Construction Management and Mitigation Plan For:

‘Cascade’,

Westgate,

Cleakheaton.

Date: January, 2023

Table of Contents

1.0 Introduction

Strata are committed to ensuring that all their developments accord to current legislation in respect of health, safety, environmental and Local Planning Authority planning policies.

Strata are extra vigilant to ensure construction is undertaken in a safe manner, not just for their construction personnel but for visitors and neighbouring occupants alike.

This Construction Management and Mitigation Plan has been provided as a guide to assist the Strata Team diminish the likelihood of harm caused to persons, property and the environment.

Whilst every effort has been made to cover all aspects to fulfil our obligations, there may be times where other legislation or policies may take precedence, Additionally, further actions over and above those referenced within the document may at times be required.

2.0 Our Statement

Strata aim to commence works on site in November 2023 with an expected build programme duration of around 5 years (subject to market conditions). The current build sequence can be seen on the submitted Production Management Plan (Dwg: BY0999-PMP-001 Rev: F).

Consideration of Others

All stakeholders of this development should be informed of intentions prior to commencement of works. This should be achieved via letter drop or other approved means.

Potential nuisance caused by deliveries, traffic and parking should be considered, and minimised, at all time.

Any agreed road or footpath diversions should be clearly signed, segregated and kept neat and tidy at all time.

The Environment

The potential environmental and ecological effects of site operations should be identified and evaluated, with appropriate action taken to minimise all forms of pollution. Every effort shall be made to reduce, reuse and recycle waste. Materials shall be obtained from sustainable sources, and local resources used where possible.

Environmental standards and targets should be documented and monitored on site.

If a temporary generator is needed for the development, it should be a quiet generator which is discretely sited away from the site boundary and general operational areas.

Spill kits shall be provided on site conveniently located within the site compound and clearly labelled to enable the prompt capture of any spills at source. The site manager is competently trained to manage the operation of dealing with site spillages.

Construction waste shall be disposed of into clearly identified skips located within compound area. Plasterboard will be disposed of in specific plasterboard skips which will allow the scrap to be returned to the manufacturer.

Locally sourced labour is preferred and van sharing or cycling to work encouraged.

Respect to our Neighbours

A Strata site should have a positive influence on the local community. The site teams should interact proactively with existing and new residents, local businesses and schools throughout the duration of the development to keep all persons with an interest in the scheme well informed to avoid surprises.

Any complaint should be logged and handled positively to achieve a satisfactory outcome for all concerned.

A photographic survey and record shall be kept of all existing roads and structures which are affected by the development for future reference.

Respect to our Fellow Site Team

Everyone on site shall maintain the positive and respectful Strata image and fully adhere to the company's safety standards of dress and behaviour.

Improper conduct, failing to follow company policy and inappropriate language shall be subject to disciplinary action. Pride in the management and appearance of the site, its temporary facilities and the surrounding area should be shown at all time by everyone.

Safe Working Environment

Strata have systems in place to ensure that construction work is carried out with care and consideration for the safety of the public as well as for those visiting and working on site.

There are no exceptions - the company Health and Safety policy and procedures shall be adhered to all times.

3.0 Site Specific Details & Procedures:

3.1 Hours of Operation

The hours of work for the site are set out below:

Monday to Friday: 7:30am - 6:30pm
Saturday: 8am - 1pm

No works will take place on Sundays or Bank Holidays unless prior written permission is obtained from the Local Planning Authority.

Working hours must be adhered to at all times. Any working hours proposed outside of the agreed times much be accepted in writing by the Local Planning Authority and all affected persons notified prior to commencement of any works.

The arrival, departure, loading and unloading of all goods vehicles, waste vehicles and other construction traffic movements must take place within the standard site working hours, unless otherwise approved by the Local Planning Authority. Should it be necessary for any construction traffic movements to occur outside of standard site working hours, these must be agreed in writing in advance with the Local Planning Authority.

3.2 Site Accommodation

The Production Welfare Unit will act as a rest space for those working on site. It will accommodate the services required to ensure those working on site can maintain positive health and wellbeing.

The Production Welfare Unit will shelter those working on site from wind and rain. It will act as a rest space for those on site, providing an adequate number of tables, seating with backs, a means for heating water for drinks and for warming up food alongside being adequately heated. These rest areas are not to be used to store plant, equipment or materials.

Toilet facilities will be provided within the Production Welfare zone, which are fully flushing and supported by running water. These toilets will be connected to mains water and drainage system. The availability of these services will be dependent on the Local Water Authority and their timescale for service provision. A temporary/portable toilet facility will be provided prior to this water connection and following the disconnection towards to end of the construction process.

