

Guard Wire Installation

Information for Property Developers, Consultants, Builders and Customers



Author's name

Copper Technology Solutions

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Summary

This Specification covers the installation of a stainless steel guard wire for the electrical protection of telecommunications cable/s installed in conduits in an Enhanced Lightning Protection Zone.

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1 GENERAL

1. Developer will register their developments via the Telstra Smart Communities webpage.
2. Telstra will advise the developer whether the development is in an Enhanced Lightning Protection zone and what electrical protection is required e.g. installation of guard wire.
3. In estates covered by Shared Trench Agreements in Telstra identified Enhanced Lightning Protection Zones, the developer shall liaise with and source written approval or any objections from the other utility providers involved in relation to the installation of the guard wire.
4. The developer shall advise Telstra of any objections from the other utility providers.

1.1 Installation of guard wire

- The guard wire shall be Stainless Steel, (AISI type 316 or similar), 2.5 mm dia, Annealed, Cold drawn with a tensile strength of 620 - 760 MPa.
- A guard wire shall not be installed in trenches shared with H.V. power cables.
- Guard wires shall be continuous in its length.
- Guard wires are to be joined using Telstra approved stainless steel crimp sleeve or equivalent and buried in the trench as normal. See Figure 1.
- A minimum of four photos must be taken and submitted to Telstra to support the correct installation of the approved stainless steel crimp sleeve where splicing of the guard wire is necessary.
- The complete guard wire route and where any joining of the guard wire takes place must be shown on submission of the 'as built plans'.
- A guard wire shall be installed with 350 mm cover, 100 mm above the newly installed trenched conduit and have a minimum of 100 mm separation from the pit in new estates where it is within a designated Enhanced Lightning Protection zone. See Figure 2.
- The guard wire shall not enter into a pit. See Figure 1.

