

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
Conducting electrical maintenance works: Electric shock to personnel Fire causing injury to personnel or damage to equipment Overloaded sockets Damaged cables	Low	Negligible	<u>3</u>	<p>When conducting maintenance works, always work with 'dead' systems where possible. Never rely on someone else to check whether the electrical system is live or dead always check it you using the voltage testers.</p> <p>Where 'live' work is required, rubber gloves and rubber mats shall be used, two personnel must always be in the work area</p> <p>Double insulated tools shall be used when working with electricity.</p> <p>Never conduct external electrical maintenance works in wet weather.</p> <p>Regular and frequent checks shall be made for signs of damage to, or interference with equipment, wires and cables.</p> <p>Wiring connections to plugs shall be properly made shall be provided where necessary to cover all power outlets.</p> <p>If a cable repair is required, the proper connectors shall be used, taped joints are illegal and shall not be carried out by employees.</p> <p>All maintenance works shall be supervised by a qualified electrician., so that the cable grip holds the cable firmly and prevents the earth from being pulled out.</p>

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

<p>Conducting electrical maintenance works: <u>(cond't)</u></p>				<p>Screened cables and ELCB protection devices</p> <p>When working with electricity, always treat the area as 'live' until verified 'dead'. There is no exception to this rule.</p> <p>Use 110v electrical systems with double insulation and all insulated tools.</p> <p>RCD's shall be provided where equipment is used at mains voltage and that screened cables are also used.</p> <p>Plugs, sockets and all such fittings shall be of a high standard and sufficiently robust for their proposed use.</p> <p>Fuses, circuit breakers and other devices shall be correctly rated for the circuit they protect.</p> <p>Main switches shall be readily accessible and clearly identified.</p> <p>Avoid flashover by ensuring that no part of any machine or ladder etc, goes within 10m of a power line, unless already authorized and the power line has been protected.</p> <p>When leaving a job, employees are responsible for ensuring that access to electrical dangers is prevented, keep distribution boards covered and closed, and if possible locked with the key held by a responsible person.</p> <p>Apprentices shall not be left working unsupervised at a work location.</p>
---	--	--	--	--

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

<p>Use of Electrical Equipment & Power Tools</p> <p>Electric shock to personnel Fire causing injury to personnel or damage to equipment to the fingers or hands</p> <p>Eye injury from dirt, grit or other foreign objects Hearing damage, Headaches or Cuts / amputations dizziness from noise exposure</p>	<u>Low</u>	<u>Negligible</u>	<u>3</u>	<p>All portable electrical equipment shall operate at 110volt. Only properly earthed or double insulated tools shall be used.</p> <p>All portable electrical equipment shall be connected to a power source that has earth leakage protection.</p> <p>All power tool operators shall be trained in the safe use of the power tools and shall always select and use the correct power tool for the job.</p> <p>Electrical equipment shall be maintained in good operating condition and only operated with the safety guards in place.</p> <p>Always check electrical leads on equipment before use and make sure they are in good condition with no exposed wires. Faulty power tools shall be taken out of service immediately and sent for repair.</p> <p>Do not use wet electrical equipment or leave leads trailing on wet ground. Equipment should be kept dry and clean.</p> <p>Correct personal protective equipment must be worn when operating power tools eg: hearing protection and eye protection or full face shield etc.</p> <p>Disconnect tools from power supply before making any adjustments, repairs or fitting new blades or points and replace guards before reconnection.</p>
---	------------	-------------------	----------	---

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
<p>Use of hand tools</p> <p>Cuts and bruises mainly to fingers and hands</p>	Low	<u>Negligible</u>	<u>3</u>	<p>Workers shall always select and use the correct hand tool for the job.</p> <p>Never use your fingers to line up holes etc for hammering.</p> <p>Tools shall be maintained in good working condition, report any faulty tools to the Foreman.</p> <p>When using sharp objects always work away from your body.</p> <p>Where possible wear gloves to prevent cuts, splinters and burns to your hands.</p>
<p>Manual Handling</p> <p>Back injury, muscle stress or strain</p>	<u>Low</u>	<u>Negligible</u>	<u>3</u>	<p>Assess weight before lifting, use lifting aids eg: trolleys, teleporter or forklift on site etc where possible.</p> <p>If lifting aids cannot be used for big, heavy or awkward objects, carry out team lifts.</p> <p>If an object is too heavy for you, do not lift it, report the problem to Ray Trimble who will find a suitable and safe solution.</p> <p>All personnel, where required, shall be trained in correct manual handling techniques.</p> <p>When lifting always bend knees, keep back straight and load close to the body.</p>

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
Manual Handling (cond't)				<p>Prior to lifting, always check for a route free from trip or fall hazards.</p> <p>Always wear the correct personal protective equipment eg: safety boots to reduce foot injury from falling objects, wear safety gloves to protect against sharp or hot objects etc.</p>
Housekeeping Standards at work locations	<u>Low</u>	<u>Negligible</u>	<u>3</u>	<p>Proper storage for tools and equipment and facilities for rubbish removal shall be arranged with the Client prior to commencement of work on site.</p> <p>Tools & equipment shall be kept off the floor in designated toolboxes and storage areas if not in use.</p> <p>Do not run leads and cables across entries, exits, stair access ways or across general walk ways. Where possible, run leads and cables overhead if there is no risk from moving plant & machinery, or else, run leads along the sides of walkways and secure them in place to prevent trip hazards.</p> <p>Ensure appropriate barricading and signage is in place to prevent unauthorized access to work areas.</p> <p>Work areas shall be tidied and left in a safe manner at the end of every day.</p> <p>When using welfare facilities at a client's premises, each</p>

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

Housekeeping Standards at work locations (cond't)				employees is responsible for ensuring that they leave the facilities as they found them.
--	--	--	--	--

