Division	Housing UK			
Client	Engie			
Project/Task	Installation of Pre-Cast Concrete Ground Beams			
Job No. 195518		**Date TBC**		
VE Contacts	Contracts Engineer	Rowan Senior	**Tel no.**	07510 500105
	Foreman / Supervisor	TBC	**Tel no.**	
	HSQE Dept	VE Head Office	**Tel no.**	01773 304065

Revision Status

Initial	Name	Position	Date	Signature
Prepared by	Rowan Senior	(VE) Contracts Engineer	15-05-20	
Reviewed by	Shabir Ali	(VE) Contracts Supervisor	15-05-20	
Client Acknowledgement by				

Rev no.	Revised by	Date	Amendments

EMERGENCY CONTACT DETAILS	
Steve Bursnell- Operations Director	07720 200137
Daniel Wilson- Contracts Manager	07834 800611
Rowan Senior- Contracts Engineer	07510 500105
Site location is: Herbert Road, Newport, NP19 7BH Hospital location is: Royal Gwent Hospital, Cardiff Rd, Newport NP20 2UB	

BRIEFING SHEET

By signing this method statement, I confirm that I have been briefed on its contents and understand my personal responsibilities to work in accordance with the RAMS and to **not undertake anything which adversely affects my own safety, or that of others**

I understand that I must stop work and notify my Line Manager if I cannot complete my work in accordance with this method statement.

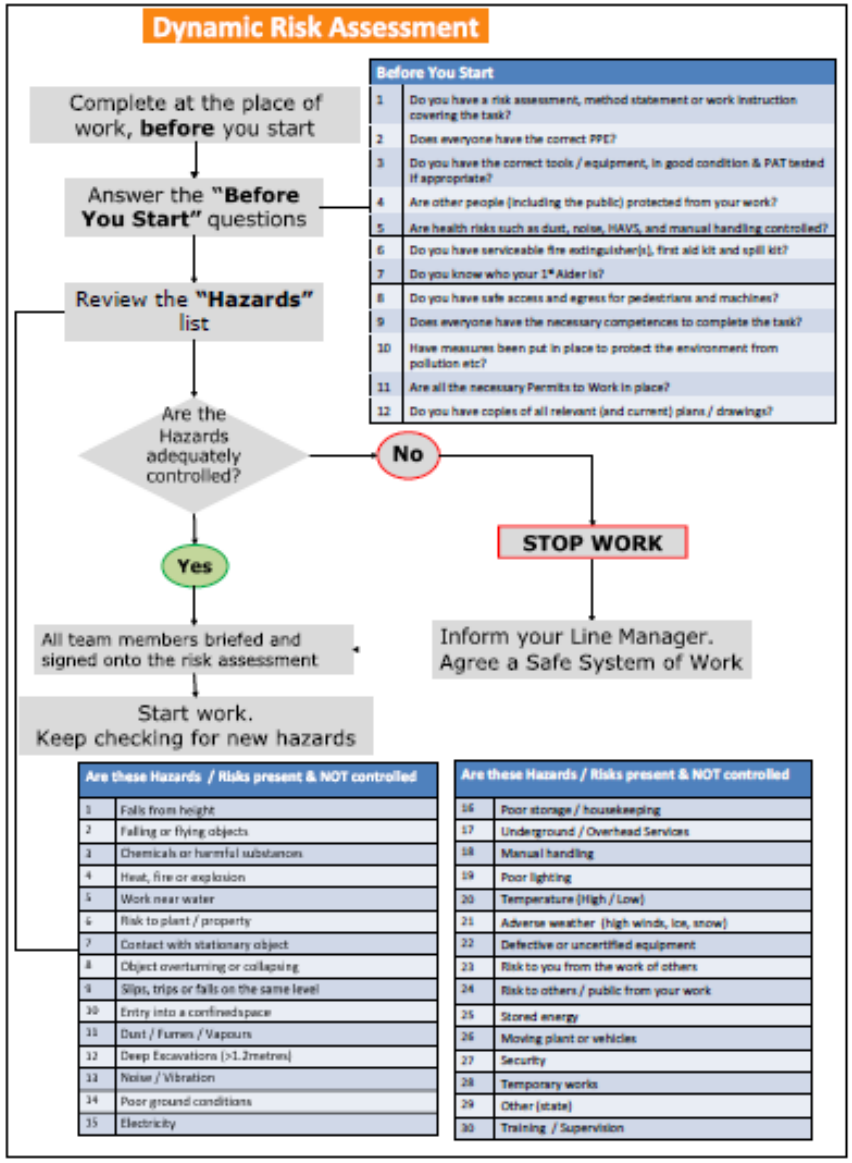
I understand that I have a responsibility to challenge & report unsafe acts and conditions; copies of any reports shall be passed to the site manager and to Van Elle's H&S Dept.

All accidents must be reported directly to the Van Elle HSQE Dept. on **01773 30 40 65**

I understand that mp3 players, or other personal entertainment items must not be used in operational areas. Telephone calls must only be taken from a position of safety. Machines must be brought to a halt before calls are taken.

A Van Elle Permit to Work must be completed fully and signed off	Date	Name	Signature	Job Role	First Aider?
You must wear your PPE in accordance with the site rules and this RAMS. PPE must be maintained in a reasonable condition					
You must not attempt to start work if you are in possession of, under the influence of alcohol or illegal substances. You may be tested at any time under the Van Elle Policy					
Your work must stop and be reviewed if it is putting members of the public or other contractors at risk.					
Make sure other contractors are excluded from your work area.					
You must only carry out work for which you are trained and competent					
All plant & vehicles movements must have a Banksman in attendance					
Edge protection or fall arrest must be in place for work at height					
All plant & equipment must be inspected and maintained in good working order					
Use the correct tools & equipment for the task at hand. Do Not Improvise					
All work areas must be kept clean & tidy. All debris to be placed in the correct waste skip.					

Amendments to RAMS



List below any changes in site specific hazards that have been introduced

What additional controls have been implemented to address the risks?

