to be present here continuously or regularly for extended periods as part of the normal pattern of use of the land;
- Indicative examples include parks and places of work.

### Low sensitivity receptor

- The enjoyment of amenity would not reasonably be expected; or
- Property would not reasonably be expected to be diminished in appearance, aesthetics or value by soiling; or
- There is transient exposure, where the people or property would reasonably be expected to be present only for limited periods of time as part of the normal pattern of use of the land.
- Indicative examples include playing fields, farmland (unless commercially-sensitive horticultural), footpaths, short-term car parks and roads.

Dust Emission Magnitude Table

ACTIVITY	DUST EMISSION MAGNITUDE
Demolition	Large
Earthworks	Medium
Construction	Large
Trackout	Medium

## Sensitivity of the Area to Dust and Soiling effects on People and Property

Receptor Sensitivity	Number of Receptors	Distance from the Source (m) <sup>a</sup>			
		<20	<50	<100	<350
High	>100	High	High	Medium	Low
	10-100	High	Medium	Low	Low
	1-10	Medium	Low	Low	Low
Medium	>1	Medium	Low	Low	Low
Low	>1	Low	Low	Low	Low

<sup>a</sup> The sensitivity of the area should be derived for each of the four activities: demolition, construction, earthworks and trackout. See STEP 2B.

<sup>b</sup> Estimate the total number of receptors within the stated distance. Only the *highest level* of area sensitivity from the table needs to be considered. For example, if there are 7 high sensitivity receptors < 20 m of the source and 95 high sensitivity receptors between 20 and 50 m, then the total of number of receptors < 50 m is 102. The sensitivity of the area in this case would be high.

<sup>c</sup> For trackout, the distances should be measured from the side of the roads used by construction traffic. Without site specific mitigation, trackout may occur from roads up to 500 m from large sites, 200 m from medium sites and 50 m from small sites, as measured from the site exit. The impact declines with distance from the site, and it is only necessary to consider trackout impacts up to 50 m from the edge of the road.

### 1.7 Alert Levels

There are obvious visual signs that site will be operating at an increased risk of dust release. These signs will be related to:

- Weather (i.e., dry periods with higher wind speeds); and
- Site operations (i.e., activities with increased potential for dust release)

1.7.1 When it is clear that these conditions are occurring, simply should increase the frequency of visual assessments of dust release and monitoring of any visible surface soiling. This is particularly the case if the prevailing wind is in a direction towards sensitive receptors.

#### 1.7.2 Visual assessment of any dust release

This assessment will simply involve a Simply representative surveying the site for evidence of dust release. This may include, for example, observing the movement of vehicles, stockpiling and demolition. It should be obvious if such operations are leading to the release of dust emissions and the size and frequency of such releases.

1.7.3 The Site Action Levels set out below are recommended. These will be reviewed in the future as additional information becomes available.

- PM10 Concentrations: 190 µg/m<sup>3</sup> averaged over a 1-hour period

1.7.4 The following threshold alert values are to be adopted;

- Early Warning / Lower Threshold: a single occurrence of 15-minute average > 80µg/m<sup>3</sup>
- Upper Threshold: two consecutive 15-minute averages >80 µg/m<sup>3</sup>

1.7.5 Dust Breach Action Plan

Early warning breach – during long periods of dry weather conditions, addition water dampening to be provided to rubble and site arisings.

- Bucket loads to be dampened before being deposited throughout site
- Dumper loads to be dampened before being deposited throughout site
- Area of excavations to be dampened

Upper threshold breach – Site to stop work and apply dampening where necessary to control dust flow from site.

## Appendix Noise & Vibration

### Construction Noise and Vibration Management Plan

#### 1.0 Objective

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.

#### 2.0 General Requirements – Noise

Best Practicable Means (BPM) of noise control will be applied during construction works to minimize noise (including vibration) at neighboring 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

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, refer to Appendix Equipment for details.
- 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.:
- 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;
- Screening: for example, local screening of equipment or perimeter hoarding;

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.

