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# Technical Note - TN 025: 2015

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## **Subject: Withdrawal of ESC 530 *Cycleways on the Rail Corridor***

This technical note is issued by the Asset Standards Authority as a notification to remove from use the RailCorp standard ESC 530 *Cycleways on the Rail Corridor*, Version 1.1.

ESC 530 is a legacy document and shall be used for reference purposes only. ASA standard T HR CI 12180 ST *Active Transport Links on the Rail Corridor*, Version 1.0 supersedes this document.

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## ESC 530

# CYCLEWAYS ON THE RAIL CORRIDOR

Version 1.1

Issued December 2009

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Superseded by T HR CI 12180 ST

### Document control

Revision	Date of Approval	Summary of change
1.1	December, 2009	Details in summary of changes
1	May, 2009	First issue as a RailCorp document.

### Summary of changes from previous version

Section	Summary of change
Document Control	Changes in position titles

Superseded by T HR CI 12180 ST

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## 1 Purpose, Scope and Application

This Standard specifies the technical requirements for the design, construction and maintenance of cycleways on the rail corridor.

The requirements apply to all RailCorp corridors and property.

## 2 References

### 2.1 Australian and International Standards

AS 1100.401      Technical drawing Part 401: Engineering survey and engineering survey design drawing

### 2.2 RailCorp Documents

EP 12 30 00 01 SP      Electrolysis from stray DC current  
ESC 510      Boundary Fences  
SPC 511      Specification Boundary Fences

### 2.3 Other References

Roads & Traffic Authority      “NSW Bicycle Guidelines” (as published on the RTA website [www.rta.nsw.gov.au](http://www.rta.nsw.gov.au))

## 3 Definitions and Abbreviations

Terms used in this Standard are defined as follows:

Non-Rail Party:      Organisation external to RailCorp, e.g. Local Government Authority, community organisation

Applicant:      Authority or organisation that wishes to install a cycleway within the rail corridor

Danger Zone:      Everywhere within 3m horizontally from the nearest rail and any distance above or below this 3m, unless a safe place exists or has been created

Working Zone:      The area adjacent to the rail lines required by RailCorp for access for rail personnel, road vehicles and machinery, including vehicle and machinery turning areas and material storage areas.

## 4 General Requirements

Applications by non-rail parties for the installation of a cycleway on the rail corridor shall be made through RailCorp’s Rail Corridor Management Group (RCMG).

An information and application package and relevant guidelines can be accessed on the RailCorp website [www.railcorp.nsw.gov.au](http://www.railcorp.nsw.gov.au) under “Building near the railway”.

## 5 Design Requirements

### 5.1 General

The design of a cycleway within the rail corridor is to comply with the “NSW Bicycle Guidelines” as published by the Roads and Traffic Authority. Any departures from these guidelines shall be documented by the Applicant and included in the proposal for RailCorp’s consideration and response.

RailCorp requires a minimum area adjacent to the rail lines (“Working Zone”) to allow access for rail personnel, vehicles and equipment to the railway infrastructure. This access is required for both maintenance and emergency purposes and shall be unimpeded at all times (24 hours a day, 7 days a week).

## 5.2

### Location

On level ground, the trackside fence of a proposed cycleway is to be no closer than 6.2 metres from the centreline of the nearest track. This minimum distance is to be increased as necessary at cuttings, on embankments and where vehicle turning and material storage areas are required by RailCorp.

In train examination areas with a parallel access road, the minimum distance is to be increased to 7.750 metres.

The design of the cycleway shall comply with safety clearances to live electrical infrastructure.

The cycleway shall be clear of:

- catchpoint derailment landing areas
- cable routes
- structures and buildings.

## 5.3

### Drainage

Appropriate drainage systems are to be designed for the cycleway to ensure that stormwater runoff is not concentrated and directed onto the rail lines or other railway infrastructure. The drainage systems shall be designed to be compatible with the existing drainage along the rail corridor and cesses.

## 5.4

### Fences

In addition to the rail corridor boundary fence, cycleways shall be fenced on the trackside. The trackside fence shall comply with the RailCorp Engineering Standard ESC 510 “Boundary Fences”.