Briefed By:

Name	Signature	Date

Scope of Works

Excavate around piles to a maximum of 500mm
Crop piles using Power/CFA Cropper
Fix Cages and Shuttering
Form Insitu Pile Caps with C50 class DC-1 Concrete
Lift precast ground beams with Crane (size of crane as specified in Lift Plan)
Tension precast ground beams
Concrete recess points

Method of work and control measures

Prior to work commencing

Member of Contracts shall ensure:

- A visit to site is carried out prior to work commencing & a copy of visit report to be provided to site.
  - Site specific hazards (eg underground services, overhead services & contamination etc) are identified and suitable control measures identified.
  - Engineer to qualify platform requirements (concrete boom pump and crane load bearings) with the client/main contractor.
- That an Appointed Person is given sufficient time to develop a lift plan
- That crew deployed to site have necessary competencies

Foreman / Supervisor	SSSTS / NVQ3
Crane Supervisor	CPCS Crane Supervisor (Day of lift only)
Banksman / Slinger	CPCS Slinger Signaller / NPORS (Day of lift only)
Concrete Pump Operative	CPA approved competence
Excavator Driver	CPCS / NPORS Excavator (180° or 360° depending on site)
Grout Plant Operator	Internal training

The Main Contractor / Client will be responsible for

- In accordance with HSE guidance HSG47, the location, identification and marking of underground services within the working area, and taking the necessary precautions to protect and avoid them. (eg isolation, diversion, shrouding etc)
- Advising on known or likely ground contamination & any control measures in place.
- Brief all staff on site specific COVID-19 control measures.
- Signing the Van Elle Permit to Work (SET16) to confirm the above has been completed.

The Foreman shall:

- Walk the work area & confirm that all hazards are adequately controlled prior to work commencing.
- Ensure COVID-19 control measures are followed by all staff.
- Ensure that client/main contractor has provided a working platform that is adequately constructed and maintained so as to provide a stable base for the mobile crane.
- Check that the client / main contractor has carried out checks / protection for underground services and sign off CON8 Contract Notes
- Ensure that sufficient PPE provisions are available & that it is worn in accordance with Van Elle & Main Contractor requirements. Mandatory PPE is safety helmet, safety footwear, light eye protection and & hi-viz clothing. Other PPE in accordance with risk assessment
- Ensure that daily inspections are carried out on all plant and equipment & a record of inspection completed on CON15. Any problems/defects must be reported to the Contracts Manager immediately. All machinery shall only be operated by trained & competent persons and have current thorough examination certificate.

- Ensure that the Permit to Work (SET16) & Lift Plan (for all crane lifts) are signed prior to work commencing, and thereafter on a WEEKLY basis.

Mobilisation & site set up.

All vehicles will be supervised by a Banksman and enter site as per the designated route agreed at Pre-Start Meeting.

The foreman shall

- Assess the area designated for unloading & storage, taking into consideration surrounding buildings, other contractors, pedestrians, traffic routes etc.
- The foreman will set up an exclusion zone to prevent third parties entering our work area. Pedestrian barriers may be needed
- Make sure that all loads are checked for security before unloading commences. In the event of a load having moved or become unstable in some way during transport, unloading will not continue until a safe means of unloading has been determined. Unstable loads should not be allowed to tip or fall to the ground unless there are no other safe options & only after advice has been sought from the Line Manager
- Agree a sequence of unloading with the delivery driver. The Banksman will take control of the unloading process & directing the HIAB / crane operator.
- Any provisions for unloading that are already on site will be used to safeguard work at height. Access to trailers will be from a secured or footed ladder.
- Where trailer edge protection or airbags are not provided for unloading the delivery, the Foreman is not to accept the delivery and report the fact to the Divisional Director or the Contracts Manager as soon as possible.
- Avoid unloading excavators on inclines. The Banksman will position himself forward of the loading process so that all plant movements and the operator are clearly visible. NO ONE must be allowed to stand at the side or behind the vehicle being unloaded. All instructions to the plant operator must come from a single Banksman.
- The crew shall maintain good housekeeping at all times to reduce slip/trip hazards.

Pile Cropping

Piles will be cropped with

Hydraulic pile cropper securely attached to an excavator. Excavator operators will be trained & competent, holding the relevant CPCS card. Cropping will be overseen by a Banksman ensuring that third parties are kept clear.

Pneumatic breaker & abrasive wheels. These will be maintained in good condition and only used by authorised and trained persons. The operator will wear hearing protection, goggles or full face visor, long sleeve clothing & gloves. Only vibration-reduced breakers/demo picks that have a vibration magnitude of less than 6.5m/s2 will be used. These permit “finger on trigger times” of 1hour 10minutes to reach the action value.

Exposure to Silica dust will be controlled by using water suppression or extractor systems. Close fitting dust masks (minimum FFP3 standard) will be worn at all times.

Exposure to Hand Arm vibration during cutting/breaking will be reduced by the use of Diamond Tipped Blades, reducing the amount of time the tool is used in one go; doing other jobs & sharing the workload.

All exposed re-bar will be covered with mushroom caps or similar

Excavations

Where the working area is at a depth of 1.2 metres or more the Foreman shall stop work and contact the Divisional Director or Contract Manager for guidance and authority to continue.

The Contract Manager is responsible for planning the work to ensure that adequate resources are available to provide trench support where required and support for any services present. Any temporary works must be designed by a competent person. [Design details of trench supports to be included as appendix]

Where temporary works are required at a depth of 1.2 metres or more, the Foreman shall ensure that an inspection of the excavation takes place before each shift and record on SET20 anything that may have affected the stability of the excavation e.g., adverse weather conditions. (Minimum 1 record per week irrespective of condition of excavation)

Fencing, stop blocks or barriers will be provided where there is a risk of site traffic, other site personnel and the general public falling into excavations. Sufficient fixed ladders will be placed in order to provide access and egress in the event of a collapse or another hazard.

Only specifically trained & competent operators to be driving the machine. (E.g. CPCS) Attaching & detaching of quick hitch devices must always follow the manufacturer's instructions. Working below excavator buckets is prohibited

The Foreman will ensure that persons cannot be struck by stored materials or spoil falling from the side of excavations by keeping such hazards at least 1.5m away from the side of the excavation.

Concrete pour with boom pump

Ensure that sufficient space has been provided for the machines stabilisers to be fully deployed,

Access routes for concrete Lorries will be agreed with the Main Contractor before work commences. All vehicles reversing will have a banksman in attendance

Van Elle Foreman will discuss with the Concrete Pump Operator (CPO) the task to be completed and the position of the machine taking into consideration the ground conditions, overhead services or obstructions, the distance to the most remote point of the concrete pour, suitable access for the concrete delivery lorries, the working position of the CPO.

CPO will set up the concrete pump in accordance with the manufacturer's instructions on firm level ground. All stabilisers must be fully deployed in accordance with the manufacturer's instructions; where appropriate, soleplates should be used under the stabiliser base plates to spread the loading from the machine.

All persons must be clear of the boom as it is unfolded/ folded.

Until concrete is flowing smoothly out of the end of the delivery hose, or when a blockage occurs in the boom pipeline, all personnel should remain clear of the delivery hose and the placing boom.

Operatives will wear impervious gloves / gauntlets, eye protection, Hi-Viz clothing and overalls / waterproof clothing.