Smoking will be prohibited within the Production Welfare zone, alongside upon the construction site itself.

3.3 Storage

Safe and efficient storage depends on good co-operation and co-ordination between all involved in the construction of the site - including, client, contractors, suppliers and the construction trades.

Materials

The site manager will be responsible for ensuring that all materials are stored safely and pose no danger to human and environmental health.

The Materials Store must be kept tidy at all times and be arranged as instructed and set out by the construction management team.

The Materials Store will be monitored by the Site Manager who will document all materials in storage.

Any material waste should be stored within the Materials Store and subsequently removed from site.

Tools

All tools and equipment when stored on site, must be stored within the Materials Store.

Those utilising equipment and tools on site, will have full understanding of how tools and equipment is expected to be stored. The construction management team will set out how tools are to be arranged within the store; all tools must be stacked carefully, and such storage should not pose any risk to the health and safety of anyone entering this storage unit.

Any electrical tools must be stored within the Materials Store due to this being a dry place. They should not be stacked carelessly, or with heavy objects, they should be placed away from any items that could impose damage to the casing or leads.

When items need to be stored in publicly accessible areas, steps must be taken to minimise the potential risks to members of the public, including children. The use of heras type fencing would be considered suitable in these situations.

Personal Protective Equipment (PPE) should be adequately stored at all times to prevent it from loss, damage or deterioration.

Storage of Potentially Polluting Materials

Where liquids are being stored, there is always a potential for leakage. Storage bowsers will therefore be utilised to minimise the risk for any leakage. Storage bowsers must be double skinned and be capable of holding 110% of the total storage capacity. The contents must not be allowed to run or drain onto the ground. The oil tank inside the bund must be completely contained, including all pipes. The bowsers are to be locked when not in use. A spillage kit is to be positioned adjacent to the bowser at all times. The bowser must not be positioned any closer than 10m away from a watercourse / controlled waters.

Storage Fuel Bowsers will be located within the Materials Store and will be stored at under 10% capacity.

3.4 Construction Traffic

Routing Plan & Temporary Means of Access

Vehicles will follow prearranged routes around the site, temporary access to the site for all construction vehicles will be provided via one access point from Westgate.

Vehicles will also follow prearranged routes around the site; this will be a circulatory route to reduce reversing. Details of the vehicle construction traffic route will be sent with all orders to suppliers and contractors to ensure all those driving onto site are aware of the route that must be adhered to.

One traffic routing arrangement is proposed for all HGV's accessing and leaving the site. This traffic routing arrangement will be followed throughout the course of construction and is identified below.

When entering or leaving the site, all HGV traffic will be instructed to follow a direct route via Westgate and the A638, towards the M62 junction.

HGV traffic will avoid smaller residential streets and within sensitive periods such as school start and finish times, in order to ensure no detrimental or harmful impact is placed upon surrounding dwellings or no damage to existing roads.

The Site Manager will be responsible for ensuring that all those visiting and leaving the site have knowledge of this routing arrangement.

The Commercial Department will ensure that these traffic routing arrangements are explicitly stated when any orders placed.

3.5 Goods Vehicles

Goods Vehicles

The maximum height of the goods vehicle to be used is 3.4m. The weight of this goods vehicle will be approximately 17,000kg.

Parking and Manoeuvring

Goods vehicles will not be permitted to park on any surrounding streets. Parking must only take place within the Production Car Park, associated drivers will be instructed with this information prior to delivery.

Where appropriate, deliveries shall be arranged on a just-in-time basis in order to prevent vehicles queuing outside the site onto Westgate.

Vehicle manoeuvring shall be planned to ensure that lorries do not arrive or depart outside standard working hours. No daytime or night-time parking of lorries will be permitted outside agreed areas.

Loading and Unloading

The loading and unloading of goods vehicles must only take place within the remits of the site.

The generation of dust whilst loading or unloading materials must be controlled by using chutes, bagging, sheeting and damping down. Where vehicles are leaving unpaved sites, adequate wheel washing arrangements shall be employed to prevent contamination of the highway. Loads containing waste material leaving site shall be sheeted before travelling on the highway.

The loading and unloading of all goods vehicles must take place within the standard working hours. All deliveries of goods to the site and removal of waste shall, where possible, be carried out within the approved site working hours. Any early morning or evening deliveries must have approval from the Local Planning Authority. This is to ensure that neighbouring residents will be not be disrupted and will be minimally impacted by site construction. All unloading and loading of materials will be monitored through a booking in system by the Site Manager.

