

**Field**      **Engineering and Technology**

**Review of *Infrastructure Laboratory* unit standards**

<b>Subfield</b>	<b>Domain</b>	<b>ID</b>
Infrastructure Civil Engineering	Infrastructure Laboratory	26628-26683, 28716-28721

Connexis has completed the review of the unit standards listed above.

**Date new versions published**

**January 2020**

**Planned review date**

**December 2024**

**Summary**

The review of these unit standards was prompted by the review of the New Zealand Certificate in Civil Engineering Laboratory (Level 4) [Ref: 2692] and the New Zealand Certificate in Civil Engineering Laboratory (Level 5) [Ref: 2693].

Stakeholders confirmed the need for these unit standards to be updated and aligned with current industry practice. Feedback from assessors was endorsed at a meeting of industry representatives in July 2019. Changes to industry standards in existing unit standards were circulated and were confirmed by stakeholders.

**Main changes**

- Guidance information was updated to ensure currency with industry knowledge and practice.
- Titles of unit standards were modified to clarify their intent.
- Unit 26629 was condensed to one outcome to remove repetition.
- 'Reporting' is already included in the definition of 'perform' in Units 26635, 26637, 26644, 26646, 26648, 26665, 26670, 26674, 26677, and 28721 so these unit standards were condensed to remove duplication.
- Range statements were modified in response to industry feedback.
- A new unit standard was developed in response to industry feedback.

**The last date for assessment of superseded versions of Category B unit standards is December 2021**

**Detailed list of unit standards – classification, title, level, and credits**

All changes are in **bold**.

<b>Key to review category</b>	
<b>A</b>	Dates changed, but no other changes are made - the new version of the standard carries the same ID and a new version number
<b>B</b>	Changes made, but the overall outcome remains the same - the new version of the standard carries the same ID and a new version number
<b>C</b>	Major changes that necessitate the registration of a replacement standard with a new ID
<b>D</b>	Standard will expire and not be replaced

Engineering and Technology > Infrastructure Civil Engineering > Infrastructure Laboratory

ID	Title	Level	Credit	Review Category
26628	Plan and conduct daily civil engineering laboratory work activities <b>Plan and conduct daily work activities in a civil engineering laboratory</b>	3	10	B
26629	Operate and maintain basic civil engineering laboratory equipment <b>Operate and maintain basic equipment in a civil engineering laboratory</b>	3	10	B
26630	Operate and maintain civil engineering laboratory pressure measurement equipment <b>Operate and maintain equipment to measure pressure in a civil engineering laboratory</b>	3	3	B
26631	Operate and maintain civil engineering laboratory force measurement equipment <b>Operate and maintain equipment to measure force in a civil engineering laboratory</b>	3	3	B
26632	Describe civil engineering field sampling <b>Describe field sampling in civil engineering</b>	3	5	B
26633	Calibrate and maintain civil engineering laboratory test equipment <b>Calibrate and maintain test equipment in a civil engineering laboratory</b>	4	8	B
26634	Describe civil engineering laboratory aggregate source property tests <b>Describe aggregate source property tests in a civil engineering laboratory</b>	4	8	B
26635	Perform civil engineering laboratory aggregate source property tests <b>Perform aggregate source property tests in a civil engineering laboratory</b>	4	16	B
26636	Describe civil engineering laboratory aggregate production tests <b>Describe aggregate production tests in a civil engineering laboratory</b>	4	10	B
26637	Perform civil engineering laboratory aggregate production tests <b>Perform aggregate production tests in a civil engineering laboratory</b>	4	18	B
26638	Describe and complete civil engineering laboratory aggregate sampling <b>Describe and complete aggregate sampling in civil engineering</b>	4	12	B
26639	Explain civil engineering laboratory aggregate source property tests <b>Explain aggregate source property tests in a civil engineering laboratory</b>	5	18	B
26640	Evaluate and troubleshoot civil engineering laboratory aggregate source property tests <b>Evaluate and troubleshoot aggregate source property tests in a civil engineering laboratory</b>	5	14	B