2 DIAGRAMS

Figure 1

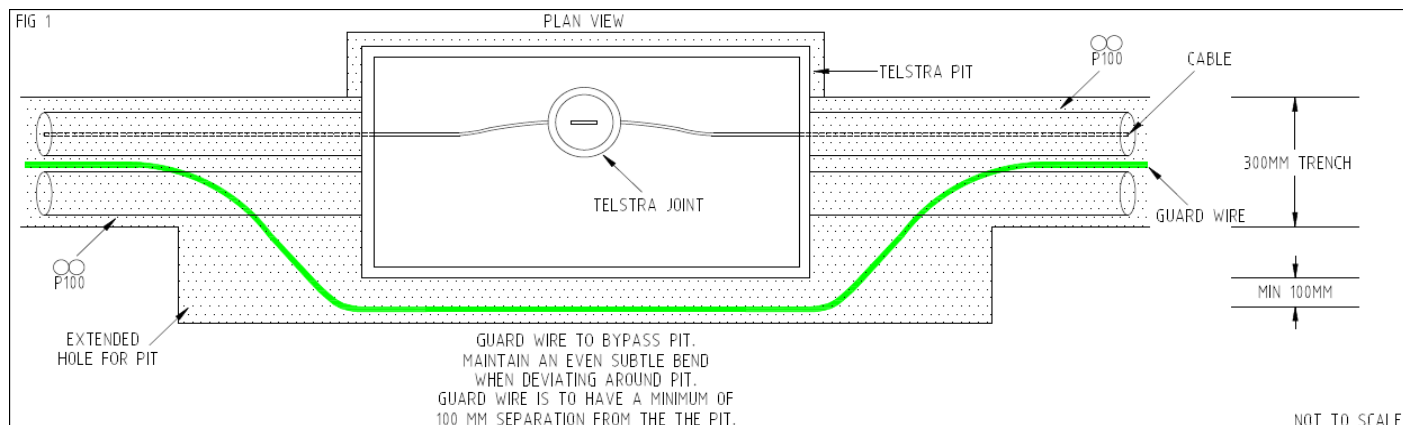


Figure 2

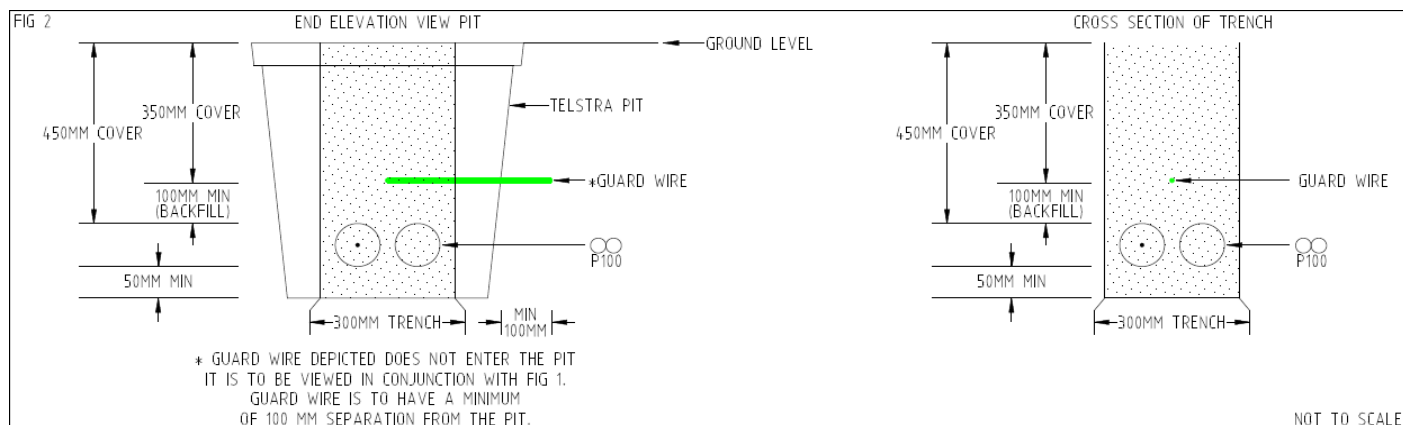
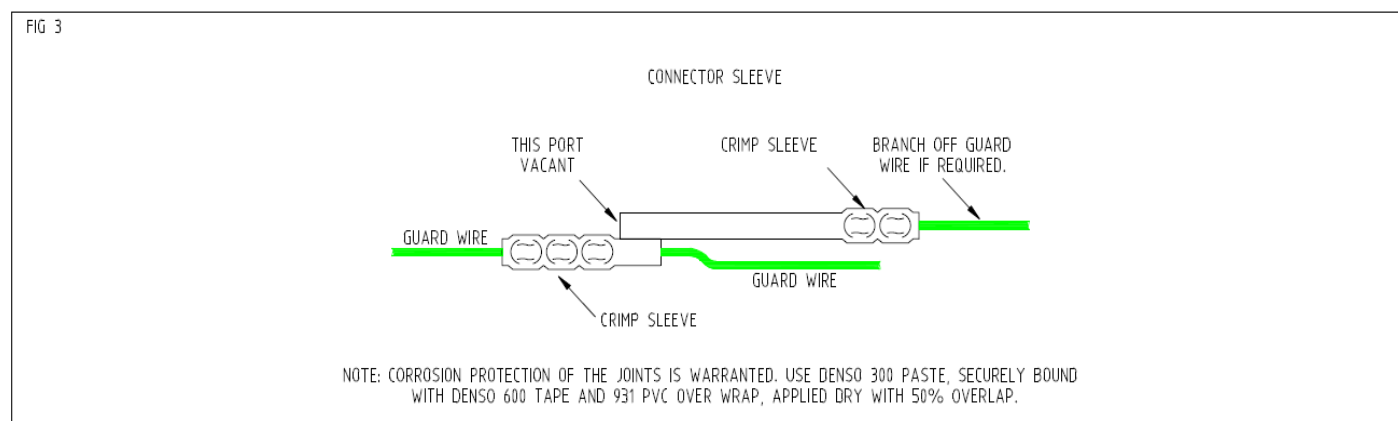


Figure 3



3 REFERENCES

Document number	Title
Telstra Smart Community website	http://www.telstra.com.au/smart-community/builders/

4 DEFINITIONS

Term	Definition
AISI	American Iron & Steel Institute
H.V	High Voltage
MPa	Mega Pascal

5 ATTACHMENTS

Document number	Title
Nil	

6 DOCUMENT CONTROL SHEET

Issue number	Issue date	Details on the change
1	28 March 2017	Initial Publication

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