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

Working at heights	<u>Low</u>	<u>Negligible</u>	<u>3</u>	<p>When working at heights, where possible a safe enclosed working area eg: such as scaffold or mobile scaffold with hand rail, mid rail, toe-boards and secure ladder access in place shall be used.</p> <p>If an enclosed working area is not possible, then at an unprotected height harnesses shall be worn by workers and hooked on at all times.</p> <p>When working from man boxes and hoists, a safety harness shall be worn and hooked on at all times.</p> <p>Ladders should only be used as a means of access, not for long term or frequent work at height. Always select the right ladder for the job ie: length of ladder, type of ladder for electrical work etc.</p> <p>Extension ladders should be tied off to maintain stability. If it is not possible to secure the ladder then one person must hold the ladder at all times while the other person is on it.</p> <p>When working at heights, the area underneath shall be barricaded off and appropriate warning signage in place eg: 'men working above – do not enter'.</p> <p>Workers shall ensure that tools are kept secure while working at heights.</p> <p>Where work on roofs is required, a roof survey shall be carried</p>
---------------------------	------------	-------------------	----------	--

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

Working at heights (cond't)				<p>out in liaison with the client to determine areas where fragile roofing may exist and decide on the safest means of access on the roof. All employees shall then be trained in safe access methods to and from the roof and also while working up on the roof.</p> <p>Work at heights will not take place in adverse weather conditions eg: high winds, rain, frosty conditions etc.</p> <p>Employees who are not comfortable working at heights should let Ray Trimble know immediately so that they can take appropriate actions.</p>
------------------------------------	--	--	--	--

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
Working with Electricity in General	Low	Major	3	<ul style="list-style-type: none"> • When conducting maintenance works, always work with 'dead' systems where possible. Never rely on someone else to check whether the electrical system is live or dead, always check it yourself using the voltage testers. • Where 'live' work is required, rubber gloves and rubber mats shall be used, two personnel must always be in the work area. • Double insulated tools shall be used when working with electricity. • Never conduct external electrical maintenance works in wet weather. • Regular and frequent checks shall be made for signs of damage to, or interference with equipment, wires and cables. • Wiring connections to plugs shall be properly made, so that the cable grip holds the cable firmly and prevents the earth from being pulled out. • Screened cables and ELCB protection devices shall be provided where necessary to cover all power outlets. • If a cable repair is required, the proper connectors shall be used, taped joints are illegal and shall not be carried out by employees. • All maintenance works shall be supervised by a qualified electrician.

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

Working with Electricity in General (cond't)				<ul style="list-style-type: none"> When working with electricity, always treat the area as 'live' until verified 'dead'. There is no exception to this rule. Use 110v electrical systems with double insulation and all insulated tools. RCD's shall be provided where equipment is used at mains voltage and that screened cables are also used. Plugs, sockets and all such fittings shall be of a high standard and sufficiently robust for their proposed use. Fuses, circuit breakers and other devices shall be correctly rated for the circuit they protect. Main switches shall be readily accessible and clearly identified. Avoid flashover by ensuring that no part of any machine or ladder etc. goes within 10m of a power line, unless already authorized and the power line has been protected. When leaving a job, employees are responsible for ensuring that access to electrical dangers is prevented, keep distribution boards covered and closed, and if possible locked with the key held by a responsible person. Apprentices shall not be left working unsupervised at a work location.
---	--	--	--	--

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

Electrical testing and commissioning	Low	Negligible	3	<ul style="list-style-type: none"> When conducting electrical testing and commissioning, planning shall be conducted to include coordination with other contractors in the work area and those in control of the workplace to ensure that they are fully aware of the work to be carried out. Only competent personnel with suitable test equipment, correctly calibrated, shall carry out testing and commissioning works. Only authorized and competent electricians who have been provided with all of the information relevant to the work shall carry out testing and commissioning.
Installation and maintenance of motors, conveyors, etc	Low	Negligible	3	<ul style="list-style-type: none"> Prior to carrying out installation, servicing or maintenance works, liaise with the Client to see if they have a work permit system which needs to be followed. If the client does not have a work permit system, then EFFECTIVE ELECTRIC's own work permit system shall come into affect. Refer to safety procedure 9.0 Work Permit Procedure & procedure 10.0 Safe Lock Out and Shut Down of Equipment. Ensure machinery being serviced or maintained or moving components adjacent to new installations has been shut down, the machine turned off and then isolated at the main switch on the wall or at the control panel. Ensure shutdown tags have been affixed to all control points for the machine and that the normal operator is aware of the shutdown. When works are finished ensure all tools and equipment are removed from the work area and that all guards on moving components are put back in place.

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

Noise	Low	Negligible	3	<ul style="list-style-type: none"> Hearing protection (in the form of ear plugs or ear muffs) shall be made available to all employees, it is the employees responsibility to maintain the equipment in good clean condition and use it as required. Hearing protection must be worn at all times when working with noisy plant or equipment. Reduce noise levels at source-design, use quieter process, engineering controls, absorbent material etc. Delimit areas where noise levels normally exceed at least 80dBa Enclosure of the machine when the noise level is too high Noise levels to be monitored regularly Provide (at 80 dBa) and ensure use (at 85 dBa) of sufficient ear protectors. All plant and machinery to be fitted with silencers where practicable Adequate warning signs will be erected. Regulations: Control of Noise at Work regulations 2005 SI 1643
Walking around work sites	Low	Negligible	3	<ul style="list-style-type: none"> When walking around out on site wear the required site PPE including high visibility vests to make yourself more visible to plant and equipment operators. Never walk in front or behind any moving equipment without first getting the attention of the operator and letting them know you are in their work area. Ensure site procedures are followed such as sign in/out, correct PPE, not entering unauthorized areas, not interfering with equipment, not walking underneath raised loads or lifting machinery in operation etc

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood¹</u> <i>High/Intermediate/Low</i>	<u>Severity¹</u> <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3¹</i>	<u>Controls for this operation:</u>
--	---	--	---	-------------------------------------