Signage

The site will also include directional signage throughout the development. This is to ensure construction vehicle drivers are aware of the routing arrangements to the site & within the site.

Signage will be included for pedestrian and construction vehicle routes, parking, waiting areas, loading & storage areas. It will also include the site's speed limits.

Contact details for the Site Manager will be available on the board displayed outside the Production Hub. The Site Manager has not yet been allocated for the site. If resident's wish to contact Strata, please email enquiries@strata.co.uk.

3.6 Groundwater Protection

The risks posed to groundwater during the construction phase of the development have been assessed, with necessary measures proposed.

The implementation of mitigation measures designed to protect groundwater are identified below:

- To carry out regular inspections of all discharge points and associated pipework, drainage systems, collection ditches, lagoons, oil separator (and drip-trays) and watercourses to check that these are in good order.
- Any fuels and chemicals must be utilised away from all drains and watercourses, and where appropriate, bunds and drip trays provided.
- Drip trays must be used when refuelling the mobile plant.
- Any refuelling areas must be isolated away from surface water drains.
- All drains must be protected and covered.
- Care must be taken when installing drainage to avoid cross contamination.
- The site manager must ensure that correct connections are being made with either foul sewers, surface water drains or combined systems.

Discharge of Water

When water is discharged on site, the appropriate consents for this disposal will be checked over, and all associated personnel will be made aware of the quantity and quality of water that can be discharged. Water will be treated effectively before disposal where necessary.

There will be regular checks for any visible signs or smells of pollution in watercourses at or near the site. If a settlement tank is being used, the site manager will carry out daily checks to ensure it is in full working order.

In order to ensure that any surface water associated with the development does not cause any detrimental harm to the surrounding area, all mitigation measures will be installed in line with the RSK's Surface Water Management Plan, (Ref: 302574). Surface Water will discharge in the Blacup Beck via surface runoff. Following this construction of attenuation tank S24, surface water sewers will be discharged through a hydrobrake into the Blacup Beck.

Spillage Response

The site will be regularly inspected for spillages. Emergency procedures will be in place to ensure any spillages are dealt with immediately and accordingly. In all instances the Strata Emergency Incident Response Procedure should be used: Stop, Contain, Notify.

Spill kits will be available (e.g. oil only, chemical or general use) and adequately stocked. Any spillages will be cleaned using the agreed wet handling methods.

3.7 Mud & Debris Prevention

In order to prevent mud and debris being carried onto the highway the Site Managers will carry out regular inspections of the surrounding roads to ensure that they are kept clean. These inspections will be recorded and kept in the site office.

A regular regime of road cleaning using a contracted road sweep will be put in place before work commences on site. During the winter months this will occur daily as and when required. In summer this will occur every two weeks in good weather. Where on-site operations require or when weather is inclement, a wheel wash will be used for all vehicles as soon as practicable. This is dependent on the Local Water Authority and their timescale for service provision.

All drivers of vehicles leaving site should ensure that their vehicles wheels are clean. A jet wash will be provided to enable wheel washing. Any debris or mud carried on to Westgate, should be swept clear immediately. The Project Manager will be responsible for enforcing that all vehicles leaving the site are clean.

3.8 Dust Management

Dust disturbs neighbouring residents. For example, annoyance is caused when residents have to re-clean washing that has been hanging out and when they have to wash cars, curtains and windows. Windblown dust can be unsightly and impactful on those living within the surrounding area. In exceptional circumstances, dust can affect health – e.g. asthma can be exacerbated by exposure to respirable dust.

Dust is generally considered to be any airborne solid matter up to about 2 mm in size. Particle sizes can vary considerably, depending on their origin, and the smallest particles can be breathed in. Some dust, such as limestone dust, is chemically active.

Any dust arising from activities on the site must be minimised. The effects of particles on human health are a matter of growing concern. This applies especially to the size fraction

below 10m which are commonly known as PM10 and a range of health effects including respiratory, cardiovascular problems and increased mortality.

Local Authorities are now required to assess local air pollution levels including particulates and have specific duties where required national standards are not expected to be met. There is evidence that construction site activities may be a significant local source of particulate pollution, affecting the local surroundings and its habitants as well as those working on the site.

Local Authorities also have specific duties and responsibilities regarding dust that causes a statutory nuisance under the provisions of the Environmental Protection Act 1990.

