

Australian Standard[®]

**Classification of Subsurface Utility
Information (SUI)**



This Australian Standard® was prepared by Committee IT-036, Subsurface Utility Engineering Information. It was approved on behalf of the Council of Standards Australia on 4 April 2013. This Standard was published on 14 May 2012.

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 - Australian Institute of Mine Surveyors
 - Australian Local Government Association
 - Australian Services Union
 - Austroads
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 - Surveying and Spatial Sciences Institute
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 - Water Services Association of Australia
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Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

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PREFACE

This Standard was prepared by Standards Australia Committee IT-036, Subsurface Utility Engineering Information.

The objective of this Standard is to provide utility owners, operators and locators with a framework for the consistent classification of information concerning subsurface utilities.

While the depiction and location of subsurface utilities and related asset information may appear in as-built records, due to the lack of historical evidence utility information and locations may not be exactly as shown or the records may not fully account for all the buried utility systems. This makes the existence and location of subsurface utilities difficult to establish and verify. This deficiency in reliable information during planning, design and construction activities can result in costly conflicts, delays, utility service disruptions, redesigns, personal injuries and lost lives.

Knowledge of precisely where and what a subsurface utility is and its status in its asset lifecycle can significantly reduce the occurrence of interference and conflict with valuable subsurface utility infrastructure. The application of this Standard is intended to improve public safety and reduce costly property damage and to provide much more accurate information on the location and type of subsurface utilities than has been available in the past.

This Standard also provides guidance on issues such as how subsurface utility information may be obtained, and how that information should be conveyed to the information users. The Standard also recommends, through the adoption of quality level A, the absolute positioning of subsurface utilities in three dimensions as an improvement upon the current widely adopted method of relative positioning. In countries prone to natural disasters or terrorist attacks, absolute positioning has a major advantage in locating subsurface utility assets and infrastructure after such an event.

The term 'informative' has been used in this Standard to define the application of the appendix to which it applies. An 'informative' appendix is only for information and guidance.

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STANDARDS AUSTRALIA

Australian Standard**Classification of Subsurface Utility Information (SUI)**

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard provides a framework for the classification of subsurface utility location and attributes information in terms of specified quality levels.

This Standard applies to subsurface utilities and associated surface features that facilitate the location and identification of subsurface utility infrastructure. These features may include access chambers, stop valves, terminal pads and other surface related facilities. This Standard does not apply to utility infrastructure that is above the surface such as overhead wires.

This Standard applies to all existing (including redundant), and under-construction subsurface utility infrastructure.

For the purpose of this Standard, the term ‘subsurface’ includes ‘submerged’ (see Clause 1.4.21).

1.2 APPLICATION**1.2.1 Intended audience**

This Standard is intended to be used by those agencies and organizations that own, operate or regulate subsurface utility infrastructure, and those that collect, depict and map such infrastructure. This Standard is also intended to be used by developers and consent authorities involved in the planning, approval and installation of subsurface utility infrastructure.

1.2.2 Depiction of subsurface utilities

The depiction of subsurface utilities on maps, plans and electronic records, in terms of symbology, line types and colours is the prerogative of the entity that owns or operates the utility. Although this Standard recommends how this information should be recorded (see Appendix B), nothing in this Standard is intended to prevent or encumber an entity that maps subsurface utilities from using its own symbology, line types and colours to depict and record subsurface utilities in its own geographic information systems, mapping databases, plans, drawings or other records.

1.2.3 Retrospective application

This Standard may be applied retrospectively to existing subsurface utilities with regard to classifying information from systems and repositories.

The principles of risk management and continuous improvement in the quality and accuracy of subsurface utility records should be considered.