
Frequently Asked Questions about CCC IDS As-built Requirements

Version: 1.0
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Question:

I have been asked to supply a CAT. What is the correct process?

Answer:

- a. Read the information in CCC's as-built requirements page, <https://ccc.govt.nz/consents-and-licences/construction-requirements/infrastructure-design-standards/as-built-survey-and-data-requirements/>, taking particular note of the master SAG document, <https://ccc.govt.nz/assets/Documents/Consents-and-Licences/construction-requirements/IDS/As-Built-Data-Requirements/IDS-Survey-As-built-Guideline.pdf>.
- b. Confirm list of assets to be populated within CAT(s) with CCC asset engineer and/or project manager.
- c. Commence surveying.
- d. Complete CAT(s) sheet.
- e. Validate CAT(s).
- f. Make required correction(s).
- g. Submit CAT(s) to CCC.

NOTE:

- i) For validating and submitting Land Improvements and/or 3 Waters reticulation assets, request access to 'As-built data portal', <https://ccc.govt.nz/consents-and-licences/construction-requirements/infrastructure-design-standards/as-built-data-portal/>.
- ii) For Stations CAT submit via email to CCC PM or sub-division engineer.
- iii) For Land drainage CAT submit via email to cccassetsystems@ccc.govt.nz.

Question:

What CAT should I use to submit asset data to council?

Answer:

Please discuss with your CCC project manager / engineer to agree on the list of assets to be submitted as part of the as-built(s). Once this list is confirmed, please go to the as-built requirements page and select appropriate CAT(s), <https://ccc.govt.nz/consents-and-licences/construction-requirements/infrastructure-design-standards/as-built-survey-and-data-requirements/>. Use the following table to determine what CAT(s) need to be used depending on the assets involved.

Type of Assets	CAT to be used
3 Waters Reticulation assets such as Pipes, Manholes, Valves etc.	Reticulation CAT
Assets installed in a Pump Station such as Pumps, Motors, Control Panel, etc.	Station CAT
Land Drainage Assets installed along water courses such as Channels, Weirs, Flumes, etc.	Land Drainage CAT
Above ground land improvement assets installed for Parks and/or road landscaping such as Garden, Furniture, Play Equipment, etc.	Land Improvement CAT

Question:

How do I identify the survey accuracy used when locating assets?

Answer:

See section 3 of the SAG, <https://ccc.govt.nz/assets/Documents/Consents-and-Licences/construction-requirements/IDS/As-Built-Data-Requirements/IDS-Survey-As-built-Guideline.pdf>.

Question:

What projected coordinate system should I be using when recording asset locations?

Answer:

See section 3 of the SAG, <https://ccc.govt.nz/assets/Documents/Consents-and-Licences/construction-requirements/IDS/As-Built-Data-Requirements/IDS-Survey-As-built-Guideline.pdf>.

Question:

How does one find out the asset id for existing assets so they can be appropriately identified in the CAT when the 'Asset Record Capture Type' is equal to 'Existing Asset – Update Record'?

Answer:

For all spatial assets,

- a. Identify asset layer from CCC open-data portal (<https://opendata.ccc.govt.nz/public-portal/>).
- b. Ensure correct layers, e.g. vwOpenDataWwAccess, have been added to the map view of your GIS software, e.g. ArcGIS or QGIS.
- c. Select the specific asset that requires updating.
- d. View the asset attributes pertaining to the asset to verify/confirm.
- e. Copy and paste the SAPInternalReferenceID into Column E – Unique ID, this is the ID of the asset which needs updating.

For all stations assets, please contact your CCC project manager/engineer.

Question:

What is the recommended photo size when submitting a CAT?

Answer: We would prefer photo size limited to 1Mb.

Following is the suggested guideline on photos

- Orientation: Landscape
- Dimensions: 1080x810
- Width: 1080 pixels
- Height: 810 pixels
- Horizontal resolution: 72 dpi
- Vertical resolution: 72dpi
- Compression: none
- Colour representation: sRGB
- Capture Quality: 1 MB
- Format: jpg
- Include GPS Coordinates (GPS in the device need to be enabled).
- The date should be stamped on the photo.

Photos naming convention:

- If the asset is new, the file name should be as temporary id_ddmmyy.jpg.
- If it's a photo from an existing asset, it should be named as sapequipmentnumber_ddmmyy.jpg.

Question:

How does one capture an attribute value when the required valued is not found in the corresponding dropdown list?

