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| Title | Install and maintain foulwater drains | | |
| Level | 4 | Credits | 5 |

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| Purpose | <p>This unit standard is for people who work in the drainlaying industry.</p> <p>People credited with this unit standard are able to:</p> <ul style="list-style-type: none"> – install foulwater drains; – install access points; and – identify foulwater drain defects and rectify. |
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| Classification | Plumbing, Gasfitting and Drainlaying > Drainlaying |
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| Available grade | Achieved |
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Guidance Information

1 References

Plumbers, Gasfitters, and Drainlayers Act 2006;
 Health and Safety at Work Act 2015;
 Building Act 2004;
 Health Act 1956;
 Resource Management Act 1991;
 Plumbers, Gasfitters, and Drainlayers Regulations 2010;
 The following standards, which are available at <http://www.standards.govt.nz>:
 AS/NZS 1547:2000 *On-site domestic wastewater management*
 AS/NZS 1546.1:2008 *On-site domestic wastewater treatment units – Septic tanks*
 AS/NZS 3500.2:2003 *Plumbing and drainage – Sanitary plumbing and drainage; Good practice guidelines – Excavation safety*, Wellington: WorkSafe New Zealand, 2016, available at <http://www.worksafe.govt.nz/worksafe>;
 The following clauses, and any related compliance documents, which are available at <https://www.building.govt.nz/>:
 New Zealand Building Code Clause E1 Surface Water
 New Zealand Building Code Clause G12 Water Supplies
 New Zealand Building Code Clause G13 Foul Water;
 and all subsequent amendments and replacements.

2 Definitions

Job specifications – instructions (oral, written, graphic) and may include any of the following: manufacturers' instructions; design drawing detail specifications; specifications from a specialist source such as an architect, designer, engineer, or a supervisor; and site or work specific requirements. Where job specifications are in conflict with applicable legislation, standards, and/or codes, such legislation, standards, and/or codes shall take precedence for the purpose of assessment.

Other services – any existing installed services such as water, gas, electricity, or telephone network cables.

- 3 Any preparatory and finishing work associated with the installation and maintenance of drains must be carried out in accordance with the requirements of the job specifications, site conditions, relevant standards and codes, and the Building Act 2004. May include but is not limited to excavation, base stabilisation, backfill and compaction, site remediation.
- 4 This unit standard requires evidence of foul water drainage installations that in aggregate include at least three fittings, including a gully, a pan connection, and a separate vent.
- 5 All practical activities must be carried out in a way that avoids harm to people and damage to property, environment, other services, materials, tools, and equipment.
- 6 Candidates must hold a current limited certificate or exemption under supervision as issued under the Plumbers, Gasfitters, and Drainlayers Act 2006.
- 7 All performance criteria will be assessed in accordance with the requirements of the job specifications, site conditions, relevant standards and codes, and the Building Act 2004.

Outcomes and performance criteria

Outcome 1

Install foulwater drains

Range pipework includes pipes and associated fittings;
 pipes – uPVC, polyethylene, earthenware, concrete, steel, ABS, cast iron,
 copper, brass;
 evidence of uPVC plus one other is required.

Performance criteria

- 1.1 Select pipe and pipework of appropriate specifications.
- 1.2 Cut pipe accurately to correct dimensions.
- 1.3 Install and connect pipework.
- 1.4 Carry out soundness tests and record outcomes.

Outcome 2

Install access points.

Range includes but is not limited to – inspection points, rodding points, cleaning eyes.

Performance criteria

- 2.1 Select appropriate type of access point.
- 2.2 Position access point according to the type of access point and the purpose it is to serve.
- 2.3 Install access point and any associated pipework and fittings.
- 2.4 Use appropriate methods of jointing access point to pipework according to the materials being joined.
- Range two of – band clamped sleeve, plaster/epoxy mortar (epoxy resin), rubber ring.

Outcome 3

Identify foulwater drain defects and rectify.

Range pipework includes associated fittings;
pipes – may include but is not limited to uPVC, polyethylene, earthenware, concrete.

Performance criteria

- 3.1 Identify common types, and causes of defects, and the appropriate means of rectification.
- Range rectification includes - repair, replace, clear.
- 3.2 Clear foulwater drain pipe or pipework and ensure free flow.
- 3.3 Repair a foulwater drain by cutting in a replacement section to a laid drain of a dissimilar material.
- 3.4 Demonstrate jointing methods appropriate for the materials being joined.
- Range band clamped sleeve, plaster/epoxy mortar (epoxy resin), compression, glue/solvent cement/solvent weld, rubber ring.
evidence of four is required.

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| Replacement information | This unit standard and unit standard 30530 replaced unit standard 1114, unit standard 1115, unit standard 1117, and unit standard 27336. |
| Planned review date | 31 December 2022 |

Status information and last date for assessment for superseded versions

| Process | Version | Date | Last Date for Assessment |
|--------------|---------|-------------------|--------------------------|
| Registration | 1 | 28 September 2017 | N/A |

Consent and Moderation Requirements (CMR) reference

0003

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

Comments on this unit standard

Please contact The Skills Organisation reviewcomments@skills.org.nz if you wish to suggest changes to the content of this unit standard.