

<b>Hamilton City Development Manual</b>	
<b>Volume 3 : Standard Technical Specifications</b>	<b>Part 6 — Water Supply</b>
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## SECTION J : WORKS COMPLETION AND CLEARANCE

### 1.0 AS-BUILT PLANS

Upon completion of construction work, copies of "As-Built" plans and data recording information about the completed works, as listed in section 5.0 shall be provided to Council. Separate plans are required for wastewater, stormwater and water supply. Responsibility for providing the plans and associated data shall lie with:

- The Developer, in the case of land development (urban and industrial sub-division)
- The Contractor, in the case of works constructed for the Council under contract to the Council

Plans presented in fulfilment of this requirement 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.

As-built plans and associated data shall be sent to:

- In the case of subdivisions -

Subdivisions Officer  
 Planning Guidance Unit  
 Private Bag 3010  
 Hamilton

e-mail electronic files to:- [asbuilts@hcc.govt.nz](mailto:asbuilts@hcc.govt.nz)

include in the subject heading:- HCC Subdivision Consent Number  
 subdivision name and stage number

- In the case of Council contracts, send to the Engineer for forwarding to the appropriate Council Asset Manager.

For as built requirements in participating districts refer to Part 6 Volume 5.

### 2.0 DATA PRESENTATION FORMATS

For larger developments the as-built data is required in 3 formats (Refer Threshold Matrix in Clause 6.0 of this Part):

- Two copies of hard copy plans using line formats as indicated in Volume 1, Part 2, Clause 2.4, drawing sheet size A1 and plan scale 1:500 preferred.
- Electronic Microsoft Excel spreadsheets listing various attributes of the assets constructed - refer blank template files accessed from the Table of Contents page of this Part.
- Where as built plans are prepared using computer aided design software, DXF format export files of the hard copy plans are required. The specification for the format is laid out in Volume 4 : Appendix 7.

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Hard copy plans are used in updating the Council's records and for archiving to microfilm. The DXF format files facilitate data upload to the GIS.

The spreadsheet lists of asset data facilitate data upload to the asset information database. As well as recording dimension and materials information this database is used to manage asset condition information.

### 3.0 ASSET VALUES

This requirement has been suspended pending review. Refer to Volume 4, Part 9, Appendix 8.

### 4.0 DATUMS AND 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 (m<sup>3</sup>/day). All levels are to be in terms of Moturiki Datum and to 2 decimal places.

Geographic coordinates shall be:

New Zealand Geodetic Datum 2000 (NZGD2000)  
Projection: Mount Eden Circuit 2000

or

New Zealand Geodetic Datum 1949  
Projection: Mount Eden Circuit 1949

Coordinates should be presented in standard 6 digit format (east coordinate followed by north coordinate) to 2 decimal places. e.g. 305718.97, 643728.35

### 5.0 ASSET COMPONENTS TYPES AND AS-BUILT DATA REQUIREMENTS

As-built data shall be accompanied by the following list of project specific data:

- Works construction contractor
- Project name or subdivision name (including subdivision stage number)
- Council contract number (Council projects)
- Council project ledger code (Council projects)
- Name of person responsible for preparing the as-built data
- Date of preparing the as-built data

The following list of asset specific data shall be supplied and shown on the drawings.

**Note:** occasionally privately owned assets need to be shown on as-built plans; such assets shall be clearly labelled 'Private ...whatever'.

