

Task Risk Control Sheet

Ground Penetration and Excavations

RCS No: NR/L3/MTC/RCS0216/GA08
Issue: 3

Key Risks!

- Striking Buried Services
- Falls
- Collapse
- Confined Spaces

Personnel Involved

E&P	✓
S&T	✓
Track	✓
Off Track	✓
Property	✓

Tools / Equipment

Hand Tools

Plant

Approved CAT Scanner - Ground Penetrating Radar

Key Risks	Controls	Implemented By
Ground Penetration: Death / Injury resulting from contact with Buried Services	<ul style="list-style-type: none"> • Do not use spikes where alternatives exist (E.g. For temporary lighting). 	Team Leader
	<ul style="list-style-type: none"> • Request a full buried services check as required by NR/L2/AMG/1020 – Buried services data provision (Unless the penetration work is in the ballast box (see below) or Emergency work). 	Planning Team
	<ul style="list-style-type: none"> • Obtain a Permit to Dig Form SMF/SE/0205 in accordance with NR/L2/AMG/1030 – Working Safely in the Vicinity of Buried Services. • Conduct a site inspection before commencing work and identify and mark up the position of all buried services. <ul style="list-style-type: none"> o Refer to plans and information o Look for cables emerging from the ground in the vicinity o Look for electricity substations and transformers o Look for Under Track crossings etc • A competent person shall perform a CAT scan using a Network Rail Approved CAT Scanner or equivalent (Refer to NR/L3/MTC/RCS0216/SP05 - Use of Cable Avoidance Tools), this includes when carrying out Emergency work 	Team Leader
	<ul style="list-style-type: none"> • Use safe digging techniques and hand tools within 0.5 metres of buried services. This means:- <ul style="list-style-type: none"> o Do NOT use picks, forks and bars o Use spades and shovels with curved edges o Ease tools in with gentle foot pressure. o Do NOT throw or spike into the ground o Excavate alongside the service rather than directly from above o Dig horizontally when finally exposing services 	Staff
	<ul style="list-style-type: none"> • Where services are to be exposed isolate whenever possible and support cables and pipes during excavation work. • Wear gloves when digging <p>Locations where Heavy Plant is being used with the potential to penetrate the ground when being moved shall conform to the process above.</p>	Team Leader Staff
Tamping	<ul style="list-style-type: none"> • Obtain Hazard directory information and prepare a TQS hazard identification form tamping (SMF/SE/0207) 	Planning Team
	<ul style="list-style-type: none"> • Prior to tamping perform a survey and clearly mark up cables • Brief the Tamper Operator on the site hazards/ cable locations 	TQS TQS
Excavations	<ul style="list-style-type: none"> • Produce a project/site specific Work Package Plan (WPP) and Task Briefing Sheet 	Line Manager
	<ul style="list-style-type: none"> • An inspection of the excavation shall be performed: <ul style="list-style-type: none"> ➢ Prior to the start of every shift ➢ After event likely to affect strength or stability e.g. controlled explosions, vibration; and ➢ An accidental rock or earth fall 	Team Leader



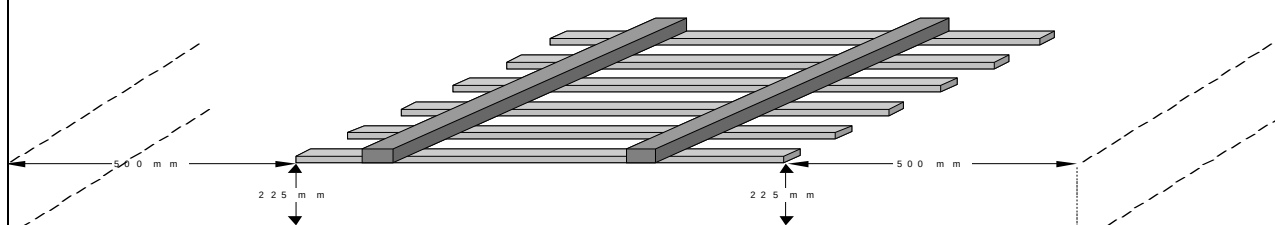
Documents

Document Sharing Hub

Task Risk Control Sheet

Key Risks	Controls	Implemented By
Excavations: Falls of materials, vehicles, people, into excavation	<ul style="list-style-type: none"> All staff to receive a pre-work briefing on the WPP / task briefing. All excavations to be fenced off, with signage and lighting provided Vehicles stops / spoil heaps shall be provided where vehicles may fall into excavations, in addition to the use of a banksman to control movements Roll over protection (and seat restraints) shall be provided on any plant and equipment used in association with excavations 	Team Leader
Excavations: Collapse due to subsidence	<ul style="list-style-type: none"> A site soil and sand investigation shall be performed prior to the excavation All practicable measures should be taken such that excavations are made safe by shoring, trench supports, battering back or equally effective measures Be aware there is no minimum safe depth for excavations If subsidence is a risk then an exclusion zone shall be implemented for all heavy plant 	Line Manager Team Leader
Excavations: Flooding	<ul style="list-style-type: none"> Provide pumping equipment where flooding is a risk 	Team Leader
Excavations: Seepage of gases into excavation Spaces	<ul style="list-style-type: none"> Treat excavations as a Confined Space Monitor the excavation for build up of gases Store fuels / gases / chemicals away from excavations See Risk Control Sheet NR/L3/MTC/RCS0216/GA09 – Entry into Confined Spaces 	Team Leader
Work in the Ballast Box	<ul style="list-style-type: none"> Conduct a visual inspection of the site before starting work. Inspect the areas either side of the ballast box for signs of services crossing the track. Limit hole depth to 225 mm or apply the full ground penetration controls as above. (The maximum depth of 225 mm shown can be increased for the digging of trial holes as required by (NR/L2/TRK/6001) to 400mm for plain line and to 500mm for S&C). 	Team Leader Staff

Description of Ballast Box



PPE Required by NR / Maintenance Policy



Wear Head Protection



Wear Foot Protection



Wear Hi Visibility Clothing



Wear Safety glasses to BS EN166.F

If safety glasses introduce a risk (ie weather conditions) then the Team Leader shall assess the risk. The outcome of the assessment shall be recorded on the SSOWPS pack and safety glasses may be removed.

This does not supersede the requirements for eye protection detailed on relevant Task Risk Control Sheets.

Additional PPE Required by Task Risk Control Sheet