

Title	Install track through a level crossing		
Level	4	Credits	5

Purpose	People credited with this unit standards are able to: explain level crossings and their installation; prepare to install, and install track through a level crossing; measure and adjust track parameters; and check work and complete documentation on installation of track through a level crossing.
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Classification	Rail Transport > Rail Infrastructure
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Available grade	Achieved
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Guidance Information

- 1 Assessment against this unit standard is to be carried out within the context of an organisation operating under a current, valid Rail Licence issued in accordance with the provisions of the Railways Act 2005. The organisation's operating rules, codes, and instructions, referred to in this unit standard, are those the organisation has in place to meet the requirements of the Rail Licence.
- 2 Legislation relevant to this unit standard includes:
Health and Safety at Work Act 2015;
Railways Act 2005.
- 3 Definitions
Organisational procedures refer to documents that include – worksite rules, codes, and practices; equipment operating instructions; documented quality management systems; and health and safety requirements.
Work plan refers to instructions that may include – work or service order, verbal instruction, formal work plan.
- 4 Assessment information
All activities and evidence must be in accordance with organisational procedures and work plan.

Outcomes and performance criteria

Outcome 1

Explain level crossings and their installation.

Performance criteria

- 1.1 Types of level crossing are explained in terms of components and usage.
- Range may include but is not limited to – Edilon Sedra embedded rail system, Holdfast, Strail, EPflex, Railseal, concrete, asphalt, timber or composite runners; evidence of three is required.
- 1.2 Types of level crossing are explained in terms of location of installation.
- Range road, pedestrian, public, private.

Outcome 2

Prepare to install track through a level crossing.

Performance criteria

- 2.1 Safety requirements are followed.
- Range personal protective equipment, materials, tools and equipment, communication equipment.
- 2.2 Hazards are identified, and control methods are implemented.
- 2.3 Rail permission systems are followed.
- Range may include but is not limited to – track protection, permit, track access.
- 2.4 Work plan for the installation of track through the level crossing is interpreted and followed.
- Range may include but is not limited to – removal of existing rail, selection of rail and fastening systems, installation method, traffic management, work methods, formation.
- 2.5 Tools and equipment are selected and pre-operational check is completed.
- 2.6 Rail is checked in terms of length and profile.
- 2.7 Rail fastening systems are checked.
- Range may include but is not limited to – fishplates, rail anchors, bolts, nuts, washers.
- 2.8 Rail to sleeper fastening systems are checked.
- Range may include but is not limited to – screwspikes, rail clips.

2.9 Sleepers are checked.

Range may include but is not limited to – concrete sleepers, concrete slab track, timber or composite sleepers.

Outcome 3

Install track through a level crossing.

Performance criteria

3.1 If required, new track and components are assembled.

3.2 Existing track and components are removed.

3.3 Rails are cut to required length.

3.4 If required, rails are crowed to the correct curvature to ensure correct track geometry is maintained.

3.5 Track and components are installed through level crossing.

Range may include but is not limited to – rail, concrete sleepers, slab track, fastenings, glued insulation joints.

Outcome 4

Measure and adjust track parameters.

Performance criteria

4.1 Track parameters are measured, and if required, adjusted.

Range may include but is not limited to – top, line, cant, gauge.

Outcome 5

Check work and complete documentation on installation of track through a level crossing.

Performance criteria

5.1 Completed work is checked for compliance with work plan.

5.2 Documentation is completed.

Planned review date	31 December 2026
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	24 February 2022	N/A

Consent and Moderation Requirements (CMR) reference

0013

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Hanga-Aro-Rau Manufacturing, Engineering, and Logistics Workforce Development Council qualifications@hangaarorau.nz if you wish to suggest changes to the content of this assessment standard.