

<b>Title</b>	<b>Demonstrate and apply knowledge of track fundamentals for rail infrastructure</b>		
<b>Level</b>	<b>3</b>	<b>Credits</b>	<b>5</b>

<b>Purpose</b>	People credited with this unit standard are able to: describe track terminology, components and equipment for rail infrastructure; interpret rail infrastructure work plan; describe track geometry and its measurement for rail infrastructure; and measure track using a track gauge.
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<b>Classification</b>	Rail Transport > Rail Infrastructure
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<b>Available grade</b>	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 may include but are not limited to the: 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.

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### Outcomes and performance criteria

#### Outcome 1

Describe track terminology, components and equipment for rail infrastructure.

**Performance criteria**

1.1 Track terminology is described.

Range may include but is not limited to – transition, tangent track, curve track, turnout.

1.2 Track components are described in terms of use.

Range may include but is not limited to – rail, joints, fastenings, bedplates, sleepers, ballast, frog, switches, checkrail.

1.3 Tools and equipment are described in terms of use.

Range hand tools, minor plant, fuel mix.

**Outcome 2**

Interpret rail infrastructure work plan.

**Performance criteria**

2.1 Work plan is interpreted in terms of its impact on candidate's role.

Range may include but is not limited – reporting line, documentation, work methods, tools and equipment, operating rules.

**Outcome 3**

Describe track geometry and its measurement for rail infrastructure.

**Performance criteria**

3.1 Track geometry features are described.

Range may include but is not limited to – cant, line, twist, gauge, top, tangent, curves, gradient, meterage.

3.2 Track geometry is described in terms of its effect on track performance.

3.3 Measuring equipment to determine track geometry is described in terms of use.

Range may include but is not limited to – track gauge, sighting boards, track evaluation car void meters, string line.

**Outcome 4**

Measure track using a track gauge.

**Performance criteria**

4.1 Track gauge is checked.

4.2 Track measurement is demonstrated and recorded.

Range may include but is not limited to – cant, gauge, checkrail clearance.

<b>Planned review date</b>	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

<b>Consent and Moderation Requirements (CMR) reference</b>	0013
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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](mailto:qualifications@hangaarorau.nz) if you wish to suggest changes to the content of this assessment standard.