The person directing the flexible placing hose of the CPO should hold it loosely at arm's length, directing the pump operator to move the boom to the required position. During boom movements, the flexible delivery hose may swing freely - it is important that all persons remain at a safe distance during these movements;

If the concrete pump has to be left unattended, the operation of the boom and pump must be isolated.

The concrete pump and its pipeline will be cleaned out by the CPO into a washout area specified by the main contractor

Blockages During a Pour

If a blockage occurs during the pour, the CPO will stop pumping and instruct personnel to move to a safe position before attempting to remove the blockage. Van Elle personnel will not become involved in the process of removing blockages.

If the CPO needs to open the delivery pipeline to clear a blockage, he must first release the pressure inside the pipeline as much as possible, e.g. by reversing the pumping action. The shall be lowered to ground level clear of personnel. The pipeline must be treated as being pressurised at all times. Appropriate and adequate eye protection must be worn when opening the pipeline.

Once a blockage has been cleared, all personnel to stand the full length away from the hose until concrete is flowing freely

Lifting & placing beams

A separate lift plan will be completed by an Appointed Person and the site prepared in accordance with that plan.

The client will provide safe access, lift positions and a safe lifting platform, to provide adequate support for the crane and lifting operations in accordance with the lift plan. The foreman is to ensure that they are fully conversant with all provisions made by the client or their representative.

Network Rail emergency procedures to be briefed by client/Network Rail representative prior to lifting, if required.

All control measures must be followed at all times to ensure the safety of the Network Rail infrastructure, which runs adjacent to the site boundary.

VE Foreman to brief the crane operator and check that the crane, lifting accessories have in-date certification before use.

Tensioning of beams

An exclusion zone will be set up and other contractors warned of the risks. No one must be allowed to enter these areas. Where beams are not in an excavation, other protective measures such as Heras type fencing, boarding or spoil which deflects materials into the ground will be used as protection.

All Anchors are to be individually checked, and all other equipment to be checked prior to use. Ensure that Jawsets are securely and evenly positioned on tendon prior to tensioning.

Operatives will stand clear of the ends during tensioning. The foreman will check the condition of beams and anchor plates throughout the tensioning process.

Tension will be evenly distributed throughout the process.

Should the drilling of beams be required using a hammer drill the operators are to be aware of the safe use of the drill, the vibration risks and relevant trigger times.

Standard PPE will be worn with a correctly fitted FFP 3 face mask and ear defenders. The operator is to ensure that persons in close proximity are aware and wearing ear defenders.

De-tensioning with tendon cut

Set up an exclusion zone around the area paying particular attention to the beam ends being worked on. Ensure that contractors in the local area are aware of the hazards from your de-tensioning process. Check the area for housekeeping and remove all flammables.

When the beam being de-tensioned is not in an excavation other protective measures such as Heras type fencing, boarding or spoil which deflects materials into the ground will be used as protection.

Set up and check all Arc-air cutting equipment for safety and serviceability. At least 1 no serviceable 2kg dry powder extinguisher to be at hand.

As required install a screen to protect others from the intense light of the cutting process. Check and put on PPE to include standard PPE plus brazing goggles, full face visor, welding gauntlets, FFP3 face mask and flame resistant overalls.

Clear the local area of debris and tripping hazards. Use a fresh cutting rod for each cut and stand to the side of the beam whilst cutting the tendon free.

De-tensioning with tendon not cut

Set up an exclusion zone around the area paying particular attention to the beam ends being worked on. Ensure the local area is clear of debris and trip hazards. Standard PPE is to be worn by operatives.

Operatives are to stand clear of the beam ends during de-tensioning. Set up an exclusion zone around the area paying particular attention to the beam ends being worked on. Ensure that contractors in the local area are aware of the hazards from your de-tensioning process.

Check the equipment for safety and serviceability. Assemble the equipment ready to de-tension the beam. Ensure the de-tensioning block is set in the correct position with free access to the tendon through the centre.

Tension the tendon so that approximately 40mm of the jaws are visible, then using a pry bar release the clip from the jaws allowing them to fall free through the block. Release the pressure on the tendon.

Security

Foreman will make sure that adequate measures are taken to prevent the theft or unauthorised use of equipment/materials. This will include locking away all tools in the van or lock up, removing keys from plant & equipment where fitted, when not in use and left unattended & using cab guards if fitted.

Leaving site

The work area shall be left in a clean & tidy manner

The Foreman will make sure that the rig is configured for transport in accordance with the manufacturer's instructions, making sure all securing bolts & pins are correctly fitted and that the rig is safe to transport.

All excessive spoil must be cleaned off the rig, augers and associated plant.

The Foreman shall make sure his Foreman's Completion Form is signed off by the main contractor before leaving site.

Communication and liaison

(Other contractors, home owners, neighbours, Local Authority, Highways Authority, Statutory Bodies)

Van Elle site operations will be under the full-time supervision of a competent and experienced Foreman who has completed Supervisor Training (NVQ3 / SSSTS). The Site Foreman for this project will be identified in due course upon specific request.

The Foreman will be responsible for daily routine operation; preparation and submission of all daily records; receiving and acting upon formal site instructions; and reporting site conditions which may require variations to this method statement.

The Foreman will report directly to the Contracts Manager / Director on a regular routine basis or on specific instances when necessary.

The Divisional Director responsible for this project is Peter Handley

Site safety tours are carried out at regular intervals by our Safety Dept and Contract Management personnel

Emergency plans

(Contact phone number, fire plans, accident/injury plan, defect/sub-standard condition reporting.

Main contractor will induct all site operatives into the site specific emergency arrangements.

Van Elle crews are equipped with a number of 2kg dry powder extinguishers and first aid provisions to complement the main contractor's arrangements.

Emergency First Aid & Fire Awareness training has been completed by the crew.

Spill kits will be provided and our crews instructed in their use.

All accidents & near misses must be reported directly to the Van **Elle HSQE Dept. on 01773 304065** and the Main contractors site manager

NP19 7BH

Newport

Take Morgan St and Turner St to Caerleon Rd/B4596

2 min (0.3 mi)

Head south on Morgan St

453 ft

Slight right towards Collier St

217 ft

Turn right onto Collier St

161 ft

Turn left onto Turner St

0.2 mi

Continue on B4596. Take A4042 to Granville St

5 min (1.0 mi)

Turn right onto Caerleon Rd/B4596

Continue to follow B4596

0.5 mi

At the roundabout, take the 1st exit onto the A4042 slip road to City Centre/Canol Y Ddinas/Docks/Dociau/Royal Gwent/Brenhinol Gwent

0.1 mi

Merge onto A4042

0.4 mi

Follow Granville St to George St/B4237

1 min (0.1 mi)

Turn right onto Granville St

0.1 mi

Slight right to stay on Granville St

118 ft

Continue straight onto George St/B4237

Continue to follow B4237

2 min (0.3 mi)

Turn right

14 s (56 ft)

Royal Gwent Hospital

Cardiff Rd, Newport NP20 2UB

SERVICE STRIKES

Electric - Switch machine off & evacuate all personnel on the ground. The rig operator must remain in the rig. Do not attempt to disengage the cable from the auger. Do not touch exposed cables.

