

Land off Cheadle Road, Upper Tean, Stoke-On



Through this plan, Keepmoat Homes ISO 14001:2015 certified Environmental Management System and the sites Construction Phase Plan, Keepmoat Homes and its contractors will ensure that throughout the duration of the development best practice environmental controls will be adhered to alleviating any potential issues.

i. Summary of the Project:

- ▶ Summary of the site and surrounding area (adjacent homes, schools, hospitals, and environmental features)
 - There are surrounding homes on Cheadle Road which will be facing our development.
 - There is an existing dwelling to the south of the site with additional dwellings on the east opposite the site off Cheadle Road and North off Breach Lane.
 - Closest Hospital is located in Stoke-On-Trent. Royal Stoke University Hospital – 12 miles from site.
 - As shown below there is a pharmacy and medical centre within 1 mile from site.
 - Three Schools have been identified within 1.2 miles of the site.
 - Environmental features near by include; Tean cricket ground, public open spaces shown in green below. There is a PRoW to be diverted on site and a path running on the other side of the River from our site.



- ▶ An overview of build route and phases.
 - Build routes are shown in Appendix 2.
 - Clean topsoil to be stripped and reused onsite.
 - Clean subsoil to be used onsite as part of the earth works started any further fill will be brought into site.
 - Approx – 20/25 homes to be built per year
- ▶ Number of Homes – 67 Plots
- ▶ Other site features include: (SuDS, POS, infrastructure etc)
 - POS area within flood zone area close to River Tean.
 - SuDS pond within site in the open space.
 - Retaining ground features and boundaries.
- ▶ Key environmental features being protected, created, or moved on site
 - Areas close to the river are being left as is due to their environmental benefits.
 - These include, tree and landscaping features.

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1. Keepmoat Responsibilities

As the Client, Keepmoat, is ultimately responsible for the content and implementation of this CEMP. This involves ensuring that all project staff comply with the requirements of the CEMP.

Keepmoat will comply with all elements of this CEMP and shall be responsible for:

- ▶ Developing and maintaining site specific environmental controls to implement the CEMP through the Construction Phase Plan
- ▶ Communicating the requirements of the CEMP to all relevant sub-contractors;
- ▶ Liaising with all project team members on environmental issues;
- ▶ Maintaining an up-to-date register of legislation and meeting legislative requirements;
- ▶ Maintaining a register of actions carried out; and,
- ▶ Liaison with Local Planning Authority and General Public.

Assurance

A key part of maintaining environmental standards is regular monitoring, audits, and inspections. For the entire construction phase Keepmoat will undertake the following, all including environmental checks:

- ▶ Weekly Site Manager inspections
- ▶ Monthly Contract Manager inspections
- ▶ Monthly Director EHS inspections
- ▶ Monthly BP EHS inspections
- ▶ Annual Environment, Health and Safety audits

Site Manager

Keepmoat's appointed Site Manager will be responsible for ensuring the delivery to the Client, of the environmental requirements of the contract.

Sub-Contractors

All contractors are responsible for leading the work of their particular discipline on the project.

They are responsible for ensuring that the requirements of the CEMP are communicated to and understood by all workers.

