

Title	Demonstrate knowledge of compaction for infrastructure works		
Level	3	Credits	6

Purpose	People credited with this unit standard are able to demonstrate knowledge of compaction for infrastructure works.
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Classification	Infrastructure Works > Infrastructure Civil Works
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Available grade	Achieved
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Guidance Information

- 1 Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with relevant legislative and industry requirements.
- 2 Legislation and references relevant to this unit standard include:
 - Health and Safety at Work Act 2015;
 - Resource Management Act 1991;
 - TNZ B/02: 2005, *Specification for Construction of Unbound Granular Pavement Layers*;
 - TNZ M/04: 2006, *Specification for Basecourse Aggregate*;
 - TNZ F/01: *Specification for earthworks construction*; available from www.nzta.govt.nz;
 and all subsequent amendments and replacements.
- 3 Definitions

Industry requirements refer to relevant policies, processes, methodologies, industry codes of practice, site specific health and safety plans, standard operating procedures, site safety plans, quality plans, work plans, traffic management plans, contract work programmes, job safety analysis, safe work method statements, job instructions, manufacturer's requirements, contract specifications, manuals, procedural documents.

Soils and aggregates refer to clays, silts, sands, gravels, crushed stone, slag, recycled concrete.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of compaction for infrastructure works.

Performance criteria

- 1.1 Soils and aggregates are described in terms of their use for compaction.
Range factors include – origin, particle size, moisture content, dry density.
- 1.2 Suitability of different soils and aggregates including their strengths and weaknesses are described for road construction, road maintenance or earthworks.
- 1.3 Soils and aggregates are described in terms of handling, storage, and haulage requirements.
- 1.4 Primary compaction and secondary compaction are described in terms of order of use and effect on soil and aggregates.
Range primary compaction includes – frequency, amplitude.
- 1.5 Compaction is described in terms of equipment and machines used and situations of use.
- 1.6 Compaction is described in terms of techniques used and the importance of method statements.
- 1.7 Compaction is described in terms of effects on layer thickness and moisture content.
- 1.8 Compaction testing is described in terms of purpose and implications of results.

Replacement information	This unit standard replaced unit standard 20477 and unit standard 25831.
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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	27 September 2018	31 December 2023
Review	2	30 September 2021	N/A

Consent and Moderation Requirements (CMR) reference	0101
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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 Connexis - Infrastructure Industry Training Organisation qualifications@connexis.org.nz if you wish to suggest changes to the content of this unit standard.