

Document Owner: HSQE Manager	HEALTH SAFETY AND ENVIRONMENT RISK ASSESSMENT				F546 Issue 1.3 (March 2018) Procedure P520; Filing reference 13.5																																																		
Project Number/Name:	Rock Street FAS - W000125				Assessment No:																																																		
Operation:	Excavation - Open Cut Solution				Date: 17/01/2023																																																		
Location:	MH11 to MH12 - Old A465 Embankment				Review Date: 23/01/2023																																																		
Notes:					Prepared By: C.Maddocks	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td rowspan="5" style="writing-mode: vertical-rl; transform: rotate(180deg);">Likelihood</td> <td>5 Almost Certain</td> <td>5</td> <td>10</td> <td>15</td> <td>20</td> <td>25</td> </tr> <tr> <td>4 Likely</td> <td>4</td> <td>8</td> <td>12</td> <td>16</td> <td>20</td> </tr> <tr> <td>3 Possible</td> <td>3</td> <td>6</td> <td>9</td> <td>12</td> <td>15</td> </tr> <tr> <td>2 Unlikely</td> <td>2</td> <td>4</td> <td>6</td> <td>8</td> <td>10</td> </tr> <tr> <td>1 Rare</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td colspan="2"></td> <td>1 Negligible</td> <td>2 Minor</td> <td>3 Moderate</td> <td>4 Major</td> <td>5 Extreme</td> </tr> <tr> <td colspan="7" style="text-align: center;">Severity</td> </tr> </table>					Likelihood	5 Almost Certain	5	10	15	20	25	4 Likely	4	8	12	16	20	3 Possible	3	6	9	12	15	2 Unlikely	2	4	6	8	10	1 Rare	1	2	3	4	5			1 Negligible	2 Minor	3 Moderate	4 Major	5 Extreme	Severity						
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					Control supervised by:	Jeff Neeson	Actioned Date:																																																
					Signature:																																																		
					Job Title:	General Foreman																																																	

Project Number/Name:		Rock Street FAS - W000125				Assessment No:			
Hazard	Factors of harm See notes		Risk See Notes	Describe Risk & Required Control Measures			Factors of harm See notes		Residual risk See notes
(List items ticked on header sheet)	Likelihood	severity		reference method statement if necessary			Likelihood	severity	
Mobile Plant / Vehicles	4	5	20	Pedestrians struck by moving plant or site traffic. Site management to ensure that appropriate PPE is worn at all times, ensuring workers are visible to plant operators. All plant and site vehicles to adhere to site speed limit of 10mph at all times. Competent banksman to be in place for all movement of large plant to warn of obstacles and approaching pedestrians. All workers to follow the "thumbs up" rule of receiving confirmation from a plant operative before approaching their live plant. Site management to ensure that a suitable diversion route is maintained outside of the works and clearly signalled to pedestrians. Plant Tipping or Overturning Operators to ensure that stabilisers are used safely and responsibly whenever necessary. Conditions of site access to be maintained at all times to reduce chance of overturning being caused by poor ground conditions. If there is any risk of tipping or overturning occurring do not continue with the task until risk is removed. The depth of the trench is to be assessed to ensure the reach of the machine when excavating / installing pipes is suitable and safe at all times.			1	5	5
Excavation / Earthwork	4	5	20	Fall from height. Barriers to be placed along edge of open excavations and clear use of safety signs to point out any existing excavation work. Trench boxes and manhole boxes will be installed with attached edge protection. Pedestrian access will be blocked off using multiple layers of fencing / protection and the area will be clearly sign posted. A diversion route, as shown in the method statement will be adhered to at all times. Excavations to be inspected daily by site engineers / other competent KB site team			1	5	5
Underground Services	3	5	15	Striking underground services Ensure area has been thoroughly scanned with CAT & Genny by a person trained in it's correct use. Issue a permit to disturb ground prior to excavating and ensure service plans are reviewed throughout the works. Area has potential to contain uncharted services, so the excavation will need to be rescanned regularly to help reduce this risk.			1	5	5
Falls of Material	3	5	15	Material Falling from Stockpiles All excavated materials will be transported out via dumper and stored in the sinc area, as agreed in the method statement. No materials will be stock piled besides the open excavation and a safe batter will be in place to reduce risk of ground collapse above the trench excavation.			1	5	5
Noise	5	4	20	Damage to Hearing Ear defenders to be worn at all times by operatives working near saws or breakers. PPE must be worn at all times during the specified works and will be readily available for operatives in the office / staff areas. Noise Monitoring / Noise Exposure to Residents Noise monitoring to the rear of the houses on the South side of Park Avenue/High Street will be undertaken ahead of the open-cut works being carried out. Following completion of the works, noise monitoring will be undertaken in the same locations. Should there be a increase in noise as a result of the works, mitigation such as acoustic fence installation will be completed to reduce noise levels back to those experiences previously.			1	4	4
Dust	4	4	16	Lung cancer/Silicosis. Wear FFP3 dust mask where there is a risk of dust inhalation. Use of water to prevent dust exposure to public, dust extraction also a suitable method if required. Masks will be provided to operatives whenever needed from the site offices.			1	4	4