26641	Explain civil engineering laboratory aggregate production tests <b>Explain aggregate production tests in a civil engineering laboratory</b>	5	20	B
26642	Evaluate and troubleshoot civil engineering laboratory aggregate production tests <b>Evaluate and troubleshoot aggregate production tests in a civil engineering laboratory</b>	5	14	B
26643	Describe civil engineering laboratory soil classification tests <b>Describe soil classification tests in a civil engineering laboratory</b>	4	10	B
26644	Perform civil engineering laboratory soil classification tests <b>Perform soil classification tests in a civil engineering laboratory</b>	4	10	B
26645	Describe civil engineering laboratory soil density and compaction tests <b>Describe soil density and compaction tests in a civil engineering laboratory</b>	4	8	B
26646	Perform civil engineering laboratory soil density and compaction tests <b>Perform soil density and compaction tests in a civil engineering laboratory</b>	4	12	B
26647	Describe civil engineering laboratory soil strength tests <b>Describe soil strength tests in a civil engineering laboratory</b>	4	8	B
26648	Perform civil engineering laboratory soil strength tests <b>Perform soil strength tests in a civil engineering laboratory</b>	4	12	B
26649	Describe and complete civil engineering laboratory soil sampling <b>Describe and complete soil sampling in civil engineering</b>	4	10	B
26650	Explain civil engineering laboratory specialist soil tests <b>Explain specialist soil tests in a civil engineering laboratory</b>	5	24	B
26651	Evaluate and troubleshoot civil engineering laboratory specialist soil tests <b>Evaluate and troubleshoot specialist soil tests in a civil engineering laboratory</b>	5	18	B
26652	Explain civil engineering laboratory soil classification tests <b>Explain soil classification tests in a civil engineering laboratory</b>	5	20	B
26653	Evaluate and troubleshoot civil engineering laboratory soil classification tests <b>Evaluate and troubleshoot soil classification tests in a civil engineering laboratory</b>	5	5	B
26654	Explain civil engineering laboratory soil density and compaction tests <b>Explain soil density and compaction tests in a civil engineering laboratory</b>	5	12	B

26655	Evaluate and troubleshoot civil engineering laboratory soil density and compaction tests <b>Evaluate and troubleshoot soil density and compaction tests in a civil engineering laboratory</b>	5	6	B
26656	Explain civil engineering laboratory soil strength tests <b>Explain soil strength tests in a civil engineering laboratory</b>	5	12	B
26657	Evaluate and troubleshoot civil engineering laboratory soil strength tests <b>Evaluate and troubleshoot soil strength tests in a civil engineering laboratory</b>	5	6	B
26658	Explain civil engineering laboratory fresh concrete tests <b>Explain fresh concrete tests in a civil engineering laboratory</b>	5	10	B
26659	Evaluate and troubleshoot civil engineering laboratory fresh concrete tests <b>Evaluate and troubleshoot fresh concrete tests in a civil engineering laboratory</b>	5	10	B
26660	Explain civil engineering laboratory non-destructive testing of hardened concrete <b>Explain non-destructive testing of hardened concrete in a civil engineering laboratory</b>	5	10	B
26661	Evaluate and troubleshoot civil engineering laboratory non-destructive testing of hardened concrete <b>Evaluate and troubleshoot non-destructive testing of hardened concrete in a civil engineering laboratory</b>	5	10	B
26662	Explain civil engineering laboratory concrete strength and density tests <b>Explain concrete strength and density tests in a civil engineering laboratory</b>	5	10	B
26663	Evaluate and troubleshoot concrete strength and density tests <b>Evaluate and troubleshoot concrete strength and density tests in a civil engineering laboratory</b>	5	10	B
26664	Describe civil engineering laboratory field investigation tests <b>Describe field investigation tests in civil engineering</b>	4	15	B
26665	Perform civil engineering laboratory field investigation tests <b>Perform field investigation tests in civil engineering</b>	4	15	B
26666	Explain civil engineering laboratory field investigation tests <b>Explain field investigation tests in a civil engineering laboratory</b>	5	15	B
26667	Evaluate and troubleshoot civil engineering laboratory field investigation tests <b>Evaluate and troubleshoot field investigation tests in a civil engineering laboratory</b>	5	15	B
26668	Describe and complete civil engineering laboratory asphalt sampling <b>Describe and complete asphalt sampling in civil engineering</b>	4	5	B