Access and Egress	Intermediate	Major	2	<p>Controls:</p> <ul style="list-style-type: none"> ● Ensure passageways are kept clean and clear esp. for emergency services. Never block access and egress routes with materials and equipment. ● Plan and organise work so that alternative routes are provided should access and egress routes need to be used to carry out work ● Inform all employees of access and egress routes and any changes to these throughout the course of any project ● Secure perimeter fencing; gates locked; separate pedestrian access; controlled security man entry checks (certs./PPE etc) ● Adequate night protection: site lighting (and perimeter safety signs); plant immobilised. ● Adequate access & task lighting must be provided when work is carried on after dark or inside buildings. ● Dangerous substances not in actual use secured in lock-up sheds / containers/ heavy boxes to prevent misuse/ theft ● All ladders either removed to lock-up sheds/ containers or bottom-boarded-and-tied to prevent intruders climbing them ● Movement of site vehicles controlled by guides / flagmen / traffic lights at designated areas (crossings) / reversing ● All vehicles on site to be fitted with safety auxiliary devices and reversing aids e.g. hazard warning flashing beacons & reversing alarms (see Schedule 6 SHWWCR 2006). ● All persons on site wear hard hats, safety boots, overalls/equivalent, high-visibility clothing, gloves and eye
--------------------------	--------------	-------	---	--

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

<p>Access and Egress (cond't)</p>				<p>protection</p> <ul style="list-style-type: none"> ● Site roadways and designated danger areas adequately railed / condoned-off and sign-posted ● Site tidiness maintained by cleaning up during work, at end of day and(major) weekly to avoid slips and trips – Clean as you go. ● No protruding nails allowed: all such nails must be clawed out or hammered flat so as to foot injuries ● Adequate catch platforms / safety netting / covered pedestrian ways / covered opes to guard against falling objects ● Excavations back-filled as far as possible, or railed-off (guardrails, otherwise high-visibility tape / rope, signage and poles) ● All heavy materials safely stacked / chocked (against rolling) stacked (against collapse) and tied (against high winds) etc. ● Adequate rubbish / waste removal via chutes from high-levels to covered skips, and other skips and bins etc. ● Access restricted to named persons for: confined space entry, hot work, pressure testing, blasting, tunnelling etc. ● Authorised persons named: vehicles, earthmoving eqpmt., cranes, banksmen/slinge
--	--	--	--	---

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

Slips, Trips and Falls	Intermediate	Major	2	<p>Control:</p> <ul style="list-style-type: none"> ● Ensure routes are kept clean and clear. Remove rubble, waste and other materials from access/task routes. ● Use designated routes to and from workplace. ● Site tidiness maintained by cleaning up during work, at end of day and(major) weekly to avoid slips and trips – Clean as you go. ● Assess areas to ensure safe access/task routes e.g that false floors are secured, work machinery for oil leaks etc. ● Avoid walking through areas where surface isn't fully visible e.g. covered in floor protection, pooling of water – risk of opes being covered. ● Vigilance from employees as to the risks from slips trips and falls. ● No protruding nails allowed: all such nails must be clawed out or hammered flat so as to foot injuries. ● All extension leads/electric cables and welding hoses etc. must be suspended safely in areas and/or laid as not to obstruct access/egress paths etc. ● Method of working clearly outlined including scope, routes and housekeeping. ● Ensure boots are kept clean and free of mud, oil, grease, use anti static, oil resistant safety boots. Keep footwear as clean as reasonable practicable; ensure loose mud is removed prior to climbing ladders. – overshoes must have grips on the soles. ● Ensure ladders are set on solid level ground, away from other
-------------------------------	--------------	-------	---	--

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

<p>Slips, Trips and Falls (cond't)</p>				<p>obstructions.</p> <ul style="list-style-type: none"> ● Consider weather conditions when working/accessing roofs, scaffolding, and roadways. ● Tidy up work area after each task. ● Never block access and egress routes with materials and equipment. ● Inform all employees of access and egress routes and any changes to these throughout the course of any project ● Appropriate personal protective equipment to be worn.
---	--	--	--	--

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

Work Environment	Low	Negligible	3	<p>Control:</p> <ul style="list-style-type: none"> ● Assess work areas prior to entering to ensure safe access/ egress, restrictive work areas, containment/plant/equipment overhead & at work levels that may obstruct safe access/ egress ● Adequate lighting to ensure safe access and egress. Task lighting provided at work locations. ● Ensure personal protective equipment is suitable to the work being carried out. ● Wet gear will be provided to those who have to work in wet conditions. ● Suitable facilities provided where employees can take meals and shelter from bad weather. ● An adequately stocked first-aid box will be provided and maintained. ● Site tidiness maintained by cleaning up during work, at end of day and(major) weekly to avoid slips and trips – Clean as you go. ● Work stations, desks and benches will be ergonomically designed. ● Suitable toilets, washing and drying facilities available on site.
-------------------------	-----	------------	---	--

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood¹</u> <i>High/Intermediate/Low</i>	<u>Severity¹</u> <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3¹</i>	<u>Controls for this operation:</u>
--	---	--	---	-------------------------------------

Material Storage	Low	Negligible	3	<p>Control:</p> <ul style="list-style-type: none"> ● Ensure that minimum quantities of materials supplied to site in line with the programmed works, thus reducing quantities of materials stored which prevent unnecessary damage. ● Ensure delivered material is correctly packaged e.g. cable drums in good condition, bales uni-strut, pipes, containment etc are correctly bound. Return or make safe any materials incorrectly packaged. ● Deliveries will be scheduled at agreed times during normal working hours. Delivery drivers must be accompanied by inducted personnel. ● Ensure that all material storage areas are level and stable. ● Follow manufacturer's recommendations with respect to stacking requirements. ● For hazardous materials, Material Safety Data Sheets must be available. ● Palletised loads should not exceed two pallets in height. ● Loads must be lifted correctly, manual handling information and training to be provided to employees. Store heavy/awkward load on bottom/middle shelf. Only store light/manageable loads at height. ● Whenever practicable mechanical lifting/delivery equipment to be provided minimising manual handling. ● Compressed gas cylinders will be stored upright, away from accommodation and construction activities. ● Stacks of cylindrical objects such as pipes, cable drums to be
-------------------------	-----	------------	---	---