Gas - Switch all machinery off & evacuate all personnel to safe distance. Extinguish all naked flames. No smoking. Gas emergency number is 0800 111 999

SPILLS

Eliminate sources of ignition. Contain spillage in booms or sand or absorbents. All contaminated items & oil must be returned to your office/depot & be disposed of at an authorised disposal facility.

Mechanical / structural failure that puts persons at risk

In the event of a failure, stop all operations and if possible bring the machine to a safe condition. Isolate the machine (eg key out) and if possible, set up an exclusion zone.

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RISK ASSESSMENT

Persons Affected: Smartfoot Crew, other contractors on site, members of the public

Significant hazards	Initial risk	Control Measures	Residual risk	Responsibility
Site wide risks	Medium	• Site visit by contracts. • Site induction. • Mandatory PPE at all times – safety helmet, high visibility clothing, protective footwear, eye protection, gloves	Low	All
Contact with underground services	High	Permit to Work (SET16) to be signed by the Clients senior representative on site or by a senior manager employed by Van Elle prior to any drilling work commencing. In accordance with our Permit to Work System, if for any reason the following cannot be achieved, the office will be notified before work commences. • Drawings shall be available on site for utility providers • The working area and 5 m surrounding the working area has been scanned with Cable Avoidance Tool used by a competent person • Any services within the working area and 5 m surrounding have been exposed and their location marked clearly across the whole of the working area • Rigs must not be operated within 1000mm of a service (15metres for gas unless client has contacted the service provider and specific instructions issued **in writing**) • Underground Services will always be assumed to be live	Low	All
Overhead Services • Accidental contact by Concrete Boom or Crane	High	• Work in accordance with GS6, • Consultation with cable owner before any work is carried out around OH power lines & establish whether the cables can be moved or isolated, and the extent of any clearance zone around the cables. • All communications with the cable owner, including any specific instructions from them, must be confirmed in writing. A Statement of Clearances, for work near overhead powerlines must be obtained prior to works commencing	Low	All
Plant & vehicle movements • Obstruction of footpaths at site access and egress points; • Other road / site traffic movements, • Collision with surrounding structures or plant/equipment during plant movements	High	• Access routes for lorries will be agreed with the Main Contractor before work commences	Low	Contracts
		• Site speed restrictions will be adhered to • Consideration for room required for maneuvering the machine. Check for obvious hazards such as soft ground, narrow gaps, limited head-room, gradients and excavations		Driver / Machine operator
		• All reversing vehicles & plant movements will be directed by a Banksman		Foreman / Banksman
Access to trailer to offload beams and equipment • Fall from height. • Struck by moving or falling loads	High	• Prevention of falls by the use of edge protection fitted to the sides of trailers. Where edge protection is not fitted, risk of injury will be minimized by the provision of soft landing systems	Low	Foreman
		• Safe means of access and egress such as a proprietary ladder or step system that forms part of the lorry, or a properly secured ladder. • Inspection of ladders for signs of damage & be free from mud or grease. Ladders to extend past the trailer bed to enable you to step off whilst still having 3 points of contact • Looking where you're going - do not walk backwards whilst on the trailer. Do not rush! Do not use a mobile phone		All staff

		• Where possible, the physical unloading should take place without anybody being on the vehicle. When this is unavoidable:
		  ○ Keep the number of persons on the lorry to a minimum - only those who need access to the vehicle for unloading should be allowed onto it.
		  ○ Ensure that the person on the deck/trailer bed is well out of the way when the load is being lifted.
		• The initial instruction to lift the load must be given by the person on the deck/trailer bed		

Using mechanical means to offload beams and equipment	High	• Ensure that the operator is suitably qualified and competent • The vehicle must be serviceable and relevant checks made • Ensure that the routes and lay down areas are accessible and clear of persons / debris	Low	All staff
		• All reversing vehicles & plant movements will be directed by a Banksman		Banksman
Pile cropping (concrete) • Fire (Sparks) • Eye injuries & puncture wounds from wheel bursts • Contact with rotating wheel or disk • Wheels snagging on rebar • Clothing/hair entanglement with moving parts • Inhalation of dust / fumes • Exposure to noise and Hand Arm Vibration (HAVs) • Hit by flying particles / debris • Manual handling injuries Slips, trips from cables	High	• **Wherever possible, manual cropping should be avoided & replaced with mechanical croppers to reduce the risk from Hand Arm Vibration.** • Ensure that cropper is secured to lifting point on dipper arm prior to operating. Banksman to be in attendance for mechanical pile cropping. • All equipment will be inspected for damage prior to use. • Only 110V or less electrical equipment will be permitted on site. All portable electrical equipment will be subject to planned maintenance (e.g. PAT testing) • Keep electric cables out of path of plant/vehicles and away from pedestrian routes. • Only authorised and trained operatives to use abrasive wheels. Check that the correct disc /wheel is used & that the operating speed is indicated. **Full circumference discs minimise snagging.** Users will not use undue pressure. The operator will make sure that guards are fitted and remain in place. • Ensure that all persons are kept away from areas where sparks or dust is directed. Shield work area where possible to contain sparks. A 2kg powder extinguisher will be close to where the cutting operation is being carried out. • **Water suppression or dust extractor system to be used during ALL cutting** • Minimise exposure to vibration by using diamond tipped blades, reducing the amount of time you use the tool in one go, by doing other jobs, or sharing the workload. Keep hands warm & dry & avoiding gripping or forcing tools. • Breakers must be anti-vibration models with magnitude of less than 6.5m/s^2 • PPE requirements in addition to mandatory - hearing protection, goggles, long sleeve clothing & gloves. Loose clothing will not be worn by operators. Short trousers are also not permitted • Dust masks with minimum FFP3 standard to be worn at all times. Face Fit Testing to be completed by H&S Dept.	Low	All staff
		•		
Excavations • Trench collapse / person trapped by falling spoil • Access and egress	High	• Where the site requires work in an excavation of 1.2mtr or deeper the Foreman is to contact the Divisional Director or Contract Manager for guidance and authority to continue. • Plan the work to ensure that adequate resources are available to provide trench support where required and support for any services present. • Special care and planning should be taken for work around adjacent structures at the design stage to ensure that the excavation is supported adequately to prevent collapse. Any temporary works must be designed by a competent person.	Low	Contracts

