



COMBINED METHOD & RISK FOR GROUND BEAMS & SLABS

Site	Proposed Dwelling, Adjacent to 65 Wharfdale Road, Barnsley, S75 2JY.			
Project/task	P3043 / 165 – Construct RC Ground Beams.			
Client	Bo Homes (Yorkshire) Ltd			
Westbuild	Contracts Manager	Edward Tweed	Tel No.	01302 265856
contacts	Foreman	TBC	Tel No.	
	Safety Manager	C2 Safety	Tel No.	

Revision Status

Rev 0	Name	Position	Date	Signature
Prepared by:	Edward Tweed	Contracts Engineer	26/04/2021	<i>Edward w. Tweed</i>
Reviewed by:	C2 Safety	H&S Adviser	-	-
Accepted by:				

Rev No.	Revised by	Date:	Amendments

BRIEFING SHEET

This method statement **MUST BE** briefed to the foreman responsible for the works as part of the pre start briefing. The Divisional Director is responsible for ensuring this is done. The foreman shall brief all site operatives and sub-contractors on site before commencing work. Everyone must sign off on the Method Statement Briefing Sheet to confirm that they have been briefed and that they understand the risks and controls, and their responsibilities.

Where work cannot be carried out in accordance with this method statement, the foreman shall stop work & discuss any concerns with his Manager & await further instruction. All parties shall then be briefed on any changes to the method of work.

Initial briefing given by:

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1. Scope of works

- Construct RC Ground Beams, in accordance with Drawings: P3043-01.
- Site access via Wharfdale Road.
- Position of equipment and materials to be agreed (within 20m of work area).

2. Hazard Identification

All hazards identified must be assessed and control measures in place to reduce the risk to an acceptable level.

Site access & egress	x	Material storage	x	Contaminated land	
Excavations	x	Ventilation / fumes		Concrete pumping / pouring	x
Underground services	x	Lighting		Working at heights	
Site security		Housekeeping	x	Confined space	
Overhead services		Gradients / sloping ground		Railways	
Dust generation		Adjacent structures	x	Waterways	
Traffic management	x	Third parties		Traffic & highways	x
Deliveries	x	Public footpaths/areas		Others	

3. Method of Work and Control Measures

3.1 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 are identified and suitable control measures identified.
 - Presence of cracks on any structure within 10m shall be recorded on site visit report.
 - Assessment of depth of excavation & requirements for trench support/temporary works.
 - Consider site layout / space with regards to manufacture & installation of steel reinforcing .

Contracts Manager is responsible for ensuring that crew deployed to site have necessary competencies

Foreman	SSSTS / NVQ3 Supervisor
Excavator driver	CPCS Excavator (180° or 360° depending on site)
Dumper driver	CPCS Dumper

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)
- Providing a suitably maintained working platform
- Advising on known or likely ground contamination & any control measures in place.
- Signing the Westbuild 'Permit to Break Ground' 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.
- Check that the client / main contractor has carried out checks / protection for underground services and sign off contract notes.
- Ensure that sufficient PPE provisions are available & that it is worn in accordance with Westbuild & 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 is completed. 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 Break Ground' is signed prior to work commencing.

3.2 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

- Make sure any building, garden, driveway or footpath is protected before any unloading takes place.
- 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, lifts will be carried out with no-one on the back of the trailer (slinger to return to ground before signalling to crane operator)

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.

3.3 Pile Cropping

Piles will be cropped with:

- 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

- Use of burning gear. When burning, welding mask, flame retardant overalls, gauntlets and safety boots must be worn at all times. Ensure the working area has sufficient ventilation. Remove all combustible materials from working area.*

At least 2 no. 2kg extinguishers in proper working order must be kept in the immediate area of the work and used immediately smoke or smouldering or flames are detected

Operators will make sure equipment is correctly assembled. The correct lighting & shutting down routine will be followed. Cylinders will be stored upright in secure cages & correctly shut off when not in use.

The work area must be inspected approximately 60 minutes after the completion of work and immediate steps taken to extinguish any smouldering or flames

The operator will ensure that all persons are kept away from areas where sparks or dust are directed. Work areas will be shielded where necessary.

3.4 Excavations

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]*

Foreman will inspect excavations before each shift and record 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. (eg. 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.

