

Lessons learned from one of New Zealand's most challenging civil engineering projects: rebuilding the earthquake damaged pipes, roads, bridges and retaining walls in the city of Christchurch 2011 - 2016.

Critical Risk 1 Health and Safety Toolbox – service strikes

Story: Health and Safety

Theme: Programme Management

A document which outlines how to work safely around underground services, created to discuss with site staff at on-site “toolbox talks”.

This document has been provided as an example of a tool that might be useful for other organisations undertaking complex disaster recovery or infrastructure rebuild programmes.

For more information about this document, visit www.scirtlearninglegacy.org.nz



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Health and Safety Toolbox 1



Critical risk– Service Strikes

What is a service strike and how can I get hurt?

A service strike is when our work penetrates or compromises a service such as power, gas, water, pipe, phone line etc.

Service strikes are our **number 1 critical risk** because of the potential consequences of a strike:

- ⇒ Fatality through electrocution or explosions
- ⇒ Traumatic body injuries including burns, fractures and paralysis
- ⇒ Interruption of vital services to the public or service providers affecting those on dialysis, health care centres, and critical communication services.

How can we prevent a service strike?

- ⇒ Ensure everyone on site is trained for reading service plans and locating services
- ⇒ Ensure everyone understands the job's detailed Risk Assessment prior to work starting
- ⇒ Only use As Built service plans that are less than 30 days old
- ⇒ Only start work once:
 - **Services have been located with GPR**
 - **Services have been clearly marked out**
 - **After seeing and confirming all the services on site (by potholing, slot trenches and drawings)**
- ⇒ Only use hydro or vacuum excavation for potholing
- ⇒ Use "goal posts", or similar, as visual reminders for Overhead services
- ⇒ Ensure there is a spotter at all times
- ⇒ Use engineered support and protection for exposed services
- ⇒ You cannot use mobile plant within 600mm of a known service