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

Material Storage (cond't)				stabilised using chocks etc. <ul style="list-style-type: none"> ● Material stacks should be limited in height to ensure stability, no more than 2m. ● Drums and containers must be clearly marked to indicate contents. ● Secured storage provided for all hazardous materials to prevent unauthorised access. ● Trays or bunds provided where necessary beneath containers to prevent ground contamination. ● Guardrails will be fitted to storage areas where persons could fall ● Hazardous materials e.g. highly flammable liquids, explosives (hilti cartridges) should be stored separately and their issue controlled. ● Deliveries by HIAB should be monitored and controlled and all lifting operations should not pass over personnel, plant and equipment or accommodation. ● Access routes must be kept clean and clear. Ensure good housekeeping practices are maintained. Clean as you go policy.
---	--	--	--	---

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

First Aid	Low	Negligible	3	<p>Controls:</p> <ul style="list-style-type: none"> ● Only Competent Occupational First Aiders – on successful completion of 3 day Occupational First Aid Course and/or Refresher (every 2 yrs) with assessment by Instructor. ● Ensure provision and regular inspection of fully stocked first aid boxes (see Appendix 3 in Safety Statement) ● Ensure that all employees know the location of the First Aid Equipment and competent First Aider-signage, inductions. ● All employees must report all injuries and be treated by competent first aid immediately ● All wounds must be cleaned and kept covered – whether work related or received outside of work. ● First Aiders to ensure they wear disposable/sterile gloves at all times – to avoid direct contact. ● Sterilise re-usable first aid equipment before and after use with sterilised wipes e.g. scissors, safety pins. ● Wash infected area thoroughly and seek medical advice if accidental contact is made with open wounds, hazardous, corrosive, oxidising and/or poisonous substances. ● Ensure use of ventilation equipment (to be provided) to avoid direct mouth to mouth contact ● Ensure communication links are available with external emergency services – mobile phones, telephones, emergency numbers posted. ● Existing premises may have an internal Occupational Health Nurse/Doctor/First Aid Room available. All emergency plans must incorporate existing features into this plan.
------------------	-----	------------	---	--

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

Falling Objects	Low	Negligible	3	<p>Controls:</p> <ul style="list-style-type: none"> ● Employees prohibited from working above or below other employees. ● Safety helmets, boots and glasses to be worn at all times. ● Guardrail systems with toe boards are required where there is a risk of materials falling. ● Tag lines to be used for hand tools used if applicable –working above false ceilings ● Tools to be lifted by rope to areas at height. ● Suitable and adequate storage facilities for materials – shelves, brackets, cages, doors, signage, clear access and egress etc. ● Secure all materials being transported with ratchet straps, ropes etc. ● Materials to be secured from winds and being blown away. ● Only approved and tested equipment to be used. Inspect test certificates before commencement of work. ● Ensure safe working load (SWL) is clearly marked. ● Ensure a safe system of work is in place. Controlled lifting zones, barriers, signage, banksman, no entry to unauthorised personnel. ● No person to stand underneath a lifting operation under any circumstances. ● Ensure employees are trained in proper lifting procedures. ● Lifting work to be supervised by the Site foreperson or his/her nominated Charge hand.
------------------------	-----	------------	---	--

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

Falling Objects (Cond't)				<ul style="list-style-type: none"> Lifting equipment inspected daily and any defects reported immediately to the Site foreperson. Regular service to be carried out on lifting equipment and records kept in the site safety file in the site office. Site tidiness maintained by cleaning up during work, at end of day and(major) weekly to avoid slips and trips – Clean as you go.
------------------------------------	--	--	--	---

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood¹</u> <i>High/Intermediate/Low</i>	<u>Severity¹</u> <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3¹</i>	<u>Controls for this operation:</u>
--	---	--	---	-------------------------------------

Scaffolding	Low	Negligible	3	<p>Controls:</p> <ul style="list-style-type: none"> • (See Work at Height Risk Assessment) • Kirby Group will only use pre-qualified & approved Scaffolding Contractors • All scaffolding to be erected, altered and dismantled by and/or under the supervision of a competent scaffolders with adequate CSCS card (Basic Scaffolder – up to 7m, Advanced Scaffolder – up to 7m and above) • Personnel erecting, altering or dismantling scaffold must wear suitable P.P.E. e.g. helmet safety harness and fall arrest lanyard etc. • Scaffolding must be constructed of sound, strong material. Tube should not be split, cracked, rusty, bent or distorted, and the timber used for boarding must be the right type - designed and manufactured in accordance with IS/HD 1000 • Scaffold material should never be thrown up or down. All materials should be lowered or raised hand to hand, using rope hoists, baskets or cranes. • Access ladders to the scaffold platform shall be of sound construction, of adequate strength, properly maintained, properly secured by the stills to prevent slipping or falling, be set on solid level ground and extent 1m above its landing. • Every side of a working platform at a height 2m or more is to be protected with suitable rigid handrails, mid rails and toe boards. • All loading bays should be correctly guarded and of the correct load type for the task required.
--------------------	-----	------------	---	---

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

Scaffolding (cond't)				<ul style="list-style-type: none"> All scaffolds must be fully boarded. Boards must be of equal thickness, free from defect, unpainted and of suitable strength to support the loads required of them. Overlapping boards is not allowed. Boards must be butted and double transoms used. No board must overhang by over 4 times its thickness and less than 50 mm. All scaffold working platforms must be of 5-board width. Scaffolds must be properly tied in. Care must be taken by scaffolders when erecting scaffold not to block essential services such as access manholes, fire hydrants emergency exits etc. or be erected in the vicinity of overhead power lines. Incomplete scaffolding is to be identified by suitable warning signs (remove "scafftag") and that access points have barriers across them. Access ladders must be removed or blocked off when the site is not supervised – to prevent intruders/unauthorized persons from accessing scaffold A Handover Certificate must be provided to the Supervisor before scaffold can be used. The supervisor must inspect the scaffold and ensure that it is fit for the purpose to which it was erected All scaffold must be inspected Pre use, Weekly (Documented on WH1 form and scaff tag), after modification, after alteration and adverse weather by competent scaffolder inspector to check that all parts are serviceable and properly secured to prevent accidental displacement. Records of inspections to be kept in the Site Safety File in the site office. Scaff Tags must be used at the access point on the scaffold.
-----------------------------	--	--	--	--