• Persons, plant or materials falling into excavations • Flooding of excavations or presence of contaminated soils • Presence of hazardous atmospheres		• Where potential for hazardous atmospheres is identified the method statement must outline safe systems of work. The air must be continually monitored using a gas detector, suitable ventilation must be provided and there must be an Emergency Plan in place and in the job file. Consult Safety Dept.		
		• Inspect excavations before each shift and complete SET20 recording anything that may have affected the stability of the excavation e.g., adverse weather conditions. • Use sufficient fixed ladders in separate locations in order to provide access and egress in the event of a collapse or another hazard. • Provide fencing, stop blocks or other physical barrier where there is a risk of site traffic, other site personnel and the general public falling into excavations. • Ensure that persons cannot be struck by materials falling from the side of excavations, spoil or stored materials falling into excavations; by keeping such hazards at least 1.5m away from the side of the excavation. • Provide stop blocks, fencing or other physical barriers to prevent site traffic toppling or sliding into excavations. • Where water ingress is present ensure that suitable pumping arrangements are in place.		Foreman Main Contractor
Excavators • Trench collapse • Persons, plant or materials falling into excavations • Driver falling or being thrown from machine • Collisions with pedestrians, other plant & machinery or surrounding structures. • Contact with moving parts of machinery • Pedestrian struck by falling bucket or other attachment (quick hitch. • Machine overturning due to: a. Unstable ground conditions b. Working on steep inclines c. Overloading of bucket with spoil or when using as lifting equipment • Operation by untrained / unauthorised persons	High	• Maintenance certificate must be provided by the hire company. Conduct pre-use checks & complete the Daily Inspection Sheet. Do not attempt to operate the machine if faults are found • Only specifically trained & competent operators to be driving the machine. (CPCS) • Consideration for room required for manoeuvring the machine. Check for obvious hazards such as soft ground, narrow gaps, limited head-room, gradients, adverse cambers, and excavations • Passengers must not be carried on excavators. Excavators must not be used to lift people. • Make sure no one (pedestrians/ground workers etc.) enters the danger zone while the machine is in operation. **Working below excavator buckets is prohibited.** • Excavators may only be used as a crane if they are equipped to do so. Lifting accessories must only be shackled to a lifting eye. Chains should not be wrapped around the bucket. Check that the load does not exceed the lifting capacity of the machine. Keep loads as low to the ground as possible when tracking around site	Low	Foreman
		• Excavator to be left in a secure manner when not in use; switch off the engine & place the bucket on the ground. Keys should be removed. Attaching & detaching of quick hitch devices must always follow the manufacturer's instructions. • The machine operator will make sure they know the lift capacity of the machine, to prevent the possibility of a tip-over. Keep the bucket just above the ground so that if the machine does tip it will only go as far as the bucket • Never try to cross an incline at an angle. Only go straight up and straight down an incline. • When tracking uphill extend the arm in front of you to act as a counterbalance. Going downhill, again, keep the arm in front of you but as close as possible so that it does not act as a counterbalance. • Use caution when working at right angles to avoid toppling of the machine. Avoid overfilling the bucket, Never slew with a full bucket at maximum reach, Always slew slowly • To eliminate the possibility of a trench cave-in, don't undercut the tracks during excavation. • Discharge spoil well clear of the excavation to avoid its weight causing the side of the excavation to collapse. • **Always use the seatbelt.** Mobile phones must not be used when operating machine • Never jump down from the cab. When climbing in and out of the cab always use the steps and grab rails		Machine operator
		• Do not stand between the body & tracks of the machine • Make sure the driver is aware of your presence		All staff

Preparation of pile caps including concrete boom pump • Movement of concrete lorries • Overturning or collapse of the concrete pump • Operation of concrete boom - collision with mobile plant, structures, people, overhead cables • Blocked concrete hoses / hose bursts, whipping of hoses • Burns & irritation from contact with wet concrete • Unauthorised use • Vibrating pokers (vibration)	High	• Access routes for vehicles will be agreed with the Main Contractor before work commences • All vehicles / plant reversing will have a banksman in attendance. • Selection of pump based on access, ground stability, site hazards, boom reach • Lorry mounted pump to be sited on firm, level ground with stabilisers fully deployed onto sole plates. Use by competent operator • All persons must stay clear whilst the pump is set up & the boom unfolded. No person, other than the operator will be allowed onto the pump during its operation; • During boom movements, all persons will remain at a safe distance; the. No person, other than the person guiding the placing hose, should be allowed to work under the boom. • Booms must not be operated in close proximity to overhead cables. Ground level pipe-line to be used. • Directions for boom movement to come from person holding delivery hose. • Flexible delivery hose to be held loosely at arm's length. Flexible delivery hose must never be kinked. • Impervious PPE to be worn i.e. safety glasses, gloves/gauntlets, overalls / waterproof clothing, (Shorts will not be allowed) keep exposed skin to a minimum. • Blockages – CPO to stop pumping. Clear people from the danger zone of hose (twice length of delivery hose) before attempting to remove the blockage. Treat as pressurised. • Do not open or attempt to open the hose under pressure. Do not uncouple hoses without the pump operators' permission. Wash out adaptors to be fitted with a pressure relief valve and be in good working order. • Isolate before leaving unattended • Minimise exposure to vibration when using pokers by reducing the amount of time you handle the tool during use. Keep hands warm & dry; Maximum duration that pokers can be handled per shift is 2.5 hours.	Low	All staff
Mobile crane operations	High	• Refer to Separate site specific lift plan developed by Appointed Person •	Low	Foreman

