

Place and finish exposed aggregate concrete for concrete construction on site

Level 3

Credits 8

Purpose People credited with this unit standard are able to: demonstrate knowledge of conditions that affect placing and finishing of exposed aggregate concrete; place concrete for exposed aggregate concrete construction on site; expose aggregate finish to concrete on site; and complete work operations on site.

Subfield Concrete

Domain Concrete Construction

Status Registered

Status date 16 April 2010

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Planned review date 31 December 2014

Entry information Recommended: Unit 26048, *Place and finish concrete for concrete construction on site*, or demonstrate equivalent knowledge and skills.

Accreditation Evaluation of documentation and visit by NZQA and industry.

Standard setting body (SSB) Building and Construction Industry Training Organisation

Accreditation and Moderation Action Plan (AMAP) reference 0048

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

Special notes

1 Definitions

Specifications refers to documented instructions (oral, written, graphic) and may include any of the following: manufacturer's specifications, recommendations or technical data sheets; material specifications; specifications from a specialist source such as an architect, designer, engineer or a supervisor; site or work specific requirements.

Workplace practice refers to the documented procedures specific to a workplace which set out the standard and required practices of that workplace.

- 2 Credit for this unit standard indicates compliance with industry practice. *Industry practice* refers to the ability to demonstrate knowledge and skills that reflect the productivity, uniformity, finish quality and material economies currently accepted within industry.
- 3 Assessment against this unit standard must be undertaken on site. *On site* refers to a wide range of building and construction environments within which trade skills are required, and includes concrete production and concrete construction sites.
- 4 Legislation and publications relevant to this unit standard include: Health and Safety in Employment Act 1992 and Health and Safety in Employment Regulations 1995; Resource Management Act 1991; NZS 3109:1997 *Concrete construction* and NZS 3114:1987 *Specification for concrete surface finishes*, available from Standards New Zealand (<http://www.standards.co.nz>).

Elements and performance criteria

Element 1

Demonstrate knowledge of conditions that affect placing and finishing of exposed aggregate concrete.

Performance criteria

- 1.1 The effects of ambient weather and site conditions on exposed aggregate concrete are identified and described in terms of actions required to mitigate them.

Range heat, wind, cold, wet, sub-base conditions.

- 1.2 The effects of additives and admixtures on exposed aggregate concrete in a plastic state are identified and described with consideration for their impact on bleeding, timing and any seasonal effects on the concrete.

Range blended cements, admixtures, additives.

Element 2

Place concrete for exposed aggregate concrete construction on site.

Performance criteria

- 2.1 Concrete is placed in accordance with job specifications.

Range factors to be checked – mix design, segregation, layers, free forming, screeding, concrete strength, slump, continuity of supply, placement of shrinkage control joints, weather conditions.

Element 3

Produce an exposed aggregate finish to concrete on site.

Performance criteria

- 3.1 Wet concrete surfaces are finished in accordance with NZS 3109, NZS 3114, and job specifications.
- Range trowelled to soft and/or smooth finish.
- 3.2 Any required seeding of aggregate to concrete surface is performed in accordance with job specifications.
- 3.3 Surface retarders are sprayed onto finished concrete surfaces for the required time period in accordance with manufacturer's recommendations.
- 3.4 Surfaces are washed and broomed off to remove topping according to weather conditions, exposure to sunlight and manufacturer's recommendations.
- 3.5 Surfaces are acid washed in accordance with manufacturer's specifications.
- 3.6 Surfaces are sealed in accordance with manufacturer's specifications.

Element 4

Complete work operations on site.

Performance criteria

- 4.1 All operations are safely completed; workplace and equipment are cleaned in accordance with workplace practice and environmental safety requirements, and routine maintenance is carried out in accordance with workplace practice.

Please note

Providers must be accredited by NZQA, or an inter-institutional body with delegated authority for quality assurance, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be accredited by NZQA before they can register credits from assessment against unit standards.

Accredited providers and Industry Training Organisations assessing against unit standards must engage with the moderation system that applies to those standards.

Accreditation requirements and an outline of the moderation system that applies to this standard are outlined in the Accreditation and Moderation Action Plan (AMAP). The AMAP also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

Comments on this unit standard

Please contact the Building and Construction Industry Training Organisation national.office@bcito.org.nz if you wish to suggest changes to the content of this unit standard.