3.5 Installation of reinforcing

Reinforcement cages will be constructed on fabrication trestles positioned on firm, level ground. Wherever possible, manual handling of steel cages will be avoided by using means such as excavators with lifting eyes & certified lifting equipment. The Foreman will ensure that the load does not exceed the lifting capacity of the machine.

Lifting accessories of sufficient capacity will be attached to the excavators lifting eye with a shackle. Lifting accessories must not be wrapped around excavator buckets. Loads will be kept as low to the ground as possible when tracking around site

Where manual handling cannot be removed, the **carrying distance** can be reduced by preparing cages in close proximity to final positioning. Team handling of cages should always be carried out with operatives equally spaced along the cage to spread the load. The work area must be clear of trip hazards.

3.6 Concrete pour

Concrete will be placed with either a lorry mounted pump, excavator, dumper or barrow depending on size of site.

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

Westbuild 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, the distance to 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. 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.

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.

Blockages

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. Westbuild 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 pipeline must be treated as being pressurised at all times. Appropriate and adequate eye protection must be worn when opening the pipeline.

Cleaning out the machine and pipelines

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

3.7 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.

4. Communication and liaison

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

Westbuild site operations will be under the full-time supervision of a competent and experienced Site Foreman who has completed supervisor training (NVQ3 / SSSTS). The 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 significant 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.

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

5. 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 emergency arrangements.

Westbuild crews are equipped with a number of 2kg dry powder extinguishers and first aid provisions to complement the main contractors' 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 Westbuild Safety Dept. and the Main contractors site manager

SERVICE STRIKES

Electric - Switch machine off & evacuate all personnel on the ground. The machine operator must remain in the cab. Do not attempt to disengage the cable from the bucket. 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

FIRST AID INFORMATION AND EMERGENCY ACTIONS FOR COSHH SUBSTANCES

- Inhalation - Remove casualty from exposure ensuring your own safety whilst doing so. Keep casualty warm & at rest. Seek medical attention
- Eyes –Irrigate with plenty of water, if irritation persists seek medical attention.
- Skin – Wash with soap and water, remove contaminated clothing
- Ingestion - wash mouth / nose out with water, DO NOT induce vomiting. Seek medical attention

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.

RISK ASSESSMENT				
Persons Affected: Westbuild operatives, other contractors on site, members of 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 Westbuild 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 - excavators must not be operated within 1000mm of a service - Underground Services will always be assumed to be live	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	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 manoeuvring the machine. Check for obvious hazards such as soft ground, narrow gaps, limited head-room, gradients and excavations		Driver / Machine operator
		All reversing vehicles & rig/plant movements will be directed by a Banksman		Banksman
Access to trailer to offload 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 minimised 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 - 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		All staff

Lorry mounted cranes • Overturning of the crane may occur through the following; ○ Ground Conditions. ○ Tampering with safety devices. ○ Lifting of loads above the SWL. • Collision with surrounding structure • Failure of lifting equipment • Damage or injury to passing vehicles & pedestrians by the position of outriggers, crane or load movements or when visibility is restricted	High	• All lifts will be completed under the direction of a trained and competent slinger/signaller.	Low	Foreman
		• The crane, lifting accessories and all safety devices will be checked daily & the daily check sheet completed. All lifting equipment is subject to a thorough examinations/testing in accordance with LOLER 1998. • Fully extended outriggers will be used at all times & locked in position. Outriggers must not be positioned where the ground could collapse e.g. on poorly made ground, at the edge of excavations, or over manholes, chambers, drains, services etc. • Outrigger mats must be placed under outriggers on all lifts. Where additional support is needed, sleepers should be placed UNDER the outrigger mats so that the load is evenly spread. Do not use scaffold boards or other off-cuts of wood found on site. • Where a HIAB has factory-fitted remote controls, these must be used at all times to allow the operator to stand in a position of safety • Test lift to make sure the lift can be carried out safely e.g. to check levels, outriggers don't sink, load is stable etc. • No loads will be left suspended. • Avoid unloading in high winds, heavy rain & snow or icy conditions.		Crane operator
		• Lifting points on loads shall be checked for signs of damage prior to being lifted. • Only propriety lifting points on loads will be used; Only recognised slinging techniques will be used; Tag lines will be used when necessary.		Slinger Signaller
		• Do not overload the crane or lifting accessories. Operator & Slinger signaller to ensure they are aware of the safe working load before the lift commences. • No one to stand at the side of the vehicle being loaded/unloaded including the slinger/signaller • Do not allow the load to swing over or into live traffic lanes or over people • Lifting equipment will not be used for towing or pulling		All staff
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 (eg 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	Low	All staff