Construction site managers are made aware of the potential health effects of dust particulates and ensure that basic remedial action is taken to limit particle pollution. Any dust arising from activities on the site must be minimised by a suitable method e.g. damping or enclosure. Dusty materials must be covered or damped down when stored on site.

Further to this, no burning of waste materials shall be carried out on site; all waste materials must be disposed of at a suitable waste disposal site again to prevent a statutory nuisance being caused.

The importance of dust control is recognised especially in respect of any major earthmoving work, on site crushing/stockpiling and vehicle loading or movement over unsurfaced areas.

'Construction Dust' is a general term describing the range of dusts that may be encountered on a building site. The three main types are:

1. Silica Dust – created when working on concrete, mortar and sandstone
2. Wood Dust – created when working on softwood, hardwood and other wood-based products such as plywood and MDF
3. Lower Toxicity Dusts – created when working on low silica content materials such as gypsum (in plasterboard), limestone, marble and dolomite

Prolonged, long term exposure to these dusts can lead to health-related issues such as lung cancer, silicosis, chronic obstructive pulmonary disease & asthma

With good management, dust from construction is rarely a recurrent or severe problem beyond 100m from the site, although in very dry and windy weather, and during particular operations, occasional problems can occur at greater distances.

Effective dust control in these circumstances is a matter of priority to the site management

team.

There is no requirement for major costs on plant, but simple, practical and continuous attention to routine site management procedures is required.

Control Procedures may include, but are not limited to, the following:

- Limitation of the area(s) of working for the construction phase so those vehicles are confined within an area that can be subjected to appropriate dust control.
- Vehicles, where possible, will be limited to the temporary roads to be constructed from adjacent strata homes site.
- Where possible stockpiles of dusty material should be located to provide the optimum practical buffer distances to off-site properties. The stockpiles will be positioned to minimize the effect on existing surrounding dwellings.
- In extremely dry conditions, stockpiles will be sprayed with sufficient water to remove the dust hazard without creating unnecessary run offs.
- Spraying of delineated areas, such as rear gardens, temporary roads etc., with water supplied (subject to appropriate licensing) as and when conditions dictate.
- Where possible, areas of paving or other hard standings should be maintained. All such areas should be kept wet using appropriate application systems, e.g. bowsers, and/or cleaned when necessary.
- Wheel/body washing facilities will be provided in the form a jet wash system situated at the site access/egress point as soon as is practicable to ensure mud is not carried out onto the existing highway.
- Vehicles carrying dust-forming material either on or off the site are to be sheeted, if there is any risk of dust blow.
- Where excessive dust is created from site operations such as cutting, then either water suppression systems will be employed or a designated cutting area that is screened and protected will be introduced.
- If complaints arise or incidents of dust deposition occur, these will be investigated immediately, and necessary action taken. A complaints log will be kept and maintained by the site management team
- Letter drops will be carried out to all residents and businesses; this will include details of working hours, measure taken to protect their amenity and contact telephone numbers for all enquiries.
- In the event of a complaint or concern is raised, an immediate review will be completed by the site manager to remove the problem wherever possible or minimise the issue. The relevant parties will be notified of outcomes.
- Road sweepers will be regularly in use and the roads monitored for cleanliness.
- There will be no burning of waste on site. All waste will be disposed of in skips.

3.9 Noise Management

In order to ensure that any noise associated with the development does not cause detriment to amenity or nuisance (especially those living and working in the vicinity), specific measure will be put in place.

Contractors are expected to use the best practical means to minimise noise on site. They are expected to consult the useful guidance detailed in BS5228 2009: 'Noise and Vibration Control on Construction Sites' Parts. However, it should be noted that this is only a guide and does not prejudice any requirements which may be made by the Council:

- Hoods on vehicles and machinery to be kept closed.
- Screening between the source and a receiver of noise to be considered where noise is likely to be emitted for prolonged periods. (This is generally only feasible to apply to things which are static such as a generator.)
- The higher a screen the more effective it is. A screen that is placed near to either the noise source or the receptor is more effective than one, placed halfway between the two.
- Use only plant conforming with relevant standards and directives on emissions.
- Hoods and doors on compressors and cranes etc should not only be closed but also be tightly fitting and well-sealed
- Electrically powered plant is quieter than diesel- or petrol-driven plant.
- Operate plant properly so that it does not cause excessive noise.
- Shut down plant when it is not in use.
- Maintain plant properly - adequate lubrication to reduce squeaks and the tightening of loose nuts and bolts to minimise rattles are part of routine maintenance.
- Ensure that audible warning systems (including reversing alarms) are switched to the minimum setting required by the Health and Safety Executive. Consider the use of alternative systems (e.g. cab-mounted CCTV) where appropriate. Traffic routes that avoid reversing on site will minimise the impact.
- Wherever possible fixed noise sources should be sited away from noise sensitive areas such as nearby dwellings
- Scaffold erection or dismantling can cause disturbance to site neighbours. All works therefore shall be undertaken with due consideration, in particular when working adjacent to neighbouring properties.
- Audits of site activities should be done at regular and frequent intervals during the construction programme to check that noise mitigation is being undertaken. These audits will be carried out every four to six months and this period will be re-assessed every six months and increased or reduced as necessary

