



AUSTRALIAN RAIL TRACK CORPORATION LTD

Discipline
Engineering Standard

Category
Track & Civil - General

Installation of Utility Services and Pipelines within Railway Boundaries

ETG-17-01

Applicability

ARTC Network wide	✓
New South Wales	
Western Jurisdiction	
Victoria	

Primary Source

(RailCorp Draft Standard ESC 004 Utility Service Crossings and ARTC NSW Standards EGS 00 to EGS 07)

Document Status Record

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List of Amendments

Issue	Date	Clause	Description
1.0	26/04/2006		First issue of Common Standard (supersedes NSW Standards EGS 00 to EGS 07)

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1. Scope and Application

This standard specifies the technical requirements for the installation of utility services and pipelines within railway boundaries.

The requirements apply to all utility service crossings including electric power, telecommunications, water (mains and domestic), gas, sewerage, drainage and other flammable and combustible services.

The minimum requirement for any installation of underground utility services and pipelines within railway boundaries is compliance with AS 4799.

All access to railway property must be supported by an agreement entered into with ARTC for that purpose. For further information contact the Regional Property Manager.

2. Version History

New Standard.

This Common Standard replaces the following NSW Standards:

EGS 00	Management System for Pipe, Electrical & Telephone Crossings Under and Over Railway Property
EGS 01	Technical Requirements for Installation of Other Parties' Services and Pipelines within Railway Boundaries (R.O.A. Code)
EGS 02	Pipeline Agreement for Service Crossings on Railway Land
EGS 03	Electrical Service Crossings on Railway Property
EGS 04	Telecom and Optus Cable Crossings on Railway Property
EGS 05	Water Board Crossings on Railway Property
EGS 06	Standard for Installation of Domestic Water Pipelines within Railway Boundaries
EGS 07	Australian Gas Light Company Crossing on Railway Property

3. References

AS 4799 Installation of Underground Utility Services and Pipelines within Railway Boundaries

AS 5100 Bridge Design

4. Technical Requirements

4.1. General

All underground utility services and pipelines within railway boundaries are to be designed and installed in accordance with Australian Standard AS 4799 - Installation of underground utility services and pipelines within railway boundaries and the requirements of this Standard.

Electrical aerial crossings shall be designed and installed in accordance with ARTC NSW Standard PYS 02 – Requirements for Electric Aerials Crossing ARTC Infrastructure and in accordance with relevant transit space standards.

Communications aerial crossings shall be designed and installed in accordance with transit space standards and relevant industry and Australian Standards.

No service or pipeline is to be installed unless technical approval is given by a person with the relevant Engineering Authority.

No services are to be attached to bridges without the approval of ARTC's General Manager ISP or nominated representative.

4.2. Underground Services

The railway loading shall be in accordance with AS 5100.

The minimum depth of cover for all services under track shall be 1.6m below rail level.

Trenching or tunnelling under track is not permitted without specific permission from Manager Standards & Systems.

When approval is given to place the pipe under a bridge, the trench shall be excavated no closer than 1m to the foot of any abutment or pier to the depth specified above, but not at such depth as to undermine the bridge footing.

When approval is given to install a pipe through a concrete culvert, the pipe shall be located closely adjacent to the culvert wall and as close to the soffit as possible. The pipe is to be located by grouting under and over the pipe to present a smooth surface to the water passing through the culvert. The pipe is to return underground at each end of the culvert as quickly as practical.

In addition to markers, a plastic warning tape is to be laid in every trench 100mm above the telecommunications cable to act as a warning during subsequent excavation or fire break grading.

For pipes carrying water mains, the carrier pipe shall be encased in a pipe complying with AS 4799.

5. Maintenance Requirements

Field staff must ensure that:

- Marker signs are not damaged, obscured or removed.
- The installation is not damaged, particularly when undertaking earthworks such as clearing the right of way or making firebreaks.
- Installations on bridges are examined as part of the cyclic bridge examination programme.

6. Documentation

Whilst all negotiations with an applicant must be arranged through the Corporate Property Manager, the Regional Property Manager is responsible for the management and recording of all utility service crossings.

All service crossings are to be covered by a Master Access Deed.

A copy of each relevant Deed is to be maintained by the Regional Property Manager covering their area of responsibility.