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

Scaffolding (cond't)				<ul style="list-style-type: none"> Employees must report any defects in scaffolding immediately to the site foreperson. Never store materials above toeboard unless material guards are fitted to prevent any materials falling from the scaffold on to persons below. All platforms and gangways should be kept clean and free from rubbish or obstructions. The scaffold will be checked periodically to ensure that the loads are within the permissible limits. Ensure safe access and egress – housekeeping, storage of equipment, secure ladders etc. Ensure emergency procedures are implemented, communicated and adequate resources for rescue training and equipment are allocated.
-----------------------------	--	--	--	---

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

Mobile Elevated Work Platform (MEWP)	Low	Negligible	3	<p>Controls:</p> <ul style="list-style-type: none"> • (See Work at Height Risk Assessment) • Seek Advice and arrange type of MEWP required with the supplier prior to ordering • Only authorised competent employees allowed to operate M.E.W.P. • Only approved and tested equipment to be used. Thorough inspection test certificates (GA1) before commencement of work. 6 Monthly thorough examination to be carried out by competent fitter (typically supplier) • Altering or disabling of interlocks or other safety devices is prohibited. • Inform passengers of hazards before operating the MEWP. Passengers must check all routes before moving and inform operator of hazards. • Safety harness / Fall Protection must be used and attached to secure anchorage point at all times while operating M.E.W.P. • Avoid uncontrolled operation of MEWP through entanglement of lanyard in controls or similar hazard by activating the emergency stop when not in use. • Safe working load (SWL) not to be exceeded. If the work involves removing equipment or materials from a structure, don't forget to allow for the extra weight – check decal plate for SWLs. • Never access out of MEWP or work from a position above the toeboard in the MEWP– no ladders, hop ups etc.
---	-----	------------	---	---

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

Mobile Elevated Work Platform (MEWP) (cond't)				<ul style="list-style-type: none"> ● Outriggers and stabilisers are to be used if provided ● Access gate/drop bar must be closed while operating platform. ● Distribute load evenly. Follow manufacturers instructions especially using extensions in scissor lifts (typically one person only) ● The task area to be barriered off, signage erected and watchman on ground level to control traffic and pedestrians ● A pre-check of the task area is to be carried out to identify any potential hazards. Check all routes before moving – up, down and all around. ● Always keep hands and body parts within the platform when moving – risk of crush injuries if hands are rested outside the machine. Always wear helmet and gloves ● Platform is not to be left unattended in the raised position. ● Never drive scissor lift with platform raised – inching along only if routes are clear. ● Be prepared to stop work and return to ground level if the wind speed or weather conditions deteriorate to an unacceptable level – check limits on decal plate ● Battery charging to take place in a well ventilated area free from sparks and flame. If charging is restricted to enclosed area ventilate before entering ● Any problems or malfunctions must be reported immediately to site supervisor ● A pre visual check – WH1/GA3 (MEWP daily check sheet) to be carried out daily before use and the report to be kept in the site Safety File in the site office.
---	--	--	--	---

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
Mobile Elevated Work Platform (MEWP) (cond't)				<ul style="list-style-type: none"> Ensure safe access and egress – housekeeping, storage of equipment, secure ladders etc. Ensure emergency procedures are implemented, communicated and adequate resources for rescue training and equipment are allocated. Alert others (visitors, public) to risks associated with the work carried on – signage, barriers.

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

Vibration	Low	Negligible	3	<p>Controls:</p> <ul style="list-style-type: none"> ● Alternative work methods which eliminate or reduce exposure to vibration. ● Mechanise or automate the work. ● Select the lowest vibration tool that is suitable and can do the work efficiently. ● Limit the use of high-vibration tools wherever possible. ● Improve the design of workstations to minimise loads on employees' hands, wrists and arms caused by poor posture. ● Use devices such as jigs and suspension systems to reduce the need to grip heavy tools tightly ● Appropriate maintenance programmes for your equipment to prevent avoidable increases in vibration (following the manufacturer's recommendations where appropriate). ● Do not use blunt or damaged concrete breaker and chipping hammer chisels and replace consumable items such as grinding wheels, so that equipment is efficient and keeps employee exposure as short as possible. ● Limit the time that your employees are exposed to vibration. ● Plan work to avoid individuals being exposed to vibration for long, continuous periods – several shorter periods is preferable. ● Where tools require continual or frequent use, introduce employee rotas to limit exposure times (you should avoid employees being exposed for periods which are long enough to put them in the high risk group).
------------------	-----	------------	---	--

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

Vibration (cond't)				<ul style="list-style-type: none"> Ensure new equipment purchased will have reduced vibration levels – vibration suppression handles. Use of Vibration Absorbent Gloves Maintain Vehicles and ensure that regular maintenance of vehicle is carried out and that suspension is in good working order.
---------------------------	--	--	--	--

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

Vehicle Movement on Site	Intermediate	Major	2	Controls: <ul style="list-style-type: none"> • Vehicles routes will be planned to avoid danger to pedestrians, contact structures or overhead power lines (goalposts) and to be clear of all excavations. • Vehicle operating areas and traffic routes will be clearly signed and fenced off where practicable. • Drivers will ensure loads are placed evenly in vehicles and that the vehicle is not overloaded. • All employed and contract drivers will hold a current driving license, a valid CSCS card where applicable and have complete FAS Safe Pass. • Movement of site vehicles controlled by guides / flagmen / traffic lights at designated areas (crossings) / reversing • All vehicles on site to be fitted with safety auxiliary devices and reversing aid's e.g. hazard warning flashing beacons & reversing alarms (see Schedule 6 SHWWCR 2006). • Where audible warnings are not fitted to vehicles, spotters will be used to give warnings to others when vehicle is reversing. • Authorised persons named: vehicles, earthmoving equipment, cranes, and banksmen/slinger. • Vehicles used for removal of site waste must have the appropriate permit from the local authority. • Vehicles intended for use on the public highway will comply with the current licensing requirements. • Speed restrictions will be displayed and enforced as necessary.
---------------------------------	--------------	-------	---	--