26669	Describe civil engineering laboratory asphalt tests <b>Describe asphalt tests in a civil engineering laboratory</b>	4	15	B
26670	Perform civil engineering laboratory asphalt tests <b>Perform asphalt tests in a civil engineering laboratory</b>	4	15	B
26671	Explain civil engineering laboratory asphalt tests <b>Explain asphalt tests in a civil engineering laboratory</b>	5	20	B
26672	Evaluate and troubleshoot civil engineering laboratory asphalt tests <b>Evaluate and troubleshoot asphalt tests in a civil engineering laboratory</b>	5	12	B
26673	Describe civil engineering laboratory bitumen or modified bitumen tests <b>Describe bitumen or modified bitumen tests in a civil engineering laboratory</b>	4	15	B
26674	Perform civil engineering laboratory bitumen or modified bitumen tests <b>Perform bitumen or modified bitumen tests in a civil engineering laboratory</b>	4	15	B
26675	Describe and complete civil engineering laboratory bituminous binder sampling <b>Describe and complete bituminous binder sampling in civil engineering</b>	4	8	B
26676	Describe civil engineering laboratory bitumen emulsion tests <b>Describe bitumen emulsion tests in a civil engineering laboratory</b>	4	10	B
26677	Perform civil engineering laboratory bitumen emulsion tests <b>Perform bitumen emulsion tests in a civil engineering laboratory</b>	4	12	B
26678	Explain civil engineering laboratory bitumen or bitumen modified tests <b>Explain bitumen or modified bitumen tests in a civil engineering laboratory</b>	5	20	B
26679	Evaluate and troubleshoot civil engineering laboratory bitumen or modified bitumen tests <b>Evaluate and troubleshoot bitumen or modified bitumen tests in a civil engineering laboratory</b>	5	10	B
26680	Explain civil engineering laboratory bitumen emulsion tests <b>Explain bitumen emulsion tests in a civil engineering laboratory</b>	5	8	B
26681	Evaluate and troubleshoot civil engineering laboratory bitumen emulsion tests <b>Evaluate and troubleshoot bitumen emulsion tests in a civil engineering laboratory</b>	5	7	B
26682	Explain civil engineering laboratory bitumen sprayer tests <b>Explain bitumen sprayer tests in a civil engineering laboratory</b>	5	10	B

26683	Perform civil engineering laboratory bitumen sprayer tests <b>Perform bitumen sprayer tests in a civil engineering laboratory</b>	5	15	B
28716	Determine, evaluate, and report on precision and bias in civil engineering laboratory proficiency data <b>Determine, evaluate, and report on precision and bias in proficiency data in a civil engineering laboratory</b>	5	6	B
28717	Apply mathematical methods to civil engineering laboratory testing <b>Apply mathematical methods to testing in a civil engineering laboratory</b>	3	4	B
28718	Describe civil engineering laboratory fresh and hardened concrete sampling <b>Describe fresh and hardened concrete sampling methods in civil engineering</b>	4	6	B
28719	Perform civil engineering laboratory concrete sampling <b>Perform concrete sampling in civil engineering</b>	4	4	B
28720	Describe civil engineering laboratory concrete tests <b>Describe concrete tests in a civil engineering laboratory</b>	4	8	B
28721	Perform civil engineering laboratory concrete tests <b>Perform concrete tests in a civil engineering laboratory</b>	4	16	B
32027	<b>Quantify and validate the uncertainty of measurement in test results in a civil engineering laboratory</b>	5	5	New