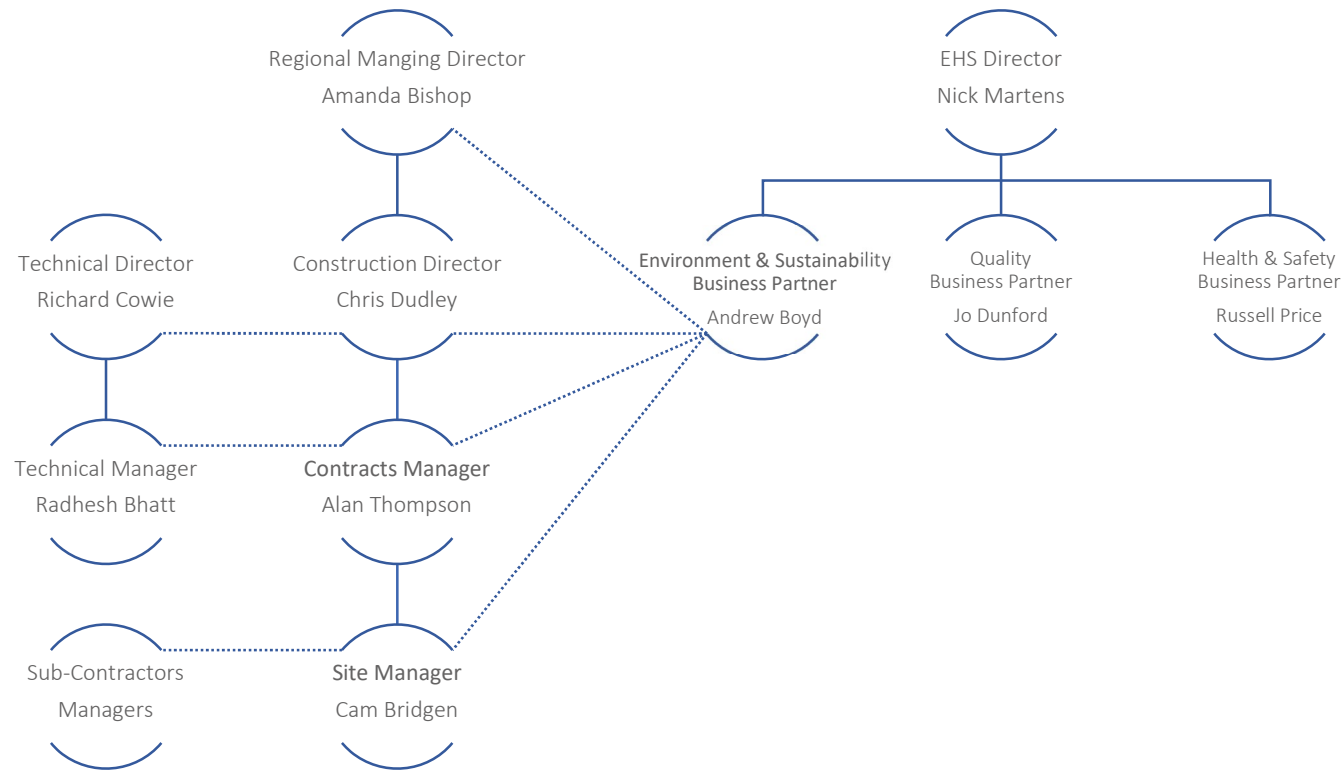
Keepmoat Homes will ensure all contractors are competent and have effective environmental controls in place as follows:

- ▶ All contractors are assessed by CHAS at the Advanced level. This includes environment and sustainability credentials and ensures only competent contractors work on site.
- ▶ Through tendering and on-boarding processes all sub-contractors are provided with and sign up to Keepmoat Trade Specification including minimum environmental standards.
- ▶ Before starting on site all contractors RAMS and environmental controls will be reviewed and accepted by the Construction Team, where a significant environmental risk exists these will be escalated to the Environment, Health, and Safety Team

