

2.2 Cable Joints

Cable joints shall not be allowed unless approved by the City of Perth Project Officer / Manager.

2.3 Cable Trenching

All electrical and communication conduits shall be installed in accordance with AS/NZS 3000, AS/NZS 3007, relevant statutory authorities and project standard drawings.

Cables trenches shall be of adequate depth to provide the following minimum cover over underground conduit for the entire length of the trench.

Bare earth cables:	600 mm
All low voltage cables:	600 mm
All high voltage cables:	850 mm

A minimum of 150mm of sand bedding shall be provided in the trench below the bottom conduit.

Electrical conduits in trenches shall be taken over or under obstructions such as proposed/existing water pipes or sewers pipes. The trench shall be excavated to ensure minimum statutory segregation distances between services.

All trenches shall be excavated to accommodate the conduits, spacing/segregation and conduit (cable) installation configuration (trefoil etc.) required to complete the installation.

A continuous strip of 150 mm wide orange PVC electrical marker tape shall be installed not more than 300 mm above the cables over the full width of the trench and for the full length of the underground route.

Concrete cable markers shall be visible and located on the surface at each change of detection to identify the cable route.

2.4 Conduits

Conduit shall be galvanised steel or heavy duty PVC for underground or cast-in concrete installations (unless specified otherwise). Above ground conduits shall be galvanised conduit to AS 2053 or PVC conduit with UV resistant depending on the environment in which the conduits will be installed.

All cables leaving trenches shall pass through a PVC conduit sleeve which finish 150mm above finished ground level. The space around cables exiting conduit sleeves shall be filled with non deteriorating, non-setting, weatherproof sealant

All conduit, where installed in a hazardous area shall be certified for the particular area classification.

For underground conduit runs draw pits shall be installed at intervals not exceeding 50m. For all changes in direction draw pits or large sweeping bends shall be sized to suit the minimum bending radii of the cables to be installed. For all conduits entering/exiting underground pits, the outside of the conduits shall be sealed with a suitable compound to maintain the water tight integrity of the pit.

All pits shall be rated to suit the installation location with particular attention to the traffic rating of the pits and associate lids for the application.