Simply recognizes that construction operations by their nature are noisy, however the impact on those living and working in the vicinity must be minimized as far as is reasonably practicable.

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. Contractors 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 work shall be limited to Monday to Friday 0700 hours to 1900 hours and Saturday 0800 hours to 1300 hours with no noisy works out with these times or at any time on Sundays or bank holidays.

It is 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 in order to protect residents from adverse noise and vibration levels.

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

### 3.0 Noise and Vibration Control Measures

The Contractor will be required to adopt the following specific measures:

#### Control measures

Without prejudice to the other requirements of this section, the Contractor shall comply with the recommendations set out in BS 5228-1:2009 Code of practice for noise and vibration control on construction and open sites. Noise (+A1:2014) 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 minimize noise emissions. The contractor will ensure that all plant complies with the relevant statutory requirements;
- 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 noisypant 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;(5mph speed limit on site)
- 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 minimized 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.
- Vibration Monitoring to be set at 5 PPV for an amber warning and 10 PPV for a red.

#### 4.0 Notifications

Occupiers of adjacent properties along will be informed by the Contractor regarding the works taking place, including the duration and likely noise and vibration effects. Please refer to neighbor notification plan for details.

- Letter drop – Foundation Excavations and Muck shift
- Letter drop – Erection of Scaffolding,
- Letter drop – Commencement of Steel erection,

#### 5.0 Noise and vibration monitoring

A regular programme of noise and vibration monitoring shall be implemented as a minimum

##### Vibration Monitoring

The Contractor shall also limit vibration levels from site activities to between 0800 – 1700 hours weekdays, 0900 to 1300 hours Saturdays. No perceptible vibration is permitted in such buildings at any other time. Mitigation of Temporary Effects. Refer to Appendix Equipment for details of vibration equipment.

##### Breaching Vibration Levels

Vibration levels will be set as follows

- 5 PPV for an amber warning
- 10 PPV for a red warning

If 5PPV is reached an amber warning is given to the contractor. The contractor will then be asked to monitor the vibration levels over the next eight hours after the breach. However, it should be noted that there are no piling requirements with the foundation design.

Readings will be taken at 1hour intervals and noted in a vibration monitor book. If the breached is persistent the rig will be stopped and checked for any defects. Background vibration will be taken at this time when the rig has stopped to check calibration levels.

To return to working after an amber warning the contractor will be allowed to do 5 piles where each pile must be monitored from start to formation level. Monitoring will be done at 1hour intervals.

If 10PPV is reached a red warning is given to the contractor. The contractor will be asked to stop piling at this point. The rigs will then be checked for any defects. Background vibration will be taken at this time when the rig has stopped to check calibration levels.

To return to working after a red warning the contractor will be allowed to do 5 piles where each pile must be monitored from start to formation level. Monitoring will be done at ½ hour intervals.

The Vibration Monitor book will be made available on request.  
Albeit noted there is no piling on site.

## 6.0 Noise Mitigation

Lower noise equipment:

Although recognized that the choice of piling is likely to be determined by the engineering requirements and the suitability of available equipment, piling activities should be planned where possible to reduce the overall source noise level during the works. Piling will be limited to 20 piles per rig per day between 0800 - 1700 hours weekdays, 10 piles per rig per day between 0900 to 1300 hours Saturdays.

Acoustic screens:

Screening shall be provided nearest to those properties most likely to experience high noise levels from piling. We would envisage that the screening would reduce the noise impact by 10%.

## 7.0 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 minimize vehicle noise and the need to perform reversing manoeuvres.

## 8.0 Summary

This report gives details of a noise and vibration construction management plan to be implemented by the Simply prior to and during the construction of the project.

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

Best Practicable Means (BPM) of noise control are outlined and will be applied by the contractor during construction works to minimize noise (including vibration) at neighboring 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.

