

Title	Demonstrate knowledge, and supervise the installation, of a building site ground retention system		
Level	5	Credits	8

Purpose	People credited with this unit standard are able to: demonstrate knowledge of soil types and ground retention systems for building construction sites; and supervise the installation of a ground retention system on a building construction site.
----------------	---

Classification	Construction Trades > Carpentry
-----------------------	---------------------------------

Available grade	Achieved
------------------------	----------

Guidance Information

1 Definitions

Contract documentation refers to plans and drawings, contract drawings, work or product specifications relating to the specified construction site operation.

Job requirements mean the requirements of the job, which can include requirements of the specifications, and also aspects outside the specifications such as time requirements, equipment requirements, labour requirements, and requirements to work around other jobs being conducted at the same time.

Work site practice refers to the documented procedures specific to a work site which set out the standard and required practices of that work site.

2 Practical elements of this unit standard may be assessed on the basis of evidence of demonstrated performance in the workplace or in simulated work situations designed to draw upon similar performance to that required in a workplace.

3 Legislation relevant to this unit standard includes:

- Health and Safety at Work Act 2015 and Health and Safety in Employment Regulations 1995;
- Building Act 2004, Building (Forms) Regulations 2004;
- Resource Management Act 1991;
- New Zealand Building Code;
available from <https://www.legislation.govt.nz/>
- WorkSafe New Zealand *Excavation safety*, available from www.worksafe.govt.nz;
and all subsequent amendments and replacements.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of soil types.

Range clay, silt, sand, gravel, peat, rock.

Performance criteria

- 1.1 Types of soil are classified and described in terms of their bearing capacity and behaviour under load.
- 1.2 Methods of site testing the capacity of soil types are described and explained in terms of information gained from testing.

Outcome 2

Demonstrate knowledge of ground retention systems for building construction sites.

Range reinforced earth, gravity, tied back, sheet piling, secant piling, raking shores, underpinning, timber poles.

Performance criteria

- 2.1 Types of ground retention system are identified and their uses for excavation conditions are described in accordance with work site practice.
- 2.2 Height and the incorporation of design factors are described in terms of ground retention systems.

Range design factors – geometry of the system, impacted changes on geometry in relation to loads on the system.
- 2.3 Protective measures for excavations exposed to weather during construction are described in terms of their type and the way in which they protect the face of the excavation in accordance with work site practice.
- 2.4 Methods of construction of ground retention systems are described in accordance with work site practice.

Outcome 3

Supervise the installation of a ground retention system on a building construction site.

Performance criteria

- 3.1 Work activities are planned for the installation of the ground retention system.
- 3.2 Excavation work methods and machinery are described in accordance with work site practice.

3.3 Methods of controlling water are described in terms of job requirements from contract documentation.

Range surface water, ground water.

3.4 Work methods of site personnel are supervised in accordance with work site practice.

Range contractors, sub-contractors, employees.

3.5 Health and safety procedures are applied in accordance with work site practice and WorkSafe guidelines.

3.6 All required inspections are carried out in accordance with work site practice.

Planned review date	31 December 2027
----------------------------	------------------

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	22 September 2004	31 December 2025
Rollover and Revision	2	12 December 2008	31 December 2025
Review	3	15 April 2011	31 December 2025
Review	4	30 March 2023	N/A

Consent and Moderation Requirements (CMR) reference	0048
--	------

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.