The minimum requirement is the 1.8 metre high chain-link fabric fence.

At the following locations, the minimum requirement is a 2.4 metre fence with 600mm high concertina short barbed tape:

- the fence line is less than 3 metres from overhead wiring structures, power poles and signalling equipment
- where a cycleway is to be located on the shoulder of a cutting.

## 5.5

### Access gates

Access gates with railway security locks are to be provided in both side fences of a proposed cycleway, to provide access for RailCorp vehicles and equipment into the Working Zone. The location and spacing of the gates shall be specified by RailCorp for each cycleway proposal. Where appropriate, the access points are to include laybacks in adjoining road kerbing and removable bollards.

## 5.6

### Lighting

Lighting of a proposed cycleway shall comply with the “NSW Bicycle Guidelines” and shall be designed and located so as to:

- avoid glare or reflections to the eyes of train drivers;
- avoid being confused with railway signals;
- minimise the impact on residents of adjoining properties.

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## 5.7 Electrolysis

Electrolysis occurs in the electrified areas of RailCorp's corridors. The issue of potential corrosion is to be taken into account where metallic products (e.g. metal fencing) are proposed to be utilised as part of the cycleway.

Reference should be made to RailCorp Electrical Standard EP 12 30 00 01 SP "Electrolysis from stray DC current" for further technical information and guidance.

## 5.8 Services

Appropriate measures are to be designed where necessary to protect (or relocate) any existing above ground or below ground services affected by the proposed cycleway.

## 6 Construction

### 6.1 Construction standards

The construction of a cycleway shall be undertaken in accordance with the approval granted by RailCorp and relevant engineering standards.

### 6.2 Protection of rail infrastructure

Particular care shall be taken during the construction of a cycleway that adjacent rail infrastructure is not disturbed or damaged. This could include for example:

- Track subsidence;
- Excavation at the base of railway embankments, that might lead to destabilisation and failure of the embankment;
- Disturbance to drainage systems over railway cuttings that might lead to failure of the cutting slopes or fouling of the tracks below etc.;
- Undercutting of the base of railway cuttings;
- Damage to railway cess drains and disturbance to the flow of stormwater runoff;
- Damage to train examination or staff walkway areas;
- Excavation adjacent to building, bridges or other structures that might undermine or destabilise the foundations;
- Damage to above ground railway equipment, e.g. signalling infrastructure;
- Damage to existing above ground or below ground services.

## 7 Documentation

### 7.1 Design Stage

Documentation complying with AS 1100.401 "Technical drawing - Part 401: Engineering survey and engineering survey design drawing" is to be provided by the Applicant as part of the planning and design process.

General requirements include a site survey, scaled plans and cross-sections detailing:

- Proposed location in plan view and rail kilometrage of the cycleway, relative to the railway boundary, tracks and other adjacent railway infrastructure;
- Proposed reduced levels of the cycleway, relative to the ground, track and other infrastructure;
- Details of the proposed cycleway formation, running surface, drainage, fencing and lighting etc.;
- Details of existing underground services as determined from the Services Search and proposed protective measures where applicable.

The Applicant will be required to prepare and submit for RailCorp's approval a detailed technical specification for the proposed works.

The Applicant will also be required to prepare and submit for RailCorp's approval a Maintenance Plan for the cycleway, including periodic inspections of the fencing and drainage systems. The Maintenance Plan is to include a clear statement as to the external party responsible for the inspections and maintenance.

7.2

**Work-as-Executed Plans**

Work-as-executed plans shall be prepared and submitted by the Applicant on the completion of a new cycleway. Any variations to the approved design plans shall be clearly marked.

All work-as-executed plans shall be lodged in the Plan Room.

7.3

**Deed**

All approved cycleways are to be covered by an appropriate Deed. The Deed will include all relevant information including approved easements, construction and maintenance agreements.

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**Maintenance**

The Applicant will be required to implement the Maintenance Plan for the cycleway as detailed in Clause 7.1 above.

A copy of all inspection and repair reports is to be forwarded by the Applicant or nominated maintenance party to the relevant RailCorp District office.

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