Tensioning / De-tensioning of beams • Failure of beams or tendons & anchor plates due to over-tensioning, damage etc • Manual handling of jack & power unit into/ out of excavations; • Sudden release of tension due to arc–air cutting • High pressure oil / damage to hydraulics • Trapped fingers between sections of beam • Coiled tendons whipping when being untied	High	• Stressing to be done by operatives trained & competent to use & maintain the Freyssinet stressing equipment. • The Foreman is to visually inspect every anchor and ensure that the painted test inspection mark is present. • Pump & hoses to be checked regularly and well maintained. • Use of calibrated tensioning equipment fitted with safety valve. • Van Elle responsible for setting up an exclusion zone around the ends of beams being tensioned. Use of additional Heras, solid fencing or spoil heaps to protect others where beams are above ground level. • There is to be a minimum of 0.5mtr of tendon protruding from the beam. • Operatives to stand to the side, clear of ends during tensioning. Remote control operation of jack. • Jawsets to be securely and evenly positioned on tendon prior to tensioning. • Condition of beams & anchor plates to be checked prior to & during tensioning. • Even distribution of tension throughout process; Beams to be checked for stress fractures. • Use of correct de-tensioning gear to re-apply loading. • Standard PPE and cutting PPE, brazing goggles, full face visor, gauntlets, flame resistant overalls and FFP3 mask for de-tensioning by cutting the tendon free by Arc-air • Uncoiling of tendons to be done in a controlled manner away from other contractors, plant & machinery • Use of barrow or team lifting of power unit & jack around site; • De-tensioning using Arc-air or Freyssinet to be carried out by trained and competent persons	Low	Foreman
Hammer drill operations • Vibration • Noise Dust	High	• Use serviceable tools and equipment • Wear standard site PPE to include safety glasses and ear defenders • Keep hands warm • Refer to the equipment's operating instructions for the safe use of equipment • Rotate the drilling tasks between operators to reduce trigger time • Ensure persons working in close proximity wear suitable PPE • As required use dust suppression such as water spray • Use FFP3 face masks correctly fitted for the operators	Low	Foreman
Use of hand tools and sharp cutting tools • Tool can slip in hand resulting in cuts/bruises/strike against fixed object • Sprains & strains under exertion • Strike hand/finger with hammer • Parts being worked on move	High	• Do not over exert pressure on to the spanner or tools, ensure a tight grip and be aware of obstructions around the bolt / fitting etc. • Press the spanner with the palm so the hand can't be crushed if tool slips • Arrange tool so that final push is down, making best use of body weight. Maximise leverage by using longer tool or extension bar • Never put full body weight on tool in case it moves, or the object moves; maintain balanced stance at all times • Ensure parts cannot move • Use correct tool for the job • When using a sharp cutting tool always cut away from the body to a clear area away from the body • Wear anti cut gloves for all cutting operations where a knife or bladed tool is used	Low	All
Security	Medium	To reduce risk of theft of plant & equipment the following must be followed: • Using cab guards if fitted	Low	All staff

• Unauthorised use of plant by other contractors or trespassers • 3rd party damage ; Theft of plant equipment and materials		• Lock small tools that are on hire in the van or secure store every night • All keys must be removed from plant & equipment where fitted, when not in use and left unattended. Hydraulic pressure to be relieved on control levers • Materials will be stored safely; diesel bowsers locked • Where Van Elle are responsible for the site, adequate security fencing and sufficient number of construction/mandatory warning signs will be deployed		
Manual handling activities • Offloading equipment • Uneven ground conditions & obstacles an route • Dropping the load • Unstable load • Increased risk of injury from lifting loads from ground level, from above head height or if the body twists • Lack of handholds • Individual capabilities Poor coordination of lift	Medium	• Manual handling operations to be mechanised where possible, to avoid / reduce manual handling risks. E.g. Use of excavator. • Handling of light – medium weight loads will be subject to on-site assessment by foreman & operatives considering the weight of the load, presence of handholds, its stability & centre of gravity & each individual's fitness & capabilities • Reduce carrying distances through positioning / storage of materials adjacent to work area Good lifting techniques; reducing impact on individuals through team lifting - one person will take charge & coordinate the lift. Ensuring working platform is kept firm & level to minimise trip hazards Ensure area is well lit. Take into consideration the weather conditions (ice etc.) Completion of manual handling training	Low	All staff
Refuelling plant & machinery • Fire & explosion • Irritation of skin through prolonged contact. Irritation of respiratory tract if inhaled	Medium	Engines to be switched off prior to refuelling; Re-fuel in well ventilated area. No smoking/no naked flames when refuelling; Mobile phones must not be used. Fire extinguishers to be available in vicinity. Practice good hygiene; Wear impervious gloves. • Do not overfill tanks.	Low	All staff

This risk assessment has been drafted in response to the current outbreak of COVID-19 within the UK and is based on the Construction Leadership Council's Site Operating Procedures dated 14th April 2020, and information on the Govt. website posted 7th April 2020. Updates are highlighted in blue

Task Covered: All operational site based activities

Hazard	Initial risk	Control Measures	Residual risk	By whom / When
Travelling to sites in works vehicles requires people to be in close proximity to one another	High	• Where possible, travel to site alone. Where vehicles need to be shared this shall be kept to a maximum of 2 per Transit sized vehicle. • Regularly clean the inside of vehicle cabs and surfaces that are regularly touched, and between use by different drivers	Med	All vehicle drivers
Visiting site for meetings etc	High	• Site visits shall only take place if absolutely necessary. • Video conferencing to be used in preference to travel to site • Arrival on site at times that are less congested • Attendees shall be two metres apart from each other in well ventilated rooms to allow fresh air to circulate. Alternatively hold meetings outdoors	Low	Any person visiting site
Contact with other people during inductions / briefings	High	• Client shall be reducing the number of people in attendance at inductions and briefings, or shall consider holding the induction/briefing outdoors • Sharing pens and paper which can spread the virus between people shall be avoided	Low	PC inductees
Contact with communal equipment	High	• Common contact surfaces such as door handles, telephones etc shall be cleaned regularly. Individuals to wear gloves	Med	All
Access onto site for work	High	• Stagger start and finish times from other contractors • Arrival on site at times that are less congested. • Staff shall refuse to use the fingerprint scanners onto site unless they can be cleaned between each person • Everyone shall be cleaning their hands before entering or leaving site	Low	Site workers
Utilisation of site welfare facilities.	High	• Do not enter busy welfare units but wait until other people are clear • Break times shall be staggered to reduce congestion and contact at all times • All personnel must observe social distancing of 2metres whilst using any welfare facility including WC	Low	Site workers

		• Observe recommended hygiene standards of hand washing at regular intervals especially before and after using the welfare • Client is responsible for implementing and maintaining a robust cleaning regime • Consider bringing in pre-prepared meals and drinks, and your own knives/forks to avoid communal cooking equipment (microwaves etc) • Everyone shall be putting their own rubbish into bins so that others do not have to touch it		
Contact with site teams to complete paperwork (pile logs, permits etc)	High	• Sign off electronically where possible • Sharing of pens etc shall be avoided. • Leave paperwork in designated areas for others to collect once you are clear	Low	Site Workers
Activities that require close working (Closer than 2metres)	High	There will be situations where it is not possible or safe for workers to distance themselves from each other by 2 metres. In these instances, • **A Point of Work Risk Assessment must be completed** • **There shall be no bodily contact** - Non-essential physical work that requires close contact between workers shall not be carried out • **Stop and Think about the tasks you carry out**. If you need to work closer, keep the times to absolute minimum. (no longer than 15 minutes) • Minimise the number of workers involved in these tasks • You should work side by side, or facing away from each other, rather than face to face • Increase the frequency of hand washing • As much as possible, Divisional managers shall keep groups of workers working together in teams that are as small as possible. For example, you keep vehicle crews working together, rather than mixing crew members from other sites • Where rigs and plant are driven/operated by more than one person, controls shall be cleaned between operators. Doors on rigs and excavators shall be kept open • Gloves to be worn, and don't touch your own face with a glove • Wear respiratory protection or face visors, and gloves • Re-usable PPE shall be thoroughly cleaned after use and not shared between workers • Single use PPE shall be disposed of so that it cannot be reused • Use machines on site to lift and support equipment whilst you work on it.	Med	Contracts / Site Workers
Direct contact with other people in an emergency situation (first aid)	High	• All trained first aid personnel must exercise extreme caution when treating any injury to any party • Initial assessment whilst maintaining 2metres clearance; Injured person to do as much as possible • Face masks and gloves to be worn by the first aider whilst treating the injured person. • First aider must wash hands immediately after treatment has been completed	Med	First aiders