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

Vehicle Movement on Site (cond't)				<ul style="list-style-type: none"> ● Seats are to be maintained to minimise unhealthy postures and vibration. ● Deliveries to site will be supervised and planned. ● TELEPORTERS ● Drivers must be trained and certified (FAS Safe Pass, CSCS or equivalent). ● All vehicles on site to be fitted with safety auxiliary devices and reversing aids e.g. hazard warning flashing beacons, reversing alarms, convex mirrors (see Schedule 6 SHWWCR 2006). ● Ensure good housekeeping standards are maintained in the teleporter at all times. Remove rubbish from dashboard and driver operating area. Remove all bottles, cans etc. ● Teleporters will be kept in good repair. Drivers are reminded of their duty to report all defects in plant and equipment to their supervisor immediately. ● Speeding not allowed. Driver to be made aware of site specific speed limits. ● Reverse only when there is adequate rear view visibility. ● Do not carry passengers. ● Never use mobile phone while driving. ● Only load when teleporter is level and the handbrake engaged. Driver to dismount and assess and examine load. ● Drivers will ensure loads are placed evenly in vehicles and that the vehicle is not overloaded. ● Ensure that when new equipment is procured it complies with relevant standards as regards noise, vibration, roll-over protection and that it is self-starting.
--	--	--	--	--

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

Vehicle Movement on Site (cond't)				<ul style="list-style-type: none"> Ensure seat belt is provided and used Secure vehicle at all times when unattended LIFTING A LOAD. Teleporter, safe load indicator and lifting gear must be inspected at the start of each shift to ensure it is in good working order. Lifting gear and equipment to be stored and maintained correctly All rigging to be completed by trained rigger, competent, qualified banks man and riggers to complete all rigging operations. The teleporter driver is responsible for the correct operation of the machine in accordance with the manufacturer's instruction and within agreed safe systems of work. The rated capacity of all lifting appliances shall not be exceeded. Certified lifting equipment and lifting gear to be securely attached to load. Inform all personnel involved in the lift and in the area of the safety requirements, information etc. To avoid the entrapment of hands or fingers during rigging operations the slinger/signaller will ensure that the lift will only be started once the load has been correctly slung and the risk of entrapment eliminated The driver shall take care to prevent pendulum swinging of the load by careful control of the operating motions to match the swing of the load and to keep it under control at all times. Tag lines shall be used where necessary and where the load presents a wind catching area. Travel should always take place with the load near the ground level so that load swinging can be controlled.
--	--	--	--	---

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

<p>Vehicle Movement on Site (cond't)</p>				<ul style="list-style-type: none"> The driver shall have a clear and unrestricted view of the load and operational area, if not, the driver shall act under the directions of the slinger/ signaller who shall be positioned to have a clear and uninterrupted view. The driver and/or the signaller shall ensure that loads and the teleporter hoist ropes are well clear of any obstructions. Teleporter driver will only take approved signals from qualified/competent slinger/ signaller. (Except emergency stop) Out riggers must be used where provided and load displaced using suitable load spreaders Two way radios shall be used when the slinger/ signaller is not visible to the driver. OTHER CONTRACTORS/PUBLIC. Inform all employees of access and egress routes and any changes to these throughout the course of any project. All employees shall be made aware of site traffic systems e.g. pedestrian crossings, traffic lights, stop and yield signs. All employees to be aware of the areas on site which have heavy site traffic. Remember if you can't see the driver he/she can't see you. Ensure you get the drivers permission to gain access through working zone. Barriers should be placed around area of work concerning teleporters. Signage should be in place in advance of working zone to make pedestrians aware of dangers in advance. If any part of the lifting operation exceeds the site boundary, clear warning barriers and notices must be used to protect the
---	--	--	--	--

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood¹</u> <i>High/Intermediate/Low</i>	<u>Severity¹</u> <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3¹</i>	<u>Controls for this operation:</u>
--	---	--	---	-------------------------------------

Vehicle Movement on Site (cond't)				<p>public.</p> <ul style="list-style-type: none"> ● Area under/around lifts and cranes to be cordoned off. All personnel are to be made aware of lifting operation and must stay clear of designated lifting zone. Site traffic to be diverted if necessary. ● All personnel to wear the necessary P.P.E. Hi viz clothing must be worn at all times.
--	--	--	--	--

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

Abrasive Wheels	Low	Negligible	3	<p>Controls:</p> <ul style="list-style-type: none"> ● Hot work Permit system must be in place when required. ● All necessary fire prevention equipment i.e. fire blankets, powder/co2 fire extinguishers, will be checked and must be in place prior to the commencement of work. ● Working area to be assessed before the work is carried out to ensure sparks are kept away from other persons and flammable materials. ● Suitable screens, fire blankets and signs should be readily available to protect flammables and persons from sparks and heat. Protect unmovable items with fire blanket. ● Only competent operatives are to change the discs on abrasive wheels using correct tools. Ensure sufficient operatives trained to change abrasive wheels and discs available at the workplace. ● Unplug items before altering guards, changing discs and maintenance. ● The correct discs for the type of machine, speed (RPM) and material to be cut will be ordered, supplied and used. Ensure details are legible on disc before use (details are stamped onto discs). ● Use disc for its intended purpose – cutting disc for cutting and grinding disc for grinding (do not use chop saw disc for grinding – this may weaken disc causing it to shatter). ● Spindle speeds, identification number and power rating tag to be marked on all grinding machines.
------------------------	-----	------------	---	--

