

**Document Owner: Manager Customer Planning**

**Excavation and Trenching - Maintenance Procedure**

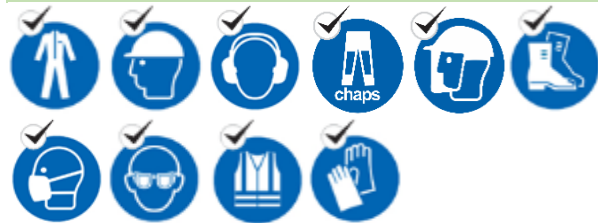
Procedures for excavation and trenching to enable network repairs and maintenance.

**Health & Safety and Operational Information**

**Hazard Indicators**



**Personal Protection**



**Health and Safety Information**

- Health and Safety documentation.
- Generic Traffic Management Plans or site-specific Traffic Management plan.
- Hazardous Waste
- Confined Space Entry
- Dig Permit

**Operation’s & Maintenance Documentation**

- Corridor Access Requests (CAR) and WIP Permits (site specific or generic/global)
- Service plans (B4uDig)
- Design drawings
- Site plans
- Notification Calling Cards

**Customer Information (Confidential)**

- Blow Back at risk customers (WWL)
- Vulnerable customers (DHB supplied list)
- Priority customers (WWL)

**Priority Customer Categories**

- Schools and Childcare
- Commercial premises
- Hospitals
- Retirement Homes/Villages
- Correction Facilities
- Military Installations
- Oil and Gas Refinery

**Emergency Procedure / Escalation**

**In event of major natural disaster.**

- If urgency and situation does not allow for pre planning and location of underground services demarcation all excavations should be carried out by hand or if mechanical excavators are utilised then a spotter should be deployed to assist.

**Emergency.**

- In event of service strike to utility/energy source (e.g. fuel, Gas, Power, Water etc.) report immediately to team leader
- Make “Site Safe” and isolate risks to people or property with resources at hand

**Escalate if extra resources required or problems occur!**

- Escalate to Team Leader and inform of the issues faced and/or expected resources required if necessary.

**Additional Documentation**

**Required Skills, Competencies (Qualifications and/or Certifications)**

Competent persons only

Document Owner: Manager Customer Planning

## Excavation and Trenching - Maintenance Procedure

### Standard Operating Procedure

#### Required Equipment

Equipment and Information	Details
Fully Equipped Vehicle	Ensure vehicle, plant, equipment and materials appropriate to the day's work schedule is available
Plant	Excavators and other specialist plant Hydroexcavation or Air Vacuum truck Barriers to prevent collapse Fences if trenches to remain exposed when site unattended
Materials	Spray paint of appropriate colours
Equipment	Cable locator Metal detector Ground Penetration Radar (GPR)

#### Prepare to do the work

Action	Action Details
Pre Start Process	Complete the Daily Pre Start - Planning Reactive Maintenance.
Compliance	<b>Traffic Management Plan</b> - Where required, TMP to be in place prior to work starting. TMP to be accessible on site.
Service Plans	Prior to excavation underground, services plans should have been sourced and supplied as an attachment to the work order
As Built Drawings & Site Plans	If available copies of the as built drawings and or site plans should be supplied.
Check GIS maps	Review GIS maps for pipe and asset locations. Correlate with the supplied underground services documentation.

#### Perform the work

Action	Trade	Action Details
Maintenance		Undertake all tasks required in the Pre-Start - Planning for Reactive Maintenance.
Demarcation		<p>Prior to commencement of excavations site mark out of the underground services.</p> <p>Colour Coding for Mark Out:</p> <ul style="list-style-type: none"> <li>- Red - Electric power lines, conduit and cables. Orange</li> <li>- Orange - Telecommunication, alarm or signal lines.</li> <li>- Yellow - Gas, oil, steam, petroleum, or other flammable material.</li> <li>- Green - Sewage and drain lines. Red</li> <li>- Blue - Drinking water.</li> <li>- White - Proposed excavation limits or route</li> <li>- Pink - stormwater</li> <li>- All physical mark out must be done by a qualified asset locator.</li> </ul>
Documentation		Apply the HSWA Excavation Safety Good Practice Guidelines
Documentation		Apply WorkSafe's Guide for Safety with Underground Services
Maintenance		<p>Check the excavation each day before starting work and after any event that may affect its stability.</p> <p>Ensure there is safe access to get in and out of excavations</p> <p>Check batters, trench shields, benching and any barriers for stability</p> <p>Do not assume ground will stand unsupported</p> <p>Keep spoil and machinery away from trench/excavation edge. Ensure suitable barriers are in place to prevent people and materials falling in.</p>
Maintenance		<p>Check inspect the workplace and assess where someone could get injured by excavation activities.</p> <p>Apply appropriate mitigation to minimise the risk.</p> <p>Set up the site to ensure Health and Safety considerations are addressed, open excavations must be fenced off to control access</p>
Maintenance		When available utilise a spotter to assist with mechanical excavations.

Document Owner: Manager Customer Planning

### Excavation and Trenching - Maintenance Procedure

Action	Trade	Action Details
Maintenance		If you do not have the underground services plans and still have a need to carry out excavations, then service locating should be undertaken followed by non machine excavation (hand dig/hydroexcavation slot trench) When in close proximity to services undertake excavation works by hand where practicable.
Maintenance		Where dewatering is required ensure appropriate disposal of treatment and disposal of effluents and pumped water is undertaken i.e. utilisation of sedimentation tanks prior to discharge to the environment or disposal to wastewater treatment plant for effluent.
Maintenance		Take care to ensure there is minimal / no possibility of cross contamination between services during excavation works.
Maintenance		Reinstatement of excavations in the road corridor must comply to the requirements of the Road Control Authority(Code of Practice) responsible for the location were the excavations have occurred.
Maintenance		Carry out reinstatement to ground level. If additional works required generate child reinstatement work order
Closure		Carry out work order closure procedures as per Reactive Maintenance - Generic Reactive Maintenance Procedures