It is envisaged that the following mechanical equipment* will be used at some point during the construction phase of the project:

- 20t excavator
- 13t excavator
- Forklift
- 6t dumpers

*please note, this is not an exhaustive list.

Delivery Vehicles for:

- Plant detailed above
- Removal of waste
- Concrete (as and when required)
- Bricks/ Blocks (as and when required)
- Timber (as and when required)
- Roof Tiles (as and when required)
- Plasterboard (as and when required)
- Contractor Personnel Vehicles (Daily)

3.10 Waste Management

The process of waste management during the construction phase of the development have been assessed, with necessary measures proposed.

Principles of the Waste Hierarchy will be applied to all wastes generated onsite, with reuse options prioritised. Outstanding wastes will be segregated on site into the following streams:

- Inert
- Timber
- Plaster
- Mixed Compactable Waste

Working alongside one of our approved waste management contractors, all waste will be removed from site and taken directly for recycling or to an offsite waste transfer station where waste will undergo further segregation and processing to remove recyclable material ensuring that where possible, construction waste is diverted from landfill. Regular waste audits will be conducted by Strata and the appointed waste contractor to track performance and ensure compliance against Strata practices.

3.11 Protocol for Construction Pollution

Within this document various protocols have been identified in order to deal with any, noise, water and air pollution that may occur during the course of construction.

Strata aims to ensure that the construction process minimally impacts neighbouring residents and the surrounding environment.

Subsequently with regards to water pollution, procedures will be put into placed as discussed in Section '3.5 Ground Water Protection'. Thus, water courses will be regularly monitored by the site manager. With emergency procedures being put into place ensure any spillages are dealt with immediately and accordingly.

In terms of noise pollution, as discussed in Section '3.8 Noise Management' contractors are expected to use the best practical means to minimise noise on site. They are expected to consult the useful guidance detailed in BS5228 2009: 'Noise and Vibration Control on Construction Sites' Parts.

Further to this as discussed in Section '3.7 Dust Management', construction site managers are made aware of the potential health effects of dust particulates and ensure that basic remedial action is taken to limit particulate pollution. As a result, any dust arising from activities on the site will subsequently be pre-empted and minimised via suitable and appropriate actions.

3.12 Construction Methods

Methods of Piling

The foundation solution for the whole site is a driven pile as a result of the ground investigation report. Whilst piling can cause adverse noise and vibration issues, the development requires this solution.

In order to mitigate the duration of piling on site, it is anticipated that 2 piling visits will be undertaken per annum - with the duration of each visit lasting around 4-6 weeks. This will enable approximately half the number of homes expected to be completed, to be piled. Piling is to take place in batches which will follow the route of the build programme as identified upon the submitted Production Management Plan (Dwg: BY0999-PMP-001 Rev: F).

There are some areas on site which will be more sensitive than others, due to being closer to sensitive receptors. Residents of existing dwellings will be notified two weeks before any planned piling activity and be provided with site management contact details should issues arise.

Through the employment of a specialised piling contractor, professional standards will be adhered to and where required vibration monitoring equipment will be deployed at the boundary of potential sensitive receptors. This will allow levels of ground vibration to be assessed and enable any extreme vibration from piling activity to be identified. Should extreme levels of vibration occur, activity on site will be seized and the reasons as to why this occurrence has taken place will be explored; seeking to implement measures to mitigate such activity prior to continuing.

With regards to noise associated with the proposed piling works; this is to be mitigated by using a sound deadening jacket/shroud. Routine monitoring of noise levels at the perimeter

of the site will be undertaken. Where possible piling will take place at locations near to sensitive receptors across the middle of the day.

3.13 Other Measures

Strata will monitor the local area of the site for future developments which are to come forward and will liaise with them accordingly.