AUSTRALIAN RAIL INDUSTRY STANDARDS ORGANISATION

AS 7633

Railway Infrastructure – Clearances

STANDARDS

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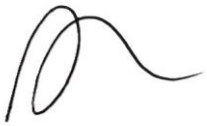
Development of this Standard was prepared by an Australian Rail Industry Standards Organisation (ARISO) Development Group consisting of representatives from the following organisations:

ARTC, Aurizon, DTP VIC, PTA WA, Queensland Rail, and TfNSW.

The Infrastructure Standing Committee verified that ARISO's accredited process was followed in developing the product, before the ARISO Board approved the document for publication.

ARISO wishes to acknowledge the positive contribution of subject matter experts in the development of this Standard. Their efforts ranged from membership of the Development Group through to individuals providing comments on a draft of the Standard during the open review.

I commend this Standard to the Australasian rail industry as it represents industry good practice and has been developed through a rigorous process.



Alan Fedda
Chief Executive Officer
Australian Rail Industry Standards Organisation

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Document history

Publication Version	Effective Date	Reason for and Extent of Change(s)
2025	19 March 2026	This document has been reviewed to ensure it remains relevant and applicable. The latest review assessed the content, confirming that while updates were made to align with current industry practices, technologies, and regulatory requirements, the original authorship and copyright have been acknowledged as required.

Approval

Name	Date
Rail Industry Safety and Standards Board	19 March 2026

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Preface

This Standard was prepared by the Railway Infrastructure – Clearances Development Group, overseen by the RISSB Infrastructure Standing Committee.

This revision updates the document to match current industry practice and related RISSB standards. Changes include clearer formatting and structure, updated Figure 1 and Figure 2 to show how rolling stock, infrastructure and clearance outlines relate, and alignment with AS 7507:2026 for consistency across standards. Key sections have been simplified for clarity and ease of use. Terminology, references and the hazard register have also been updated to reflect current engineering practice and regulatory requirements.

Objective

The objective of this Standard is to manage the risks to safety arising from the interface between rail infrastructure and rolling stock during railway operations. It achieves this by setting out the minimum clearance standards for safe operation between:

(a) rolling stock (including loads) and trackside structures and equipment; and

(b) rolling stock (including loads) on adjacent tracks.

This Standard uses key inputs from AS 7507:2026

Compliance

There are four types of provisions contained within Australian Standards developed by RISSB:

(a) Requirements.

(b) Recommendations.

(c) Permissions.

(d) Constraints.

Requirements – it is mandatory to follow all requirements to claim full compliance with the Standard. Requirements are identified within the text by the term ‘shall’.

Recommendations – do not mention or exclude other possibilities but do offer the one that is preferred. Recommendations are identified within the text by the term ‘should’.

Recommendations recognize that there could be limitations to the universal application of the control, i.e. the identified control is not able to be applied, or other controls are more appropriate or better.

For compliance purposes, where a recommended control is not applied as written in the standard it could be incumbent on the adopter of the standard to demonstrate their actual method of controlling the risk as part of their WHS or Rail Safety National Law obligations. Similarly, it could also be incumbent on an adopter of the standard to demonstrate their method of controlling the risk to contracting entities or interfacing organisations where the risk may be shared.

Permissions – conveys consent by providing an allowable option. Permissions are identified within the text by the term ‘may’.

Constraints – provided by an external source such as legislation. Constraints are identified within the text by the term ‘must’.

RISSB Standards address known hazards within the railway industry. Hazards, and clauses within this Standard that address those hazards, are listed in Appendix A.

Appendices in RISSB Standards may be designated either “normative” or “informative”. A "normative" appendix is an integral part of a Standard and compliance with it is a requirement, whereas an "informative" appendix is only for information and guidance.

Commentary

Commentary *C Preface*

This Standard includes a commentary on some of the clauses. The commentary directly follows the relevant clause, is designated by ‘C’ preceding the clause number and is printed in italics in a box. The commentary is for information and guidance and does not form part of the Standard.

Table of Contents

Figures

Tables

Section 1 Scope and general

1.1 Scope

This document defines requirements for railway infrastructure transit space clearances throughout the asset lifecycle. It also specifies a system for calculating appropriate transit space clearances and provides recommended dimensions.

This document is not specifically intended to cover cane railways, light rail or heritage railways operating on private or isolated railways, but items from this document can be applied to such systems as deemed appropriate by the relevant rail transport operator (RTO).

1.2 Normative references

The following documents are referred to in the text in such a way that *some* or all of their content constitutes requirements of this document:

- AS 7634:2017, *Railway Infrastructure Survey*
- AS 7507:2026, *Rolling Stock Outlines*
- AS ISO 31000:2018, *Risk management – Guidelines*
- UIC 777-2:2ED 2002, *Structures built over railway lines – Construction requirements in the track zone*
- *Disability Standards for Accessible Public Transport 2002* (DSAPT)

NOTE:

Documents for informative purposes are listed in a Bibliography at the back of the Standard.

1.3 Defined terms and abbreviations

For the purposes of this document, the following terms and definitions apply:

1.3.1
combined kinematic envelope
greatest permissible kinematic envelope based on the summation of all rolling stock operating on a route

1.3.2
contingency margin
gap between the kinematic envelope and a contingency outline, or between kinematic envelopes on adjacent tracks

1.3.3
contingency outline
combined kinematic envelope plus the contingency margin

1.3.4
kinematic envelope
envelope generated by the kinematic outline, centre and end throw, and taking into account the effect of track tolerances on the movement of the rolling stock

Note 1 to entry: The kinematic envelope changes in dimensions as it moves along the track due to track geometry and has an associated rolling stock kinematic outline and swept outline, as per AS 7507:2026, which details the static outline, such as body lengths and bogie centres.