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

Abrasive Wheels (cond't)				<ul style="list-style-type: none"> Equipment and discs shall be visually checked for damage before used by operators. Ensure all safety devices and stops are working correctly and that all auxiliary devices are in place e.g. handles, guards, etc. Users must not use undue pressure, and will use the right disc/wheel. All guards must be correctly positioned and properly adjusted. Secure work item and only use when standing on a firm, level base. Do not wear loose fitting clothing, remove/tie up strings from jackets, hoodies etc. Disc cutters shall only be used when standing on a firm, level base. Appropriate PPE must be worn and in good condition including hearing (ear defenders), eye (full face visor), and suitable breathing apparatus when required i.e. P1/P2/P3 type protection. Operators to ensure that all persons are kept away from areas where sparks or dusts are directed. Protect surfaces from sparks or dust where they or the workplace cannot be moved Ensure abrasive wheels are stored correctly in dry container, in manufacturers packaging on designated timber shelving. Cutting activities to be prohibited within confined spaces, unless adequate ventilation/dust extraction facilities are provided Abrasive wheel tools are to be checked pre-use and monthly (documented) by a competent person.
---------------------------------	--	--	--	---

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

				<ul style="list-style-type: none"> All defects must be reported immediately to your supervisor, equipment must be removed from use until it is repaired or recycled.
--	--	--	--	---

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

Cable Pulls	Low	Negligible	3	<p>Controls:</p> <ul style="list-style-type: none"> ● A pre start survey will be carried out to plan the route, manpower requirements, equipment requirements and identify potential hazards ● Where possible mechanical devices will be used – cable winches, rollers, brake controls, cable socks, draw wires, cable jacks. ● Two persons at a minimum are to set up cable drum on to cable jacks – avoid entrapment of hand between drum and metal parts... ● Set up cable drum on firm and level ground, straight on to the direction of pull and as close as possible to the start of pull, as far as reasonably practical. ● Face drum in correct direction and uncoil from top of drum. ● A brakesman is required on the cable drum to prevent over-run ● Cable pulls will be smooth and maintained at a steady reasonable pace to ensure control is maintained ● Good communications (radios) must be provided and maintained where the cable pull in over a long distance or where the cable pull is taking place e.g. in a multi storey complex, underground cable ducts, chambers or manholes. ● Minimum personal protective equipment requirements including Safety Harness for those working at height. ● The cable pull will be closely supervised and monitored so as to avoid any accidents or incidents
--------------------	-----	------------	---	---

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

Cable Pulls (cond't)				<ul style="list-style-type: none"> Employees to report all defects in procedure and damage to equipment to supervision immediately Never place body parts between cable being pulled and fixed parts/opes within the structure Avoid cutting tie-wraps until the final cable tie operation is complete- risk of cuts and infections from cut ties. Ensure good housekeeping practices, Clean as you go. Avoid long trailing cables and coil up as soon as practical. Remove all offcuts to bins as soon as practical. Do not leave offcuts of cable ties on ground – tidy as you go, place in bags/bins Place barriers and signage around cable pulling set up areas to warn and prevent access of others.
-----------------------------	--	--	--	---

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

Plant/Equipment Installation	Low	Negligible	3	<p>Controls:</p> <ul style="list-style-type: none"> ● All plant/equipment will be installed, used, worked and maintained in a safe condition in order to prevent danger. ● All fixed equipment must be earthed where required. ● Employees must report any defects or damage to plant/equipment immediately to the Site foreperson. ● Under no circumstances should damaged plant equipment be used on site. ● Never work on live plant/equipment – request isolation of energy source from owner/occupier. ● Always use Lock Out Tag Out Procedures. ● Isolate supplies at source and locally. ● Only competent employees to work in live situations. ● Always check for the presence of energy source using correct testing equipment e.g. gas monitors, pressure gauges, voltmeters etc. ● Always verify presence of energy source prior to commencing work, if present discharge e.g. to appropriate vessel, to air, to earth equipment that has been isolated. ● Permits to Work must be obtained before work commences to ensure safe working and freedom from hazards where hazardous substances, pipework under pressure, high-voltage electrical supplies, cables and equipment exist, particularly in installation, maintenance or construction work. ● Instruct employees in the action to take in the event of an
-------------------------------------	-----	------------	---	--

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

Plant/Equipment Installation Cont'd				<p>emergency e.g. switching out the energy source, calling the emergency services and first aid etc.</p> <ul style="list-style-type: none"> • Flameproof plant equipment must be installed and used where flammable vapours are present. • Ensure hoses, crimps, gauges, flanges, plugs, sockets, leads and portable tools and equipment are in good condition. Report defects to Site foreperson immediately. • Provide suitable and adequate personal protective equipment. • Preventative maintenance and inspection programme and records of these kept in the Site Safety File in the site office.
---	--	--	--	---

<u>Severity</u>	<u>Definition</u>	<u>Likelihood</u>	<u>Definition</u>	<u>Risk</u>	<u>Definition</u>
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

Plant/Equipment Installation	Low	Negligible	3	<p>Controls:</p> <ul style="list-style-type: none"> ● All plant/equipment will be installed, used, worked and maintained in a safe condition in order to prevent danger. ● All fixed equipment must be earthed where required. ● Employees must report any defects or damage to plant/equipment immediately to the Site foreperson. ● Under no circumstances should damaged plant equipment be used on site. ● Never work on live plant/equipment – request isolation of energy source from owner/occupier. ● Always use Lock Out Tag Out Procedures. ● Isolate supplies at source and locally. ● Only competent employees to work in live situations. ● Always check for the presence of energy source using correct testing equipment e.g. gas monitors, pressure gauges, voltmeters etc. ● Always verify presence of energy source prior to commencing work, if present discharge e.g. to appropriate vessel, to air, to earth equipment that has been isolated. ● Permits to Work must be obtained before work commences to ensure safe working and freedom from hazards where hazardous substances, pipework under pressure, high-voltage electrical supplies, cables and equipment exist, particularly in installation, maintenance or construction work. ● Instruct employees in the action to take in the event of an
-------------------------------------	-----	------------	---	--

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

Plant/Equipment Installation Cont'd				<p>emergency e.g. switching out the energy source, calling the emergency services and first aid etc.</p> <ul style="list-style-type: none"> • Flameproof plant equipment must be installed and used where flammable vapours are present. • Ensure hoses, crimps, gauges, flanges, plugs, sockets, leads and portable tools and equipment are in good condition. Report defects to Site foreperson immediately. • Provide suitable and adequate personal protective equipment. • Preventative maintenance and inspection programme and records of these kept in the Site Safety File in the site office.
--	--	--	--	---