1.1. Key Contacts

Name and address	Contact name	Telephone number	E-mail
Client	Keepmoat Homes		
Principal Designer	Richard Cowie	07500 296 385	richard.cowie@keepmoat.com
Designer			
Principal Contractor	Chris Dudley	07584 548 565	christopher.dudley@keepmoat.com
Keepmoat Regional Managing Director	Amanda Bishop	07500 296 385	amanda.bishop@keepmoat.com
Keepmoat Technical Director	Richard Cowie	07500 296 385	richard.cowie@keepmoat.com
Keepmoat Technical Manager	Radhesh Bhatt	07787 255 371	radhesh.bhatt@keepmoat.com
Keepmoat Construction Director	Chris Dudley	07584 548 565	christopher.dudley@keepmoat.com
Keepmoat Contract Manager	Alan Thompson	07827 311 775	alan.thompson@keepmoat.com
Keepmoat Site Manager	Cam Bridgen	07919819388	Cameron.Bridgen@Keepmoat.com
Temporary Works Engineer	TBC		
Keepmoat Regional Health & Safety Business Partner	Russell Price	07771 863 528	russell.price@keepmoat.com
Keepmoat Environmental & Sustainability Business Partner	Ben Stone	07880 099675	Ben.stone@keepmoat.com
Keepmoat Senior Environmental & Sustainability Advisor	Andrew Boyd	07717 545173	Andrew.boyd@keepmoat.com
Keepmoat Quality Business Partner	Jo Dunford	07976 607264	Jo.dunford@keepmoat.com

Management Structure for the Project



1.2. Construction Working Hours

It is proposed that the following times will constitute the normal working hours (excluding public holidays) on the construction site:

- ▶ Monday to Friday
 - 8.00a.m. – 18.00p.m.
- ▶ Saturday
 - 8.00a.m. - 13.00p.m.
- ▶ No Sunday or Bank Holiday Working

No plant and machinery will be used outside of these hours.

No deliveries or collections will be made out of these hours.

No access is available to site more than 30 minutes prior to the opening times above.

Deliveries are also to be controlled to avoid peak / rush hour and school times.

Pile driving shall not take place outside:

- ▶ Monday to Friday
 - 09:00 to 16:00
- ▶ Saturday or Sunday
 - No piling works to commence.

Concrete driven piles will be used for the foundation strategy for some plots.

- ▶ Duration
 - 4/6 weeks
- ▶ Start date – March/April 2024
- ▶ End Date - May/June 2024

These hours will be followed unless otherwise agreed in writing by the relevant planning authority.

Outside the above periods the following working is permitted:

- a) pre-planned construction works to highway infrastructure requiring possessions where first notified to the relevant planning authority and local residents;
- b) emergency works; and
- c) works which do not cause noise that is audible at the boundary of the Order limits

Any emergency works carried out must be notified to the relevant planning authority within 72 hours of their commencement.

Communication

Prior Notification -

Any communication/notification requirements to affected existing properties will be handled by the contracts/site manager onsite and technical team off site should it be prior to site start, this will be completed by post.

Complaints-

Regarding any site works should be sent directly to Contracts manager and the main office– 01827 908 800.

1.3. Construction Traffic

Good relations with people living and working in the vicinity of the site are of paramount importance to Keepmoat. Therefore, businesses and residences located within proximity to the site shall be notified of the works by the Keepmoat Construction Team, including a summary of the proposed phasing and details of the proposed operating hours two weeks in advance of starting works on site. In addition, a contact telephone number will be provided in the event of complaints from the public and a procedure adopted to respond to such complaints.

Keepmoat Homes shall provide clear and prominent signage at the main access points to the site and at other appropriate locations around the site perimeter warning that construction works are in progress and that the site is hazardous. Signs shall identify the potential hazards associated with the proposed construction works. Signs shall include emergency telephone numbers and other relevant contact details.

Construction Traffic Access

The clear establishment of an appropriate traffic access to the site is required to prevent the likelihood of accidents occurring and to minimise the disruption to the local residents and road users as far as possible.

Keepmoat has set out specific measures below which will be implemented to reduce the impact of construction traffic both on and in the wider areas surrounding the site.