Answer:

- For the attribute in question, select 'Not In List', in the CAT.
- Select the NotInList tab and proceed to provide the relevant information
 - SAG Feature Number corresponds to the feature class code provided in the CAT, e.g. gardens are J01.
 - Unique Name will be whatever id you, as the CAT submitter, has assigned to the asset, e.g. G0001.
 - Attribute Name comes from the description provided in the CAT, e.g. 'Surround Construction Material'.
 - Attribute Value Added is where to capture the new value you are recommending be added to the dropdown list, e.g. 'Asphalt'.
 - Comments is here to capture any other relevant information that will assist CCC staff with understanding why you are proposing the addition of the new attribute value.

NOTE:

- i) This process needs to be followed for each asset that require the new value. Doing this enables CCC to capture the extent to which the proposed value will be used and assists with identification when more than one new value is proposed for the same attribute.
- ii) This solution is only available for the Land Improvements CAT. Other CATs will be updated to include this solution in the future. For the time being, please provide relevant information in cell B2 of the SurveyAsbuiltReport tab.

Question:

I have received an error when validating my CAT. What does it mean and what do I do to fix the issue?

Answer:

See Appendix 1 of this document.

Appendix 1

IDS Reticulation CAT Validation Error Message Details (IDS Reticulation 1.00)

Error codes and their descriptions are grouped here based on their type/level (i.e. Template, Feature, Attribute) and then ordered on their commonness.

Common Template Errors:

Error Code:	11111, 11163
Check Level:	Template
Example Error Message:	<i>The column name 'Pipe Size' should be in Column K of the Line Asset Inputs sheet. Please ensure you are using the correct template for Revision: X.XX</i>
Test Details:	This test checks the column headers in a CAT are in the expected column (Revision dependant).
Potential Error Cause and Fix:	<p>This error can be caused by a legacy version of the CAT file being used or columns in the CAT file being deleted or inserted.</p> <p>Ensure you are using the correct version of the CAT file. The latest (and supported) version of the CAT file can be found here: https://www.ccc.govt.nz/consents-and-licences/construction-requirements/infrastructure-design-standards/as-built-survey-and-data-requirements/</p>

Common Feature Errors:

Error Code:	11144
Check Level:	Feature
Example Error Message:	<i>Lateral has a first (downstream) vertex that does not intersect with a pipe.</i>
Test Details:	This test checks that Lateral features have been captured in the correct direction (from downstream to upstream). This test checks for an intersection between the first lateral vertex (point) and a Pipe, Manhole, Junction or Eye feature.
Potential Error Cause and Fix:	<p>A common cause of this error is where the Lateral feature has been captured in an upstream-downstream direction.</p> <p>Another common cause of this is where the downstream vertex (point) of the Lateral feature does not fall within 0.3 metres of a Pipe, Manhole, Junction or Eye feature.</p> <p>Ensure all Lateral features (with the exception of Storm Water Laterals that discharge to the curb) intersect a Pipe, Manhole, Junction or Eye feature at their downstream vertex (point).</p>

Error Code:	11142
Check Level:	Feature
Example Error Message:	<i>E19 feature 'Lateral 1' does not have an Inspection Point feature.</i>
Test Details:	This test checks that Storm Water and Waste Water Lateral features have an associated Inspection Point feature (either recorded as “Type of lateral junction” and “Distance of IP from lateral start (from connection to existing private lateral) in mm” attribute values or a separate Inspection Point feature.
Potential Error Cause and Fix:	<p>A common cause of this error is where the “Type of lateral junction” and “Distance of IP from lateral start (from connection to existing private lateral) in mm” on the Lateral feature have been left blank and the Lateral feature does not have an Inspection Point feature within 0.3 metres of it.</p> <p>Ensure all Storm Water and Waste Water Lateral features have the “Type of lateral junction” and “Distance of IP from lateral start (from connection to existing private lateral) in mm” attributes populated, or ensure the Lateral feature is within 0.3 metres of An Inspection Point feature.</p>

Error Code:	11168
Check Level:	Feature
Example Error Message:	<i>The attribute "Unique Name From Design Data" (Unique identifier from drawing) is mandatory and must be supplied.</i>
Test Details:	<p>Checks that all assets features in the CAT file have a Unique Name From Design Data.</p> <p>This name is used as the unique identifier of the asset feature for validation and processing. Without a unique name, the asset feature cannot be differentiated from others.</p> <p>Where possible, use the unique identifier for the asset that has been assigned to the asset in the design drawing. Where the asset has not been assigned a unique identifier, give it a name that is unique to that asset in that CAT file.</p>
Potential Error Cause and Fix:	<p>The "Unique Name From Design Data" field has been left blank for an asset feature.</p> <p>Ensure all asset features in the CAT file have a Unique Name From Design Data.</p>