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Unstable / Soft Ground	3	5	15	Slips, trips, and falls. Ensure appropriate footwear is worn at all times on-site. If weather conditions are poor, ensure measures are taken to remove risk of slipping or avoid area completely until safe. Risk of Ground Movement and Excavation Collapse The initial excavation will be cut to the gradient proposed by the geotechnical engineer. The open faces will be monitored continually and reported back to the geotechnical engineer for assessment. The KB team will produce daily open excavation checks alongside this to ensure key factors are being met and that the safety of the operation is prioritised.	1	5	5
Manual Handling	3	3	9	Reference method statement if necessary - excavator to be used for lifts whenever possible.	1	3	3
Surface Slip / Uneven	3	3	9	Slips, trips, and falls. Ensure appropriate footwear is worn at all times on-site. Good house-keeping to be observed to keep ground clear of trip-hazards. Any installed stakes/pegs to be marked clearly with tape or spray paint to improve visibility. Trip-hazards to be removed.	1	3	3
Flying Particles	4	3	12	Struck by flying particles. Lightweight safety glasses for general use on-site. Heavy duty safety goggles to be used if necessary. All site members must wear glasses at all times works are being carried out. Any work around the public that could propose a risk of flying particles must be isolated to prevent harm (barriers in place at all times, alternatives routes located far enough away from works to prevent harm being possible).	1	3	3
Vibration	4	4	16	HAVS Monitoring All operatives using tools or plant that carry a HAVS risk will be assessed using HAVS documentation in line with the HSE vibration calculator. Exposure limits will be briefed to operatives and exposure times will be regularly checked and monitored by the KB team.	1	4	4
Lifting Operations	3	4	12	Lifting Operations All lifting operations to be conducted as per lift plans, by competent operators who have been fully inducted and briefed on procedures. All lifting equipment to be LOLER certified with 6 monthly tests in date, and weekly inspections conducted by site engineers. Operators to conduct daily inspections on any plant used to lift.	1	4	4

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Ecology	5	4	20	Removal and storage of Trees, Scrub, Topsoil etc The extent of trees to be felled will be marked with spray and an inventory drawn up and provided to ecologist (MP) for approval prior to felling. Arborists will be mobilised and the marked trees will be felled. The felled trees will be maintained on site within the existing woodland area but 15m away from the footprint of the open cut works to prevent any nesting within our working area. Any areas of scrub will be cut and stockpiled sympathetically for reuse within the SINC area as directed by ecologist (MP) following completion of the works. Landscape subcontractors will be mobilised to plant native tree species, to replace those felled in a ratio of 2:1, MP will be consulted as to the species of tree and planting location. The planting will be undertaken during the correct season to ensure the trees thrive. Lift plans will be in place to ensure trees are lifted out of the area safely and works won't begin until the area is safe of any potentially hazardous trees.	1	4	4
Contaminated Material	4	5	20	Preventing contamination No storage of materials anywhere other than the highlighted areas in Appendix 2, these will be the existing hard-standing i.e. the concrete slab and bog-matted areas. No materials to be stored to the side of the track leading to the SINC area. Deliveries of pipe bedding and Type 1 Subbase are to be organised with due care to ensure that they can be stockpiled correctly. Bog mats will be installed to help stop degradation of the existing ground and prevent transport of any invasive non native species (INNS) around the work area. Spill kits to be made available in suitable locations. Drip trays to be provided for storage of fuels. All fuels to be stored in bunded containers. COSHH assessments to be made available. No refuelling to be undertaken on the embankment area.	1	5	5
Flood	2	4	8	Preventing Flood Risk During Excavation Work The drainage will be installed in a piecemeal fashion such that the majority of the embankment will continually remain in place as flood protection. It has been advised that since construction of the new A465 road, the SINC area has been raised with the arisings and as such this area no longer floods. We will have a plan in place to create a horse shoe shaped bund around the excavation if required, however, due to the lowest point of the excavation of the embankment remaining greater than two metres above the existing ground level, we feel the risk is flood is mitigated.	1	4	4
Working at Height	3	4	12	Working at Height Risk Entry to and from excavations, as well as working on the plateau from above present risks in terms of working at height. This work will be minimised where possible and risks mitigated through the use of edge protection on trench boxes with secure tied ladder access. Any temporary works will be inspected daily through excavation checks and ladders inspected by site engineers weekly. Clear signposting is to be used in these areas which are to be adequately fenced off to prevent public access.	1	4	4
Animals	2	4	8	Nesting Risk from Vegetation/Tree Removal All trees will be removed outside of nesting season, and will be stockpiled more than 15m away from the open cut excavation. We plan to remove 10m of tree either side of the excavation for this reason too. This is to ensure we can work within the area if the stockpile was later nested within. All trees will be inspected for signs of nesting by arborists and KB team prior to removal. We will work with MP from NPT to replant suitable species in a suitable location upon completion of the works at a ratio of 2:1 for every tree removed. When removing vegetation we will take extra care to ensure animals are not present or nesting, particularly within scrub.	1	4	4
Danger to public (access)	2	4	8	Diversions and segregation to prevent public access The existing A465 is used currently as a public footpath and so measures are to be taken to ensure public access is restricted. The existing pedestrian track that is to be used as the diversion around the works area will be civilised ahead of the closure of the old A465 track. Next, the old A465 track will be securely closed at either end using multiple layers of Heras panels as well as anti-climb fencing in the most important areas. Site signage indicating that the footway is closed and fingerboards installed directing pedestrians to the civilised diversion will also be included. See Appendix 1 for pedestrian diversion route plan.	1	4	4

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Asbestos		3	5	15	Release of asbestos fibers which could be inhaled and cause severe damage to lungs and internal organs in both the near and distant future. All works around suspected asbestos will be halted until it can be securely removed. If asbestos is suspected in the soil dust suppression will be required for all works which may cause particles to be distributed into the air. All workers will be briefed on the risks associated with asbestos and procedures listed within our site specific asbestos management plan. Asbestos containing materials will be kept damp and segregated stock piles will be segregated. In the event that asbestos is located, specialists will be called to site to review and deal with accordingly.			3	2	6

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