- ▶ The contractor must agree the principles and routes for material haulage to and from the Site with the Local Highways Authority and Highways Agency as appropriate. The preferred routes will be the main Cheadle Road A522 and A50 for material haulage and plant.
- ▶ Routes Breach Lane will be limited to HGV's (other than off-site works to service foul drainage / services / s278 works, with the agreement of the Authority) and for Health and Safety reasons
- ▶ A Traffic Management Plan will be put in place for all s278 works, identifying protection of pedestrian routes to be maintained during the course of any potential road closures if necessary.
- ▶ Prior to closures to allow s278 works to be implemented, letters will be issued to residents affected by the closure, notifying them of the start and end date of the closure and measures to be put in place to allow pedestrian access.
- ▶ Keepmoat will operate a traffic management system across the site, which is relayed to all personnel during induction. This will include:

- Deliveries will report to the site office and all delivery drivers will sign in and out on completion of delivery.
- **Banksmen will be present during reversing operations, where operator's view is obscured.**
- Flashing beacons will be fitted to all on site vehicles and plant.
- Plant is to be fitted with traverse alarms to ensure safe manoeuvring.
- ▶ The general site speed limit across the site will be limited to **5mph**, although alternative limits may be applicable in certain areas.
- ▶ The provision of temporary signalling will be considered where vehicle access to the site is likely to cause congestion or the potential for access.
- ▶ The movement of construction vehicles will be limited to non-peak hours where possible to limit any disruption to the local highway network.
- ▶ All construction traffic entering and leaving the site will be closely controlled and HGVs making deliveries to the site or removing construction material etc, shall avoid prohibited routes.
- ▶ Vehicles will be loaded and unloaded clear of the public highway.
- ▶ Emergency escape routes will be designated prior to commencement of work.
- ▶ The site labour force will be encouraged to car-share and to use sustainable modes of transport.
- ▶ Suppliers will be provided with details of the site restrictions, rules, opening times and the avoidance of nuisance when delivering to site

Should it become apparent that at any point during the construction programme that an alternative access is required, details of this change would be submitted and agreed in writing with the Local Planning Authority prior to making these changes.

Cleanliness of the Public Highway

The construction works will involve the regular use of the local highways network by construction related vehicles. As such, Keepmoat Homes will put measures in place to minimise dust emissions and the deposition of mud and debris on the local road network through the following measures

- ▶ Wheel wash facilities will be provided when required. These will be
 - Located near to the site access points to ensure that vehicles are appropriately cleaned prior to accessing public highways.
 - However, they will not be located in close proximity to any existing water courses or surface water drains.
 - **Wheel washing position will be just off Cheadle Road, with a fair distance away from River Tean. (as per drawing 22123 - Site Plan - CEMP PLAN-3038-5000-CEMP Plan 3)**
 - The type of wheel wash will be appropriate to the types of vehicles being used on the site and the amount of mud and debris likely to be on the vehicles (e.g., rumble strip)
 - **We are to use a jet wash with a holding pit next to the wheel washing location. Any excess mud or debris will fall directly into the pit. Once full content will be safely removed via tanker.**
- ▶ Site haul roads will be regularly scraped to assist in the removal of debris and reduction of 'track-out'
- ▶ All vehicles leaving the site should be subject to a visual inspection before accessing the public highways to ensure that the level of dust/mud/debris on the vehicles has been minimised insofar as is practical.

- ▶ Keepmoat will undertake regular inspections of the adjoining highways and deploy road sweepers if mud, debris and dust is likely to be deposited on the main roads
- ▶ All road surfaces affected by site works shall be swept clean as and when required.

Vehicle Parking

The clear establishment of an appropriate construction compound and parking area is required to prevent and minimise the disruption to the local residents and road users as far as possible.

No vehicle parking will be permitted at any stage on public highways within the vicinity of the scheme. If such parking is unavoidable, a Keepmoat Parking permit will be issued for each vehicle detailing the number to call if the vehicle requires to be moved and is causing a nuisance.