		- 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.		
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
Dumpers Overturning on slopes and rough ground and at the	High	- Check that a maintenance certificate has been provided by the hire company. Conduct daily pre-use checks & complete the Daily Inspection Sheet. Do not attempt to operate the machine if faults are found. - Make sure the Roll Over Protection (ROPS) bar is properly locked in position whilst the dumper is in use. Removal of the ROPS bar is subject to additional risk assessment by the H&S Dept.	Low	Foreman

edges of excavations, embankments etc; • Overturning due to overloading or uneven loading; Struck by falling objects during loading • Collision with pedestrians or other site plant • Entrapment in articulation • Driver thrown from vehicle while travelling over rough ground; • Operator error due to lack of experience and training,		• Only specifically trained & competent operators to be driving the machine. (Eg. CPCS) • Before commencing work each day, consider the room required for manoeuvring the machine. Check for obvious hazards & obstructions such as soft ground, narrow gaps, areas with limited head-room, steep gradients, adverse cambers, and excavations. • Where possible, avoid driving on slopes. If slopes cannot be avoided, check with the vehicle manufacturer's guidance on its capability to negotiate a slope. Consider the use of alternative types (such as tracked dumpers) in locations with significant slopes or poor ground. Do not drive across slopes • Make sure you know the lift capacity of the machine, to prevent the possibility of a tip-over. Skips should always be loaded evenly within the dumpers safe working limit. Loads should not obscure the driver's view. • Always apply the handbrake and select neutral gear when loading or tipping. The driver must climb down & stand clear during loading. • Check for pedestrians or other plant movements near the dumper before you move off. Banksman to be used if the driver's view is impaired. Amber flashing light must be used • Passengers must not be carried. Always use the seatbelt. Speed should be kept to a minimum on rough ground. • Mobile Phones / MP3 players must not be used when operating the machine • The following protective clothing will be worn: Protective Footwear & High Visibility clothing. Hard hat, gloves, & eye protection. • Do not stand within the entrapment area around the dumper • The dumper must be left in a secure manner when not in use; switch off the engine. Keys should be removed to prevent unauthorised use.		Driver
Installation of reinforcing Lifting & carrying of steel cages can result in: 1. Sprains / strains to muscles in the back, arms, legs and in hernias 2. Dislocations 3. Fractures 4. Lacerations & crush injuries to hands, fingers, legs & feet Risks are increased when ground conditions are slippery or uneven, when carrying distances are greater than 10m or when obstacles are present en-route. Eye injuries caused by flying tie wire following cutting with nips Cuts & abrasions to hands		• All crew members will undertake manual handling training & use good lifting techniques; • Hard hats, Hi-vis clothing, Eye protection, gloves and steel toe capped boots to be worn at all times; • The work area should be cleared of obstructions and trip hazards. • Wherever possible, manual handling of steel cages should be avoided. • Consider the task at hand & plan ahead: • Avoid lifting & carrying by using mechanical means such as excavators to transfer cages from the preparation area to its final position • If possible, excavate one section of the foundations, install the steel cage with a machine; move back, excavate another section of foundations and install next section of steel cage. • Engineers can help reduce the load by designing the job with shorter sections of steel, joining these together by splicing. • Reduce the carrying distance by preparing cages in close proximity to final positioning • Reduce impact on individuals by team handling of cages. Staff should be equally spaced along the cage. • Trestle tables should be used to reduce the distance that cages are lifted. Trestle tables should be placed on firm level ground		
Concrete Pour	High	• Access routes for vehicles will be agreed with the Main Contractor before work commences	Low	All staff

