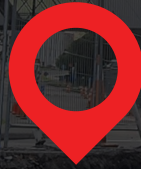




beforeudig



SAFE DIGGING GUIDE

UTILITY DAMAGE PREVENTION



ABOUT THIS GUIDE

At beforeUdig, the safety of those working around utility cables, pipes and the communities they service is of high priority. At every stage of your excavation project, there are measures that should be taken to ensure the safety of those digging. We have put together this handy guide to help prepare, so you can complete your works safely without damaging any cables or pipes.



BEFORE STARTING

It begins with lodging a **FREE** beforeUdig enquiry at least two full business days prior to starting your excavation project. Having the correct information and knowledge will assist greatly in avoiding damages to affected utility assets in your dig site.

Plans **DO NOT** come from beforeUdig but are sent directly to you from the utility asset owner. Once all plans have been received from the affected asset owners as indicated by the cover sheet, study the plans and information thoroughly to ensure there is an understanding of what is required. Some asset owners such as high-pressure gas and water will require a site inspection and permit to dig, this is the law and you **MUST** follow their instructions before you dig.



ENQUIRY

Lodge a beforeUdig enquiry at least two full business days prior to starting your project.



EXCAVATE

Excavate with caution following the 5 Rules of Safe Excavation.



LOCATE

Locators are people who provide an onsite service to assist in specifically identifying underground services.



PROTECT

Protect workers, utilities, and the community from utility strikes, service interruption and preventable damage.

Use the utility plans and a visual inspection to gather site information to determine any hazards, trenches, pits, pillars, poles & cabinets and other above ground clues for the presence of unseen and undocumented underground services. Mark any above ground clues you have discovered on your plans and where possible move your planned excavations to increase clearance distances.

LOCATING UNDERGROUND CABLES & PIPES

Please note that plans provided by the asset owner only indicate the presence of utility assets within the vicinity of the project site and **DO NOT** pinpoint the exact location.

A small number of New Zealand's utility asset owners are not Members of beforeUdig, and assumptions **SHOULD NOT** be made that the plans received represent all the utility assets affected in your dig site.

Hire a professional utility cable and pipe locator using electronic detection equipment to scan and mark on the ground the position of cables and pipes. Use a beforeUdig Certified Locator where possible and have the locator provide a risk report and map of the detected cables and pipes.

Some asset owners may provide a locator for you either for free or at your expense. It is important you wait for this locate also before you dig.

POTHOLE

Use physical means of identification by digging 'potholes' to eyeball cables and pipes in your worksite. Potholes must be dug by hand or non-destructive means such as vacuum excavation. Mark the positions and depths of identified cables and pipes on the plans, take photographs and list these on any permit to work and health and safety forms and hazard boards.

By using a beforeUdig Certified Locator while you are potholing will minimise the amount of pot holing required and assist in identifying the correct assets when visible.

Safety plans should be developed for the work site that include procedures that must be followed in the event of an emergency such as evacuation plan and the location of the first aid, and the relevant emergency response organisations.



Credit: Kate Photoartistry



GETTING ON WITH THE JOB

Everyone working onsite **MUST** be trained and briefed on all safety measures to avoid unnecessary risks and place safety as a priority. If you are a contractor, use a permit to dig system with a trained and experienced person in charge of authorising digging to begin. Where a utility owner has provided you with their own permit you **MUST** also follow these instructions.

As well as avoiding underground services other hazards must also be considered with health and safety regulations observed such as the presence of overhead lines, working in confined spaces and ensuring any excavation trenches are adequately shored to prevent collapse. Please refer to the information and plans provided by the asset owner for further clarification on steps you must take before you dig.

You **MUST** take steps to physically protect assets within your worksite. Use barricades and cover plates to place a physical barrier between tools and the asset, being careful not to damage or move the cable or pipe when installing these. You must support any exposed length of cables or pipes with supports. Please contact the utility owner for instructions on how to do this.

Select the correct tools for the excavation and according to if there are any assets present. For utilities in proximity check with the asset owner for their 'minimum approach distances' to determine which type of tools should be used.

Where mechanical excavation is being performed a 'spotter' should be used to observe the proximity to the digger bucket/implement to exposed or known asset positions. The spotter must be in constant contact with the excavator operator and always paying attention.

Where a distraction arises such as phone calls or talking to another person then the excavator operator should cease work until the distraction to the spotter has passed.

If the scope and area of your work changes or the validity date(s) of plan(s) expire, a new beforeUdig enquiry must be submitted and work stopped until plans received and the above measures implemented for areas outside of your original scope of works.



THE FIVE RULES OF SAFE EXCAVATION

Following the five key rules of Safe Excavation can ensure the right steps are taken to prevent damages to utility cables and pipes and keep you safe.

PLAN

Plan ahead by lodging your beforeUdig enquiry at least two full business days before starting any excavation to ensure you have the correct information and safety measures in place

PROTECT

If potholing has occurred, protect the infrastructure by using various methods, such as communicating to all working on site, erecting barriers and / or marking the location of the exposed infrastructure.

PREPARE

Prepare by reviewing the utility plans. Contact the utility owner if you need assistance. Look for clues onsite such place as pit lids, marker posts and meters. Engage a qualified locator which includes undertaking electronic location and marking out prior to potholing.

PROCEED

You should only proceed with your excavation work after you have planned, potholed (unless prohibited) and have protective measures in place. At the beginning of each day or whenever the excavation crew change hold a „pre-start“ safety briefing to talk over the hazards onsite.

POTHOLE

To establish the exact location of all underground utilities, pothole if permitted using the asset owner's stated method as specified on the asset owner's plan and / or information pack - typically, a slit trench, hand dug using a non-conductive shovel or vaccum excavation.



WHEN YOU HAVE FINISHED

Once the project is complete, ensure no utility asset(s) have been damaged and that any exposed underground asset(s) uncovered by any excavation has been filled back in. Any utility assets exposed must be back filled in accordance with utility owner guidelines



IF DAMAGE HAPPENS



If damage has occurred to any utility asset, notify the affected asset owner immediately by using the contact details on the beforeUdig cover sheet or via the Emergency Contacts page. If the situation is life threatening, please contact the Emergency Services on 111 first. Implement the evacuation procedure in your safety management plan for damage to high-risk cables and pipes such as gas, **ALWAYS** call 111.

If you are in a digger and damage an electricity cable, then remain in your machine for your own safety as it may have 'livened' do not exit unless you have been informed by the cable owner that the electricity has been shut off. If the situation is serious such as the machine is on fire, then jump as far as you can.

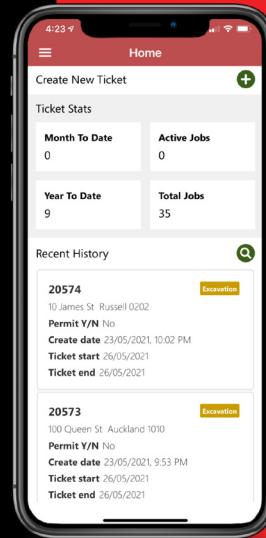
Do not attempt to fix damage yourself, always call the asset owner. **ALWAYS** report damage no matter how minor, it is common for a cable or pipe to fail many years after minor damage.

WHAT'S BEFOREUDIG?

beforeUdig is a **FREE** online service which enables anyone undertaking design and excavation works to obtain information on the location of cables, pipes and other utility assets in and around any proposed dig site, helping to protect themselves and critical utility assets during these works.

DOWNLOAD THE APP

Download our App at your favourite app store and request your plans from **ANYWHERE**.



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