The construction and visitor vehicle parking area will be positioned within the site compound to minimise the disturbance of the surrounding area. The parking area will be positioned immediately next to the access road to reduce the amount of vehicular movement on site and therefore reduce the likelihood of vehicles taking mud/debris onto the existing highway network when they leave the site. (as per drawing 22123 - Site Plan - CEMP PLAN-3038-5000-CEMP Plan 3)

A designated area will be situated within the compound for the specific loading and unloading of materials and plant. This will be the most appropriate location as the compound is in close proximity to the access road and is also the location where materials and plant will be stored. These areas are shown on drawing 22123 - Site Plan - CEMP PLAN-3038-5000-CEMP Plan 3

1.4. Temporary Site Start and Site End Arrangements

During the early stages of the development, the appointed Groundworker, in their role as Principal Contractor (PC), will have their own temporary compound and storage locations on site whilst the initial infrastructure is established. **The location of the first phase is shown on the drawing labelled - 22123 - Site Plan - CEMP PLAN-3038-5000-CEMP Plan 3.** An element of flexibility for storage and compound locations will be required during this time due to site conditions and early works phases.

Temporary compound items include: - 1) Drying Room/site office, 2) Canteen and Meeting room, 3 Storage areas and 4/5 carparking spaces. Wheel Washing facility to remain throughout.

During this time, temporary site access and egress will be agreed with the Local Authority until the roads and sewers forming the site entrance have been formed and established. We envisage this stage to cover the initial 6 months of the development before Keepmoat take over the role of PC and the final compound and storage area is completed (as per drawing 22123 - Site Plan - CEMP PLAN-3038-5000-CEMP Plan 3)

Final Compound to include:- 1) Drying Room/site office, 2) Canteen and Meeting room, Material storage area which includes offloading section, 4 storage containers, Mix mortar or silo, Site Car parking. Wheel Washing facility to remain throughout.

Towards the final stages of the development, and as space becomes restricted, the main compound will be dismantled and be replaced with smaller 'Oasis' type units. This will also dictate that the

placement of the Oasis unit, alongside the storage of materials for the final stages of the development, will predominantly use available open spaces or visitor parking bays as the best practicable means leading up to completion and subsequent exit from the site.

Temporary Site Access

Temporary site entrance is to be constructed to allow vehicles to enter and exit the site safely. Works to be completed via S184. For details please see below in Appendix 4 and plan 22032 500A S184 Access Proposals.

Diversion Works for site access and enabling.

Site access/entrance include Gas and electrical diversions. The works and locations of which are outlined with the appendices below. Included will also show the RAMs for each party completing the works. Diversions at access are done outside of the planning boundary within highways with all approvals sought. Diversion works information can be seen below in appendices.

Tree Protection and Site Hoarding

CEMP plan indicates the location of the tree protection plan which will be implemented early on to make sure all retained landscaping is protected. The site hoarding will be installed for site security along Cheadle Road. (as per drawing 22123 - Site Plan - CEMP PLAN-3038-5000-CEMP Plan 3)

2. Dust and Air Quality

If not adequately controlled, dust arising from construction activities can lead to increases in concentrations beyond the site boundary, which may affect local amenity and influence local air quality.

In order to control construction dust and prevent escape beyond the site boundary Keepmoat will develop a Dust Management Plan (DMP) prior to Keepmoat starting on site, aligned to the IAQM guidance on the assessment of dust from demolition and construction. This plan will be included in the Construction Phase Plan and be specific to the scale and type of activities on site and the surrounding sensitive receptors.

The following controls will be included as a minimum and be enhanced where necessary to reflect the scale of the site works and sensitivity of local receptors:

Communication

- ▶ Display the name and contact details of Site Manager at the site entrance
- ▶ All contractors will sign-up to the DMP.

Monitoring

- ▶ Regular inspections to monitor compliance with DMP, recorded as part of the weekly Site Manager Inspection.

Preparing and Maintaining the Site

- ▶ Effective controls to avoid site runoff of mud (see section 9)
- ▶ Removal of materials that have a potential to produce dust from site as soon as possible, unless being reused on site

- ▶ Site layout planned so that machinery and dust causing activities are located away from receptors, as far as is possible
- ▶ Ensuring an adequate water supply is available on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible.

Operations

- ▶ Only using cutting, grinding, or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g., suitable local exhaust ventilation systems.
- ▶ Minimising drop heights from loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.

