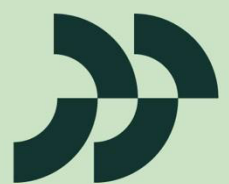


Mā tō tātou takiwā
For our District

Water Services
As Built Data Specification
Plant and Facilities



**Western
Bay of Plenty**
District Council

Water Services As Built Data Specification

Plant and Facility Assets

General

Upon completion of construction and prior to issue of practical completion, copies of as built plans/drawings showing details as constructed and certified as correct by the Contractor, shall be submitted to the Council. The plans will show all the required details.

- All alterations, upgrades and extensions to Council utilities require a sign off from a Registered Surveyor or a Chartered Professional Engineer.
- Drawings, Data and other documents will be supplied directly to the Project Engineer.

Drawings presented shall be shown as “As Built” in the amendments part of the drawing title block and signed off as ‘approved for issue’ by a person having responsibility for the quality assurance aspect of the as built information.

General information to be shown on as built plans includes:

- a) All assets including a reference identifier
- b) Name of company and person who prepared the as built plans
- c) Drawing Title with project name
- d) Unique drawing number
- e) Council contract number (Council projects)
- f) Plan revision
- g) Date when signed
- h) Construction/installation date
- i) Datum reference
- j) Origin benchmark reference, reduced level and coordinates
- k) Scale bar
- l) North arrow
- m) Legend
- n) New assets (and tie-in to existing assets)
- o) Existing assets, notated with Council’s asset reference/identifier
- p) Abandoned or removed assets

Construction drawings are not acceptable as As built plans.

Drawing Standards

Drawings shall be A3 size as a minimum, and must be scalable using the following scales:

Plan and long section	Horizontal Vertical	1:1000, 1:500, 1:250 1:100, 1:50
Cross Sections	Horizontal Vertical	1:100 1:50

In all cases the plan size must be appropriate for the level of detail shown.

Units of Measurement

Only metric units are to be used in as built data. Principally these are:

- millimetres (mm)
- metres (m)
- litres/sec (L/s)
- cubic metres /day (m³/day)

Datums and Projections

All levels and geographic coordinates shall be provided as defined below else as in the latest Land Information New Zealand Utility Location Standard. Visit the website linz.govt.nz for a copy of this standard.

Horizontal

All horizontal positions shall be surveyed in terms of NZTM2000.

Vertical

All vertical positions shall be surveyed in terms of NZVD2016.

All points shall be defined in both horizontal (X, Y) and vertical position (Z).

Accuracy

The horizontal accuracy of a position shall be +/- 0.10 m (100mm).

The vertical accuracy of a level shall be +/- 0.01 m (10mm).

Asset Value

The Council is legally required to maintain an asset valuation register for all infrastructure assets. The asset value is calculated as:

$$\text{AssetValue} = \text{AssetDirectCost} + \left(\sum \text{IndirectCosts} \times \frac{\text{AssetDirectCost}}{\sum \text{AssetDirectCosts}} \right)$$

Whereby:

- a) Asset Direct Costs include materials and installation/construction cost
- b) Indirect costs include items such as professional fees for design and construction supervision, resource consents, insurance, traffic control etc.
- c) All values shall be exclusive of GST

Data Submission

As-built plan and supporting asset information and records shall be provided as follows:

Project Phase	Data or Document	Milestone
Commissioning and Interim Handover	Drawings	Preliminary as-builts in AutoCAD and PDF markup
	Piping and instrumentation diagram (P&ID) drawings	AutoCAD and PDF markup
	O&M manual	Updated draft (for commissioning)
	Standard operating procedure	Updated draft with residual risk
Handover / vestment to council	Drawings / As-builts	Final drawings, survey drawings, point data
	Asset schedules	Completed schedule for new and demolished/removed assets
	Data attributes (Utilities As Built Data Specification – Plant and Facility Assets)	Fully completed with required attribute information and values
	Operations and maintenance (O&M) manual	Final
	Standard operating procedure (SOP)	Final

Note this list only applies to related asset information, it is not an exhaustive list of all information to be provided as part of the project.

Contractors may be required to collaborate with Council GIS Analysts and Development/Project Engineer for the purpose of clarifying the supplied as built data.

Water Services As Built Data Specification – Plant and Facility Assets

See separate spreadsheet template

The version of the spreadsheet template used should match the version of this document