

Title	Construct forestry roads, tracks, and landings		
Level	3	Credits	20

Purpose	People credited with this unit standard are able to prepare for, and construct forestry roads, tracks, and landings.
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Classification	Infrastructure Works > Forestry Earthworks
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Available grade	Achieved
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Prerequisites	Candidates must hold a minimum of the class of licence required for the vehicle being driven and comply with the requirements of the Land Transport (Driver Licensing) Rule 1999.
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Guidance Information

- Learning and assessment within this unit standard must be carried out in an infrastructure forestry earthworks environment and in accordance with the following legislation, guidelines, and codes of practice, as relevant to their role, and any subsequent amendments:
 - Health and Safety at Work Act 2015;
 - Resource Management Act 1991;
 - Heritage New Zealand Pouhere Taonga Act 2014;
 - Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017 (Subpart 3 – Earthworks), available from <http://www.legislation.govt.nz/>;
 - Approved Code of Practice (ACOP) for Safety and Health in Forest Operations (2012), available from <https://www.worksafe.govt.nz/>;
 - Excavation Safety Good Practice Guidelines (2016), available from <https://worksafe.govt.nz/>;
 - Operator Safety Manual for Earthmoving Machinery 2017, available from <https://civilcontractors.co.nz/>;
 - Plantation Forestry Code of Practice Eliminating Alcohol and Other Drugs from the Workplace (2015), available from <https://nzfoa.org.nz/>;
 - New Zealand Forest Road Engineering Manual: Operators Guide 2020, available from <http://www.nzfoa.org.nz/>;
 - Forest Practice Guides (2020), available from <http://www.nzfoa.org.nz/>.

2 Definitions

Company requirements include the policy, procedures, and methodologies of the company. They include legislative and regulatory requirements that may apply across the company or to a specific site. Requirements are documented in the company's health and safety plans, traffic management plans, contract work programmes, quality assurance programmes, policies, and procedural documents.

Construction materials may include fill, aggregate, rock, geotextiles.

Job prescriptions are those given to the operator prior to undertaking a job. They may include site safety instructions, mapping information, contract drawings, and written memos.

Manufacturer's instructions may include specifications, installation, handling, use and maintenance instructions, and safety data sheets.

Outcomes and performance criteria

Outcome 1

Prepare for construction of forestry roads, tracks, and landings.

Performance criteria

1.1 The job is clarified in accordance with company requirements.

Range job prescriptions, plant, construction materials, logistics, personnel;
may include but is not limited to – consents, site visit/s.

1.2 Health and safety measures are put in place in accordance with company requirements.

Range personal protective equipment, hazard identification and controls, emergency procedures;
may include but is not limited to – signage, traffic management, communication coverage.

Outcome 2

Construct forestry roads, tracks, and landings.

Performance criteria

2.1 Site is cleared and stripped in accordance with job prescriptions and company requirements.

Range may include but is not limited to – placement of stumps, slash, spoil, removing organic material, identifying and removing wet spots.

- 2.2 Forestry bulk earthworks are carried out in accordance with job prescriptions and company requirements.
- Range may include but is not limited to – cut and fill, end haul, dimensions, gradient, corner formation, benching, batter slope.
- 2.3 Forestry infrastructure is shaped and formed in accordance with job prescriptions and company requirements.
- Range may include but is not limited to – final shape, preparation for water controls, shoulder, camber, superelevation, crossfall.
- 2.4 Compaction is carried out in accordance with site and company requirements.
- Range may include but is not limited to – consideration of machinery type, measurement techniques, material types.
- 2.5 Drainage, erosion and sediment control measures are installed in accordance with job prescriptions and company requirements.
- Range may include but is not limited to – drainage culvert, water table, cut-out, flume, berm, sediment trap, soak hole, sediment retention pond, bunding, armouring.
- 2.6 Machinery is operated in accordance with manufacturer's instructions and company requirements.

Planned review date	31 December 2028
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	23 November 2003	31 December 2014
Review	2	17 September 2010	31 December 2016
Review	3	19 February 2015	31 December 2025
Review	4	25 May 2023	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 Waihanga Ara Rau Construction and Infrastructure Workforce Development Council qualifications@waihangaararau.nz if you wish to suggest changes to the content of this unit standard.