Fleet, Plant and Deliveries

- ▶ Ensuring all vehicles switch off engines when stationary - no idling vehicles.
- ▶ On site speed limit of 5MPH
- ▶ Regular sweeping of haul routes
- ▶ Avoiding the use of diesel or petrol-powered generators and use mains electricity or battery powered equipment where practicable
- ▶ Where practicable, HGV's and non-road mobile machinery used on site to be of the latest EU vehicle emission standard and stage IIIA as a minimum.

Demolition

- ▶ Ensure effective water suppression is used during demolition operations.
- ▶ Any crushing operations are done so under the provisions of a Local Authority issued permit
- ▶ A Section 80 notice will be sought where applicable

Track – out

- ▶ Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport
- ▶ Planning vehicle movements and deliveries around the site avoid sensitive receptors, either through route or timing (e.g., rush hour / schools)
- ▶ Road sweeping on the public highway where track-out is identified during inspections.

3. Ecology, Biodiversity & Invasive Species

The protection and enhancement of plant and animal life is a key requirement of all Keepmoat sites. As part of the development process, all Keepmoat sites are subject to a detailed preliminary ecological survey that identifies any ecological & biodiversity features, plus any constraints associated with invasive and/or injurious species.

Following the preliminary ecological survey, the table below summarises the ecology and biodiversity features and invasive species that have been identified, alongside the management controls to be implemented:

Category	Applicable (Y/N)?	Control Measures	RAMS / Document reference
Protected Species e.g. Birds Bats Badgers Great crested newts Water voles Reptiles	N	Note – Any hedge/tree removal during nesting season will require a watching brief.	FPCR – 10300 – E- Ecological Appraisal Bat and Reptile report
Trees & Hedgerows e.g. TPO's Retained Trees & root protection measures 'No dig' construction Hedgerows	Y	Root protection measures and exclusion zones to be employed within the centre, western area closest to the river and on the boundaries in line with Keepmoat std detail and Cheshire Woodlands recommendations.	Cheshire Woodlands – 10778-AS-4
Invasive Species e.g. Japanese Knotweed Himalayan Balsam Giant Hogweed	Y – Himalayan Balsam	A localised control effort can eradicate an infestation over two to three years. Plants may re-establish from infestations located upstream of the site. Further measures outlined in the Himalayan Balsam report.	FPCR - 10300 - Himalayan Balsam Letter Report_Issue1
Protected Sites e.g. SSSI (Site of Special Scientific Interest) SPA (Special Protection Area) SAC (Special Area of Conservation) RAMSAR (Wetlands of National Importance)	N	n/a	n/a
Other	N	n/a	n/a

An environmental / ecological constraints map can be found in Appendix 1 of this CEMP.

4. Noise and Vibration

The management of site activities by Keepmoat and associated subcontractors is required to avoid causing a nuisance to sensitive receptors such as local residents / neighbours, Keepmoat Homes customers, schools, hospitals, businesses, and wildlife. This is to ensure full compliance with legislation and codes of practice, and to maintain a strong positive relationship with the local community. Nuisance can occur from, but is not limited to, noise, dust, smoke, fumes, vibration, light pollution, and odour.

In accordance with the requirements of the Control of Pollution Act 1974 (CoPA), noise and vibration will be controlled and limited so far as reasonably practicable so that sensitive receptors are protected from excessive noise and vibration arising from construction. The site will be managed to ensure that the 'Principal Contractor' will apply the principles of "best practicable means", as defined in Section 72 of the Act and following guidance as defined by 'BS5228: Code of Practice for noise and vibration control on construction and open sites - Part 1'.