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

Installation of Containment	Low	Negligible	3	<p>Controls:</p> <ul style="list-style-type: none"> • Co-ordinate routes and access to containment with owner/occupier, PSCS and other contractors • Manual Handling to be reduced by the use of Mechanical Equipment where possible • Task planning to include measures to reduce risks to third parties i.e. liaison with owners, occupiers and other contractors • Avoid work at height, fabricate as much containment on the ground as is possible, put in place measures to prevent the fall of persons, equipment and materials • Use access equipment, tools and other equipment safely and when competent to do so. • Ensure tools and equipment are in good condition. • Tray and trunking supports will be installed along the route where necessary, as per specifications and load ratings. Tray and trunking will be erected on the installed supports. • All support steel work will be cleaned primed and painted after installation. • The tray and trunking will be installed in a continuous run and must be free from burrs. File the cut metal ends and remove all the rough edges etc. Fit uni-struct caps and profile strip on exposed ends. • Ensure all fixtures and fittings are secured properly. • All cuts for bends ties etc will be corrected formed
------------------------------------	-----	------------	---	--

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

<p>Installation of Containment (cond't)</p>				<ul style="list-style-type: none"> Adequate clearance shall be made for other equipment pipe work insulation fireproofing etc. Earth continuity straps shall be fitting at each joint for tray & trunking When the individual route is completed a satisfactory earth continuity test shall be carried out. The QC/QA Engineer shall carry out checks on the installation at each stage and mark up the checklist. The check lists will be included in the handover dossiers. Store containment out of access and emergency routes. Ensure safe access to containment. Tasks are to be barriered off if possible especially when installing containment at heights. Good housekeeping practices must be employed. Clean as you go. Remove off cuts immediately to metal waste lay down. Segregate waste. Appropriate PPE to be provided and used.
--	--	--	--	---

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

--	--	--	--	--

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

Confined Space Training	Low	<u>Negligible</u>	<u>3</u>	Controls: <ul style="list-style-type: none"> • Where possible, eliminate need for entry by selection of alternative methods of work. • Confined space work will only be undertaken and supervised by competent and authorized personnel. • Ensure adequate access is provided and used – ladders secured etc. • Assess ventilation available and local exhaust ventilation requirements, potential of hazardous gases/atmosphere, process by-products, and hygiene welfare facilities. • Inform rescue services of activities. • Documented entry system to apply, permit to work to be completed prior to entry. • Adequate ventilation to be present or arranged. • Detection equipment must be present before entry to check on levels of oxygen and presence of toxic or explosive substances. • The area will be tested before entry and continually during the presence of persons in the confined space. • Tripod, winch and rescue harnesses to be provided. • A communication system with those in the confined space to be established. • Precautions for safe use of any plant or heavier-than-air gases in the confined space must be established before entry. • Necessary PPE and hygiene facilities to be provided for those entering sewers e.g. gloves for contamination, hepatitis vaccines etc. • Flood potential and isolations must be checked. Emergency procedures must be fully developed prior to entry.
--------------------------------	-----	-------------------	----------	--

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

Asbestos Containing Material	Low	<u>Negligible</u>	<u>3</u>	Controls: <ul style="list-style-type: none"> <u>ALWAYS ASK PROSPECTIVE CLIENTS IF ASBESTOS OR MATERIAL CONTAINING ASBESTOS MAY BE ENCOUNTERED.</u> Failure to do so may result in exposure of employees and others. It is essential that, if there is a suspicion that asbestos is present, before any work takes place an analysis by an approved laboratory to establish the asbestos content and type be performed. Samples are only to be taken by trained and competent persons. The HAS Area office must be informed 14 days before the commencement of major work involving removal of asbestos. ALL WORK INVOLVING ASBESTOS WILL BE CARRIED OUT BY A SPECIALIST SUBCONTRACTOR WHO MUST SUPPLY A WRITTEN METHOD STATEMENT PREPARED AND REVIEWED BEFORE THE WORK COMMENCES. Access to work area will be strictly controlled as appropriate. Exposure must not exceed 0.1 fibres per cm sq. over an 8 hr reference period. Asbestos products removed will be double bagged or placed in sealed containers for disposal by specialist contractor. During removal, PPE will be worn as required by specific assessment of the work and the minimum standard will be impervious overalls with hood in addition to respiratory protection. Supportive documentation to be issued to confirm correct removal and disposal.
-------------------------------------	-----	-------------------	----------	---

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk

RISK ASSESSMENT

<u>Hazard Identification</u> <u>Risk Assessment</u>	<u>Likelihood</u> ¹ <i>High/Intermediate/Low</i>	<u>Severity</u> ¹ <i>Significant/Major/Negligible</i>	<u>Risk</u> <i>1/2/3</i> ¹	<u>Controls for this operation:</u>
--	--	---	--	-------------------------------------

COSHH (Control of substances hazardous to health)	Low	<u>Negligible</u>	<u>3</u>	<u>Controls:</u> <ul style="list-style-type: none"> Assess the risks to health from hazardous substances used in or created by your workplace activities Decide what precautions are needed: see www.hse.gov.uk which provides COSHH essentials and Easy steps to control chemicals. Prevent the exposure to substance hazardous to health, change the process or activity so that the hazardous substance is not needed or generated Replace it with a safer alternative Use it in a safer form Adequately control the exposure, use appropriate work processes systems and engineering controls and suitable work equipment and materials in order to minimize the amount of material used or produced. Control the exposure at source & reduce the number of employees and the quantity of hazardous substances used Provide personnel protective equipment (face masks, respirators, protective clothing)
---	-----	-------------------	----------	--

Severity	Definition	Likelihood	Definition	Risk	Definition
Significant (S)	Potential fatality or significant damage	High (H)	Event has occurred or is expected to occur	1	High Occupational Risk
Major (M)	Serious personal injury or equipment damage	Intermediate (I)	Event may occur during lifetime of site	2	Intermediate Occupational Risk
Negligible (N)	Minor or negligible personal injury or equipment damage	Low (L)	Event is not expected / unlikely to occur	3	Low occupational Risk