• 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)		• 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, boots/wellingtons, overalls / waterproof clothing. (Shorts will not be allowed) and arms and legs will be covered. • 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 • Where wheelbarrows are used the site will be kept clear of obstructions, and the wheelbarrows will not be overloaded. • 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.		
Security • Unauthorised use of plant by other contractors or trespassers • 3rd party damage ; • Theft of plant equipment and materials	Medium	To reduce risk of theft of plant & equipment the following must be followed: • Using cab guards if fitted • Lock small tools that are on hire in the van or secure store every night • Batteries to be removed where possible • 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 Westbuild are responsible for the site, adequate security fencing and sufficient number of construction/mandatory warning signs will be deployed	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
Environmental Assessment		Risk rating	Control Measures	Residual risk

Mobilisation & deliveries - HGVs can block side roads causing delays however there is the potential for noise & disruption to local community particularly during early deliveries to avoid peak traffic. - If 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 - Wheel washes & cleaning down plant prior to transport if required - Use low emission fuels, ADBLUE. Switching vehicles off when not in use	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 brownfield / 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
Mobile plant operations - Exhaust emissions from all mobile plant. Black smoke is likely from poorly maintained machinery - Cranes use large volume of fuel during operations - Noise & vibration nuisance issues when working in urban areas, close to existing properties	Medium	- Servicing of machinery - Switching off plant when not in use - Sequencing of deliveries to ensure multiple lifting of beams is prevented - Restricted hours of operation - Noise levels from all plant will be reduced whenever reasonably practicable. All plant will be fitted with efficient silencers	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 bunding - maintenance of plant & machinery	Low
Fuel storage / refuelling / use - Each crew on site will stock varying quantities of fuel & oils up to 900 litres - Poor storage of fuel & spills during refuelling of excavators can result in pollution of drains, sewers & watercourses and land contamination - Also potential for vandalism / trespass to result in spills;	High	- Storage in approved bunded containers (at least 10m away from watercourses) Protection of drains where required - Bunded tanks must be vandal proof and secured - Careful refuelling to prevent spills; use of funnels, drip trays under static plant & provision of spill kits.	Low

COSHH ASSESSMENT

Minimal risk associated with these substances during normal use/operations. The controls that have been identified are adequate for the type of work & the quantity / nature of the substances encountered. Products are generally used outdoors or in areas where good ventilation is not a problem, therefore it is unlikely that exposure limits will be exceeded during normal use, or in the event of an accidental release. **Where products are being used in a manner different from the way described, a separate risk assessment will be needed**

Substance	Hazard classifications	Risks to health & environment	Precautions
Readymix Concrete	 	- Cement has irritant and corrosive properties, especially when wet, towards the skin & eyes. - Prolonged & repeated exposure to wet cement may also lead to cement dermatitis developing. Prolonged & repeated exposure to cement dust may lead to chronic productive cough (bronchitis).	- Employ good hygiene practices – regularly washing the skin with warm water and soap, and drying the skin afterwards. Use facilities for drying clothes and change clothes regularly. - Contact with skin and eye should be avoided by wearing impervious protective clothing, including overalls with long sleeves and long trousers. Safety glasses must be worn to protect from splashes.
<i>Diesel & Exhaust fumes</i>	  	- Inhalation of vapours and exhaust fumes can cause irritation of your eyes & respiratory tract; headaches and convulsions. These effects are generally short term and should disappear when you are away from the source of exposure. - Prolonged or repeated contact with your skin can cause de-fatting & in some cases, dermatitis. - Prolonged exposure to exhaust fumes, in particular blue or black smoke, could lead to coughing, chestiness and breathlessness. - Ingestion will lead to irritation of the mucous membranes, throat and stomach, nausea and vomiting. Liver and kidney damage is possible.	- Turn off engines when not required; - Do not breathe vapours- all re-fuelling to be carried out in well-ventilated areas- preferably outdoors and away from sources of ignition. Funnels should be used - Store in well ventilated areas away from naked lights & heat sources. - Store in bunded bowsters or jerry cans. Drums must be stored upright in a bunded area. Do not allow to enter water supplies or soil. - Do not eat or smoke in areas where there is likely to be exposure; - Employ good hygiene practices. - Site powerpacks in well ventilated areas. Use mechanical ventilation &/or tail-pipe filters when working in poorly ventilated areas