

## Plumbing Solutions – edition 10

### Common Service Trench Requirements Proximity, Identification and Minimum Depth of Cover

*This Plumbing Solution aims to inform Plumbers and Developers of their responsibilities when installing multiple services in trenches.*

#### Common Service Trench

Any service trench that contains more than one individual service is a shared or common trench. Common trenches are a practical solution for the conveyance of multiple services within a development.

SA Water has noticed an increasing amount of developments installing multiple services within non-compliant common trenches. Services that are improperly installed in common trenches increase risk of property damage arising from service failures and may result in injury or death of a person whom is attempting to access or repair a faulty service.

#### Proximity of Services - Below Ground

- a) The separation between any underground drain **or** water service pipe less than DN65 with an electrical supply cable shall be at least –
  - i) 100mm, provided the electrical supply cable is indicated along its length with orange marker tape complying with AS/NZS 2648.1 and is mechanically protected; **or**
  - ii) 300mm, where the water service is greater than DN65 and the electrical supply cable is indicated along its length with marker tape complying with the requirements of AS/NZS 2648.1 and is mechanically protected; **or**
  - iii) 600mm where the electrical supply cable is neither indicated nor protected.
- b) The separation between any underground drain **or** water service pipe with an electrical earthing electrode, for an electrical supply not exceeding 1000V, shall be at least 500mm. For an electrical supply exceeding 1000V, the relevant authority shall be contacted for a ruling.
- c) The separation between any underground drain **or** water service pipe with an consumer gas pipes shall be at least –
  - i) 100mm provided the consumer gas pipe is indicated along its length with marker tape complying with the requirements of AS/NZS 2648.1 laid 150mm above the installed pipe and is mechanically protected; **or**
  - ii) 300mm, where the water service is greater than DN65 and the consumer gas pipe is indicated along its length with marker tape complying with the requirements of AS/NZS 2648.1 and is mechanically protected; **or**
  - iii) 600mm where the consumer gas pipe is neither indicated nor mechanically protected.
- d) The separation between any underground drain and a water service shall be at least 100mm.
- e) The separation between any underground drain and a communication cable shall be at least 100mm.
- f) The separation of any underground drain and a stormwater drain exceeding DN100 shall be at least 300mm.
- g) The separation of a non-drinking water service pipe and drinking water service pipe shall be at least 300mm.

*Note: Mechanical protection is provided by any of the following: concrete slabs, continuous pour, bricks designed for protecting electrical supply cables.*

## Service Identification

All below ground services installed within common service trenches must be identified clearly by making tape in accordance with AS 1345 or NZS 5807, as appropriate.

## Minimum Depth of Cover

### Drains

Drains shall be laid in a manner that provides protection against mechanical damage and deformation due to vehicular loadings.

Drains shall be laid with a depth of cover, measured from the top of the pipe socket or inspection opening to the ground surface, as specified in table **Minimum Cover for Buried Piping** beside; unless the product – specific Standard specifies, or the manufacturer recommends, a greater depth of cover.

| MINIMUM COVER FOR BURIED PIPING        |                         |                |
|--|-------------------------|----------------|
| Location                               | Minimum depth cover, mm |                |
|  | Cast iron, ductile iron | Other material |
| Where subject to heavy vehicle traffic | 300                     | 500            |
| Where subject to light vehicle traffic | 300                     | 450            |
| Elsewhere                              | Nil                     | 300            |

### Water Services

Where water services are installed below ground in private property, the minimum cover shall comply with the table beside

| MINIMUM COVER IN PRIVATE PROPERTY FOR BURIED PIPING |                   |
|---|-------------------|
| Location  | Minimum cover, mm |
| Subject to vehicle traffic                          | 300               |
| Under houses or concrete slabs                      | 75                |
| All other locations                                 | 225               |

If you have any questions about Common Service Trench Requirements or the AS/NZS 3500 Plumbing and Drainage Standards or alternatively, if you would like copies of this or various editions of Plumbing Solutions, please contact Plumbooking on (08) 7424 1360 or email [plumbooking@sawater.com.au](mailto:plumbooking@sawater.com.au)

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