Assessment completed / reviewed by: G Levers In conjunction with: A Blakesley, CLC guidance doc Date: 30/04/2020 Next review date: 15/5/2020

Task Covered: Installation of pile caps using readymix concrete. Occasional mixing of concrete for repairs. Operatives will be exposed on pour days, and for moderately long periods to cementitious materials.

Hazard	Who is harmed & how?	Initial Risk	Specific Control Measures	Emergency Procedures	Residual Risk
Batched concrete & admixtures Contains various chemicals including lime, calcium silicates and alkalis plus Soluble chromium (VI)	Inhalation can lead to developing acute rhinitis and localised irritation. Risk of chronic respiratory problems. When dry, Respirable Crystalline Silica is a risk via inhalation Contact with skin and eyes can lead to irritation & burning due to the corrosive properties. Prolonged & repeated exposure may also lead to Irritant and allergic dermatitis developing Ingestion – the swallowing of small amounts of concrete products and admixture is unlikely to cause any significant reaction. Larger doses may result in irritation to the gastrointestinal tract, nausea, diarrhoea & vomiting	High	Standard Working Practices Keep exposed skin to a minimum to avoid contact – wear impervious gloves and protective clothing, including overalls with long sleeves and long trousers. Do not allow concrete to become trapped between the skin & clothing All concrete spills must be cleaned up	Standard First Aid measures. Prevent entry into drains and watercourses. Allow to dry before disposing of as hardcore	Low
Bagged Cement	• As per batched concrete • Prolonged & repeated exposure to cement dust may lead to chronic productive cough (bronchitis).	High	As per batched concrete Gauntlets must be worn when mixing grout, but do not allow grout/cement to become trapped between the glove and skin. If mixing cement by hand, Wear respiratory protection with minimum standard of FFP3. Must be clean shaven and fit tested Airborne dust should be prevented by only opening bags when needed and by not shaking bags completely empty them		Low
Concrete repair, epoxy grout	May cause sickness, drowsiness leading to unconsciousness. Contents are an irritant to skin Contents will cause severe irritation to the eyes	Medium	Standard Working Practices	Standard first aid measures Eyes - Remove contact lenses if present and flush the eyes with clean water for 15 minutes and seek medical advice	Low

Task Covered: Various tasks related to the on site inspection and basic maintenance of equipment. Includes refuelling, topping up fluids etc . Operatives will be exposed infrequently and for short periods

Hazard	Who is harmed & how?	Initial Risk	Specific Control Measures	Emergency Procedures	Residual Risk
Engine Oil	Fitters can suffer skin irritation from contact with engine oil. (long-term repeated) exposure to used oil may lead to the production of skin tumours. Hot oil may produce irritant fumes	Med	• Standard Working Practices • Do not perform oil change on excessively hot oil • Do not breathe in oil mist from hot oil – Ensure good ventilation throughout oil change; • No contaminated materials (oily rags) in pockets • Storage on drip trays / bunded areas	Turn leaking containers leak-side up to prevent further escape. Contain spillages using spill granules, sand or other inert absorbent. Protect drains. Once dry, sweep up and transfer to suitable, labelled containers for disposal.	Low
Hydraulic Oil	Not classified as hazardous however can become highly toxic if oil becomes injected into the body In common with most mineral oils, prolonged and repeated skin contact may cause dermatitis.	Med	• Standard Working Practices • Prevention of injection injuries in accordance with hydraulic safety work instruction • Avoid generating & breathing in mists • No contaminated materials (oily rags) in pockets • Storage on drip trays / bunded areas	**Seek immediate medical assistance if hydraulic oil is injected into the body** Turn leaking containers leak-side up to prevent further escape. Contain spillages using spill granules, sand or other inert absorbent. Protect drains. Once dry, sweep up and transfer to suitable, labelled containers for disposal.	Low
Grease	Continuous & prolonged exposure to grease may cause skin irritation	Med	• Standard Working Practices	Standard First Aid measures.	Low
Petrol	Operator may be harmed if vapours are inhaled. May cause irritation to the respiratory system. Prolonged exposure to vapours may cause drowsiness and narcosis. May cause skin irritation and inflammation; prolonged or repeated contact may result in dermatitis. May also cause cancer.	Med	• Standard Working Practices • Use in well ventilated areas • Keep chemicals away from heat sources, open flames & other sources of ignition.	**Ingestion of petrol can lead to unconsciousness**. If this occurs, place injured person in recovery position and protect airway. Seek immediate medical attention Turn leaking containers leak-side up to prevent further escape. Use foam extinguisher to smother spills to prevent ignition	Low
Diesel and exhaust fumes	Irritation of your eyes & respiratory tract; headaches and convulsions. Repeated contact with your skin can cause de-fatting & in some cases, dermatitis. Irritation of the mucous membranes, throat and stomach, nausea and vomiting. Liver and kidney damage is possible Continuous exposure to exhaust fumes can cause long term, or chronic, respiratory ill health including cancer. Exhaust fumes in poorly ventilated areas can lead to Carbon Monoxide poisoning	High	Turn off engines when not required; All re-fuelling to be carried out in well-ventilated areas- preferably outdoors and away from sources of ignition. Store in well ventilated areas away from naked lights & heat sources. Store in bunded bowsers or jerry cans. Drums must be stored upright in a bunded area. Do not allow to enter water supplies or soil. For smaller rigs, locate powerpacks in well ventilated areas. Use mechanical ventilation &/or tail-pipe filters when working in poorly ventilated areas	**Standard first aid measures** Turn leaking containers leak-side up to prevent further escape. Contain spillages using spill granules, sand or other inert absorbent. Protect drains. Once dry, sweep up and transfer to suitable, labelled containers for disposal **CO Poisoning – don't put yourself at risk – make sure the area is ventilated before you enter. get the casualty to fresh air before taking to casualty**	Low