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Asset Component Type	Asset Attribute Required	Shown on plans	Comment
Water Pipelines	Plan ID	Yes	Plan number used to identify as-built plan
	Pipe ID	Yes	Use a pipe numbering system to link individual pipes and related information such as length, diameter, material, coordinates, etc. Pipe ends occur at pipe intersections and when pipe diameter changes.
	Pipe Diameter	Yes	Nominal bore in millimetres
	Pipe Length	Yes	Show pipeline location on the plan. Show dimensions to adjacent boundaries.
	Laying Depth	Yes	Average depth below ground level to top of pipe
	Pipe Material	Yes	Material and strength classification
	Joint Type		RRJ, gibault, welded etc.
	Service Status	Yes	Abandoned and decommissioned pipelines are required to be identified on as-built records. Show "A" for abandoned pipes otherwise leave blank.
	Asset Value		Refer Refer Clause 3.0 of this section — pipe, pipe bends, and tees and associated fittings; show valves and hydrants separately
	Comments		Any pertinent comments (particularly water table depth and soil conditions)
Water Service Pipelines	Plan ID	Yes	Plan number used to identify as-built plan
	Pipe ID	Yes	Use a pipe numbering system to identify individual pipes if Property ID or Street numbering is not adequate.
	Property ID	Yes	Either property number or legal description
	Street Name	Yes	If street name is not applicable use a property deposited plan (DP) number
	Street Type	Yes	Qualifier to street name e.g. Crescent, Road, Lane, etc.
	Service Pipe Diameter		Nominal bore in millimetres
	Service Pipe Length	Yes	Show pipeline location on the plan
	Service Pipe Material		Material and strength classification
	Eastern coordinate		Coordinate of customer end of service pipeline i.e. at the service valve or toby.
	Northern coordinate		Coordinate of customer end of service pipeline i.e. at the service valve or toby.
	Toby Lid Level		From middle of Toby Lid
	Distance from left (LB) or right (RB) boundary	Yes	Distance to customer connection point relative to left-hand or right-hand boundary facing the property from the street
	Meter Installed	Yes	Yes / no response (if yes complete a HCC ' Water Meter' form for each installation)
	Asset Value		Refer Clause 3.0 of this section — include all components from tapping band to toby
	Comments		Any pertinent comments
Water Valves	Plan ID	Yes	Plan number used to identify as-built plan
	Pipe ID	Yes	Use a pipe numbering system to identify individual pipes if Property ID or Street numbering is not adequate.
	Property ID	Yes	Either property number or legal description
	Street Name	Yes	If street name is not applicable use a property deposited plan (DP) number
	Street Type	Yes	Qualifier to street name e.g. Crescent, Road, Lane, etc.
	Valve Size		Nominal bore in millimetres
	Valve Manufacturer		
	Location	Yes	Roadway, berm
	Eastern coordinate		Coordinate of valve

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Asset Component Type	Asset Attribute Required	Shown on plans	Comment
	Northern coordinate		Coordinate of valve
	Valve Level		From middle of Hydrant Lid
	Asset Value		Refer Clause 3.0 of this section — include all fittings such as gibaults, flanged spigots, surface box, marker post, etc.
	Comments		Any pertinent comments such as 'attached to anchor block'
Hydrants	Plan ID	Yes	Plan number used to identify as-built plan
	Pipe ID	Yes	Use a pipe numbering system to identify individual pipes if Property ID or Street numbering is not adequate.
	Property ID	Yes	Either property number or legal description
	Street Name	Yes	If street name is not applicable use a property deposited plan (DP) number
	Street Type	Yes	Qualifier to street name e.g. Crescent, Road, Lane, etc.
	Hydrant Size		Nominal bore in millimetres
	Hydrant Manufacturer		
	Location	Yes	Roadway, berm
	Eastern coordinate		Coordinate of hydrant
	Northern coordinate		Coordinate of hydrant
	Hydrant Level		From middle of Hydrant Lid
	Asset Value		Refer Clause 3.0 of this section — include all fittings such as gibaults, flanged spigots, surface box, marker post, etc.
	Comments		Any pertinent comments

## 6.0 THRESHOLD MATRIX FOR AS-BUILT DATA

For small developments the provision of separate as-built plans for each service, separate data sheets and dxf data is not justified. Therefore the following matrix has been developed to guide when each type of data presentation is required. If the data presented is not clear, Council may request additional information.

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	<b>Small development (2-5 lots)</b>	<b>Medium development (5-10 lots)</b>	<b>Large development (10+ lots)</b>	<b>Contract</b>
Separate plans for each service	No	Not required if adequate clarity is possible on same plan	Yes	As per large development or contract documents
dxf data	Please supply if available	Yes	Yes	As above
Separate data spreadsheets	No, include information on plans, no coordinates required.	WW or SW if >2 manholes or 10 lots Water if more than 5 hydrants or valves	Yes	As above
GST invoice on vesting	Yes	Yes	Yes	As above
Plan size	A3	A3 and A1	A3 and A1	As above

As-built drawings must be scalable. Refer to Volume 1, Part 2, Clause 2.2.2.1.