The site itself is located in Upper Tean with and surrounded by open fields to the west and residential areas to the East, North and South. The nearest properties to site activities are 15m away. As part of the site works, the following general activities and equipment will be used on site as construction works are undertaken:

- ▶ **Diesel Generator for site power (To be used during site operating hours only.) – Should temporary builder supply not be available. Location is shown on CEMP plan 3 and the specification is provided within Appendix 7.**
- ▶ Bulldozer and tracked excavator for site levelling, excavations, and material shift
- ▶ Dust and track out suppression via Road sweeper (planned minimum site attendance of 3 x per week)
- ▶ Driven Piling on site using concrete driven method and restricted to 30 number of plots
- ▶ Dumper truck for the movement of materials
- ▶ HGV deliveries onto site
- ▶ Use of Stihl Saw and Nail Guns
- ▶ Use of telehandler for unloading deliveries and movement of products and materials around the site.

Piling

- ▶ **Piling will be completed in accordance with requirements of BS5228: -2:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites.**
- ▶ **All piling activities undertaken during construction of the development will be carried out under constant vibration monitoring using a suitably calibrated Seismograph. The Seismograph monitor will send trigger email/alarm should vibration exceed the pre set levels.**
- ▶ **Driven Piling on site using concrete driven and CFA method and restricted to 30 number of plots**
- ▶ **Piling phasing plan has been provided as part of Appendix 6.**
- ▶ **BS5228: -2:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites – Part 2: Vibration does provide guidance on acceptable levels and these are summarised in the table below;**
- ▶ **During such monitoring, should vibration levels exceed 9.0 mms-1 at the nearest residential property, or at any property in the vicinity identified by the Local Planning Authority, or at a location within the site equivalent to the distance from the piling**

operations to the nearest residential property, the following action level criteria for vibration should be immediately implemented –

- **First Action Level:** Vibration levels with a peak component particle velocity of 9.0 mms-1 to 10.0 mms-1 (at nearby premises).
 - **Second Action Level:** Vibration levels with a peak component particle velocity of 10.0 mms-1 and above (at nearby premises).
- ▶ The First Action Level, if exceeded, shall trigger further consideration (by/on behalf of the developer) of what activities are causing the exceedance. Where an exceedance is caused by individual driven piling activities, no more than 10 piles per piling phase shall exceed the first action level. All exceedances should be reported to the Environmental Health Department (acting for the Local Planning Authority) with a brief description including the time and causation.
- ▶ Where the piling operations on a plot exceed the Second Action Level then the piling operations at this location shall cease. However, piling operations may commence at a location further from the sensitive receptors providing this would not lead to an additional exceedance of the Second Action Level.
- ▶ Vibration monitoring could be set to trigger alerts at 10mm p/s, then if this threshold is breached then work would stop and consultation would take place with Keepmoat on a resolution moving forward. CFA as previously mentioned would be seen as less intrusive.

GUIDELINE VALUES OF VIBRATION VELOCITY (PPV). BELOW THESE VIBRATION MAGNITUDES MINOR DAMAGE IS UNLIKELY TO OCCUR (FROM BS 5228: Part 4: 1992).

Type of structure	Type of vibration	Frequency of vibration (Hz)	Peak Particle Velocity mm/s
Residential with significant defects	Continuous	0 – 10	1.25
		10 – 50	2.5
		Over 50	5
	Intermittent	0 – 10	2.5
		10 – 50	5
		Over 50	10
Residential soundly constructed in <u>good</u> repair	Continuous	0 – 10	2.5
		10 – 50	5
		Over 50	10
	Intermittent	0 – 10	5
		10 – 50	10
		Over 50	20
Industrial and commercial light structural frame	Continuous	0 – 10	5
		10 – 50	10
		Over 50	20
	Intermittent	0 – 10	10
		10 – 50	20
		Over 50	40
Industrial and commercial heavy structural frame	Continuous	0 – 10	7.5
		10 – 50	15
		Over 50	30
	Intermittent	0 – 10	15
		10 – 50	30
		Over 50	60

- ▶ Piling details of the site have been provided along with piling contractors RAMS. These outline details of the type and nature of the piling proposed – for how long, in which