Linemarker Spray Paints	Can cause asphyxiation, irritating to the respiratory system, skin and eyes when used in areas with poor ventilation. Repeated & prolonged exposure to the propellant can result in the de-fatting of the skin.	Med	• Standard Working Practices • **Pressurised containers -** Do not use or store in close proximity to sources of ignition. • Wear gloves to prevent paint coming into contact with skin. • Ensure good ventilation. Do not inhale aerosol mist	**Burning produces irritating, toxic and obnoxious fumes** Only attempt to fight fires if safe to do so. Evacuate if smoke is affecting your breathing, you cannot see the way out, or the fire continues to grow	Low

Standard Working Practices	Good housekeeping to be maintained in all work areas and welfare facilities; Use the welfare provided to dry clothes and change clothes regularly Change out of heavily soiled / contaminated clothing and wash hands & face before eating or drinking Regularly wash the skin with warm water and soap, and dry the skin afterwards. Refrain from touching face with soiled hands. Do not eat or smoke in areas where there is likely to be exposure; Cuts or wounds must be covered Apply work creams to exposed skin regularly Wear long-sleeved protective clothing; Wearing impervious vinyl or nitrile gloves when handling chemicals or contaminated equipment Eye protection must be worn at all times Always store in original containers that are correctly labelled. **FOLLOW MANUFACTURERS INSTRUCTIONS**
Instruction Information Training & Supervision	All operatives briefed on routes of entry, skin checks and health risks of working with hazardous substances as part of 1-day Safety Awareness training Foremen completed 2-day SSSTS course which covers COSHH All staff briefed on correct fitting of respiratory protection as part of fit test programme Regular toolbox talks delivered on occupational health issues delivered by foreman fitter Copies of Safety Data Sheets kept on file. Instruction given that if a new product is being used, the COSHH assessment will need to be reviewed Regular manager visits carried put to ensure controls are being implemented Instruction given that if the product is being used in a manner different from the way specified, a separate risk assessment will be needed
Exposure limits	Cement has a Workplace Exposure Limits (WEL's) of **10mg/m3** total inhalable dust and 4mg/m3 respirable dust (8 hour TWA) Exposure limits are not exceeded during normal operating conditions & due to the quantities involved at any one time it is unlikely that the limits be exceeded in the event of an accidental release. Previous monitoring of airborne dust identified levels of dust that were significant but were below their respective limits
Health Surveillance	Health screening with occupational nurse covers dermatitis checks & spirometry. Safety Awareness training includes instruction to carry out self-checking
Thorough Examination & Testing	Not required. No LEV in operation

Emergency Provisions	Emergency First aid trained personnel present; Eye wash & first aid facilities shall be kept in an easily accessible place. Fire extinguishers (dry powder) maintained and readily accessible Spill granules and absorbent pads readily accessible. Use correct waste stream
Standard First Aid	**In all cases should exposure be excessive or symptoms develop seek medical attention.**
	Ingestion - wash mouth / nose out with water, and give patient plenty of water to drink. DO NOT induce vomiting. Seek medical attention
	Skin – Remove contaminated clothing as soon as possible and wash with soap and water. If irritation, pain or other skin conditions occur, seek medical advice
	Eyes – Do not rub eyes, remove any contact lenses. Hold the eyes open and wash with emergency eye wash solution (if available) or clean water for up to 15 minutes. Seek medical attention
	Inhalation - Remove casualty from exposure ensuring your own safety whilst doing so. If possible, remove any excess substances from the nasal passages. Keep casualty warm & at rest. Seek medical attention

Environmental Assessment		Risk rating	Control Measures	Residual risk
Aspect	Impact			
Mobilisation & deliveries	• HGVs block roads causing delays; potential for noise & disruption to local community particularly during early deliveries to avoid peak traffic; vehicles or plant being transported are not cleaned prior to leaving site then contamination of the highways & surface drains is possible. • Fuel consumption & exhaust emissions	High	Considerate driving & parking - large vehicles parked up clear of site and only brought in when vehicle can be accommodated on site Neighbour notifications & planning around busy times Cleaning down plant prior to transport if required Use low emission fuels, ADBLUE. Switching vehicles off when not in use Lodging in hotels close to work area; Use of crew cabs & van sharing instead of each person using their own vehicle	Low
Excavations	• Excavations generate large volumes of spoil. • Some may be re-used on site by the Main contractor whilst other is taken for landfill. • Likely for some of the spoil to be contaminated, particularly on reclaimed land which would need to be treated as hazardous waste.	High	Smartfoot system can minimise spoil generation; Ascertain level of contamination in ground. Set up site procedures to deal with it Correct disposal route; some spoil can be re-used provided any contaminant is separated;	Low
Pile cropping	• cropping can produce airborne dust if not properly controlled; • Noise & vibration nuisance issues when working in urban areas, close to existing properties	Medium	Use of pile croppers & dust suppression on cut off saws. Restricted hours of operation; Switching off plant when not in use	Low
Concrete works	• Large volumes of raw materials to produce concrete • Concrete pumping may cause pollution of drains, & watercourses particularly when washing down of wagons and pumps • May also be an issue if blockages occur & concrete is ejected across site.	High	Reduction at design stage; Accurate ordering; careful placement of concrete to avoid unnecessary spills provision of wash out skips or other bonding maintenance of plant & machinery	Low
Silt	• Silt can reduce water quality, damage and kill aquatic life and cause flooding by blocking culverts and channels and is produced by many construction activities including excavations, plant & vehicle movement, and rain water run-off from exposed ground.	High	The client will be responsible for the dewatering of site Silty water must not be discharged to a drain without prior treatment to remove solids and only when permission from the local sewerage provider has been obtained	Low
Mobile plant operations	• Exhaust emissions; Black smoke if machine is poorly maintained • rigs use large volume of fuel during operations • Noise & vibration nuisance when working in urban areas,	Medium	Servicing of machinery Reducing noise levels from all plant whenever possible; switching off plant when not in use; All plant will be fitted with efficient silencers; Restricted hours of operation	Low
Storage & use of fuels & oils	• Pollution of water courses, drains & sewers through accidental spills, hose bursts and poor storage	High	Store fuel in secure, vandal proof bunded tanks (at least 10m away from watercourses) Carry out refuelling safely & prevent spills. Spill kits are available on site with personnel instructed in their use	Low
Materials Handling & Waste	• Poor handling and storage of materials leading to excess waste to landfill, Materials becoming damaged & unusable; poor stock control Waste being mixed or sent to incorrect landfill • Leaching into ground and entering drains & watercourses. • Damage to plants/animals, unsightly windblown rubbish	Medium	Order correct amounts of materials; avoid accepting incorrect deliveries; avoid double handling; Re-use/recycling materials, segregation of waste Segregation of waste & recycling; site waste management plans, use of licensed disposal routes; Provision of suitable waste containers & Housekeeping	Low