Error Code:	11123
Check Level:	Feature
Example Error Message:	<i>The supplied coordinates (806245.164 , 392421.787) are outside the bounds of the acceptable coordinate systems (MTP2000 or NZTM).</i>
Test Details:	<p>Checks the supplied coordinates (Eastings and Northings) are within the bounding-box range for NZTM or MTP2000 for the Christchurch City Council Territorial Local Authority area.</p> <p>The CCC Infrastructure Design Standards (IDS) permit the supply of as-built asset information in either NZTM (New Zealand Transverse Mercator 2000) or MTP2000 (Mount Pleasant 2000).</p> <p>More information on these coordinate systems can be found here: https://www.linz.govt.nz/data/geodetic-system/datums-projections-and-heights/projections/new-zealand-transverse-mercator-2000 https://www.linz.govt.nz/data/geodetic-system/datums-projections-and-heights/projections/nzgd2000-meridional-circuits</p>
Potential Error Cause and Fix:	<p>Common causes of this error are Eastings and Northings in the incorrect columns in the CAT (Eastings and Northings swapped around), numerals missing from the Eastings and Northings, or decimal points in the wrong place in the Easting or Northing.</p> <p>An error in either the Easting or Northing (or both) will place the coordinate outside of the bounding boxes for Christchurch, and raise this error message.</p> <p>Ensure all Eastings and Northings are in NZTM or MTP2000 and within Christchurch.</p>

Error Code:	11121
Check Level:	Feature
Example Error Message:	<i>The feature E06 Inspection Chamber on row 3 does not have a location supplied for it.</i>
Test Details:	Checks that Easting and Northing is populated for all surveyed asset features (i.e. excludes Repair features) and that the Easting and Northing values are numeric.
Potential Error Cause and Fix:	<p>The Easting and/or Northing value for the asset feature is non-numeric (or cannot be converted to numeric) or is blank.</p> <p>Ensure all Eastings and Northings are populated with numeric values.</p>

Error Code:	11138
Check Level:	Feature
Example Error Message:	<i>The vertex order of points specified for a gravity line feature must be entered from downstream to upstream and the resulting flow direction must be downhill.</i>
Test Details:	<p>Checks the order of the Vertices/Points (rows in CAT) for Gravity Pipe asset features.</p> <p>The points along the Gravity Pipe asset must be collected from downstream to upstream. This check is conducted using the Vertex Order and the RL (Invert level at vertex) for each Vertex/Point.</p>
Potential Error Cause and Fix:	<p>Ensure the vertices/points of the Gravity Pipe asset feature and collected and entered into the CAT in a downstream (i.e. lowest RL) to upstream (i.e. highest RL) order.</p> <p>In many cases the Vertex Order in the CAT sheet can be adjusted (i.e. reordered) to rectify this error.</p>

Error Code:	11133
Check Level:	Feature
Example Error Message:	<i>Some attributes change unexpectedly along this line feature. If the change is real (e.g. a change in material or diameter), then consider using a different Unique Name for that length of line.</i>
Test Details:	<p>Checks that all attributes recorded for a line or polygon asset feature (multiple rows in CAT) has consistent attribute values.</p> <p>It is valid to have different mE, mN, RL and Vertex Order values for the rows that make up the asset feature, but a change to any other attribute of the asset feature indicates where another asset feature should be created (e.g. it is not valid to have a single asset feature with more than one value for Material. The point at which the Material changes is where a new asset feature should start from).</p>
Potential Error Cause and Fix:	<p>Common causes of this error are where a “Unique Name From Design Data” has been applied to more than one asset feature in the CAT, or where the attribute value has been changed part way along the asset feature.</p> <p>Ensure all multi-row (line and polygon) asset features have consistent attribute values across all lines in the CAT.</p>

Error Code:	11124
Check Level:	Feature
Example Error Message:	<i>Not enough points have been supplied to create a Line for E17 feature 4-C03 to 4-C04. Line assets require two or more rows in the template, Area assets require three or more rows in the template.</i>
Test Details:	<p>Checks Line and Area asset features have been recorded in the CAT with the minimum number of vertices (points) to create the asset feature geometry.</p> <p>Line asset features require at least two points and Area asset features require at least three points.</p>
Potential Error Cause and Fix:	<p>A common cause of this error is where the “Unique Name From Design Data” is different for each row for Line or Area asset features.</p> <p>The Line and Area asset features are converted into GIS features by grouping the rows in the CAT based on the “Unique Name From Design Data” and ordering the rows on “Vertex Order”. If each row in an asset feature is given a different “Unique Name From Design Data”, this error will be raised because they will be treated as individual asset features (with single points of data).</p> <p>Ensure Line features have 2 or more rows.</p> <p>Ensure Area features have 3 or more points.</p> <p>Ensure multi-row asset features are not given different “Unique Name From Design Data” values for each row.</p>