

Policy 11: Land Development Guidelines

Section 10

10.0 'As Constructed' Requirements

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10.1 Introduction

The purpose of this Guideline is to define Council requirements for 'as constructed' information for the acceptance of municipal works.

The 'as constructed' information will be used by Council to assure that the completed works satisfy the following:

- i) Provide an accurate record of the 'as constructed' completed works for location, level and attribute information in accordance with GCCC requirements and specifications;
- ii) Ensure that the finished product is in accordance with the approved Engineering Drawings and Council standards and specifications;
- iii) Ensure an inventory of contributed assets is handed over to Council for asset recognition purposes.

10.2 General Requirements

All reticulated and drainage systems must indicate the existing services to which the subdivision is connected.

The 'As Constructed Plans' must not differ from the approved subdivision staging plans. The stage boundary must include all auxiliary works built as part of the stage or operationally required for the stage.

Within Group Title developments or private property, Council requires data for any changes in services traversing the property and the section of new services connecting into the existing services that are maintained by Council.

Council requires that Consultants certify the 'as constructed' information is accurate and a true and correct record of the constructed works. In keeping with the above aim, the Consultant shall complete the 'Consulting Engineer's Certificate and Surveyor's Certification' form (refer **Appendix C**).

10.3 'As Constructed' Requirements

'As constructed' information provided to Council shall meet the following minimum criteria:

- be endorsed by a Licensed Surveyor with an appropriate QA Standard;
- all 'as constructed' information shall be submitted and approved by Council prior to any formal acceptance of the Works;
- the submission of 'as constructed' information must comply with Council's specifications for presentation, format and data;
- approved street names and lot numbers shall be shown on all 'as constructed' plans;
- all significant variations from approved Engineering Drawings (including those outside Council approved tolerances) shall be approved by Council prior to or during construction and such changes included within the 'as constructed' information;
- any amendments required by Council to the submitted 'as constructed' information shall be made and resubmitted for approval by Council prior to formal acceptance of the Works;
- where uncompleted conditions are bonded for survey plan approval purposes, a Service Location Plan must be provided. Once the uncompleted conditions are satisfied, a full as constructed plan is required.

10.3.1 Format

As constructed plans must be provided in electronic format. Council has adopted the Asset Design As Constructed (ADAC) as constructed specification that prescribes XML file format. Council will accept CAD files in DWG or DXF format that conform to the ADAC data specification or ADAC compliant XML files.

10.3.2 Drawing Presentation Requirements

The presentation requirements for CAD files will be consistent with the ADAC Typical Plan Requirements specification.

Existing infrastructure to be shown and differentiated from new services.

The extents of any existing infrastructure that has been removed or abandoned must be clearly shown.

10.3.3 Coordinate Datum

All coordinates must be based on **Geocentric Datum of Australia 1994 (GDA 94)** projected to the **Map Grid of Australia 1994 (MGA 94) Zone 56**. All level data must be reduced to the Australian Height Datum (AHD) fourth order, Class D.

10.3.4 Survey Control Network

- Permanent Survey Marks (PSM) must be placed within the subdivision to provide good coverage over the extent of the survey. All permanent survey marks must be submitted with MGA94 horizontal coordinates of at least fourth order, Class D accuracy (as defined by the ICSM and Practices for Control Surveys) and fourth Order Class D heights on AHD. **Table 10.1** provides a guide for subdivisions. All permanent survey marks must be connected to the cadastral boundaries.
- Subdivisions of less than 10 lots must include at least two Permanent Survey Marks.
- Subdivisions with greater than 10 lots must include at least three Permanent Survey Marks.
- Subdivisions with more than one kilometre of measured survey boundary must include at least three Permanent Survey Marks.

10.3.5 Topographic Detail

Finished surface levels must be surveyed with sufficient measurements to ensure an accurate representation of the new topography and significant topographical features. The information will consist of a 20m spot height grid of the subject site and include details of break lines and changes in grade. In rural subdivisions, finished surface level information is required only in areas where earthworks have been undertaken.

Finished surface levels must, as a minimum, be collected at:

- all cadastral corners;
- footpaths, pram ramps and driveway outlines;
- 10m X 10m grid intervals over all playing (sports) surfaces;
- invert of kerb or edge of bitumen, and crown of the road;
- top and bottom banks including along open drains;
- top and bottom of retaining walls;
- along overland flow paths in roadways, pathways and parks;
- detention basin crest levels and spillway levels;
- ground levels.

10.3.6 As Constructed Data Requirements

Council has adopted the Asset Design As Constructed (ADAC) specification for as constructed data. The ADAC specification is developed and maintained by a consortium of Local Government agencies under the auspices of the Institute of Public Works Engineering Australia. The specification defines:

- the information required for each asset type;
- the terminology to describe this information; and
- allowable values.

With the exception of requirements for a Service Location Plan (described below), all as constructed data must conform to the ADAC data specification. Details of the ADAC specification are described on the ADAC web site and are reproduced on Council's web site. The current version of ADAC applicable at the time of development approval shall apply for lodgement of as constructed plans unless otherwise conditioned in the development permit.

10.4 Service Location Plan Requirements

At the request of the Applicant, Council may at its sole discretion agree to approve plans of survey prior to completion of development obligations. As a condition of this approval, the Applicant must provide a Service Location Plan (SLP) describing the location of services and show all easements contained within the subdivision.

For services located within the road reserve, only basic information is required for a Service Location Plan unless otherwise specified. When services are within easements in private property or open space, Council requires as constructed data compliant with the ADAC as constructed data specification.

10.4.1 Sewerage Reticulation System

Sewerage reticulation within easements in private property or open space;

- Sewer line and access structures
- Sewerage house connections

and additional information describing;

- Offsets from allotment boundaries to sewer house connection points
- Offsets from allotment boundaries to pipes and access structures

Sewerage reticulation within the road reserve;

- Built Sewer reticulation with access structures and connections to existing services
- All Invert Levels and pipe grades must be shown

10.4.2 Potable / Recycled Water Reticulation System

Potable/ Recycled Water reticulation within easements in private property or open space;

- Compliant as constructed data describing all potable/ recycled water infrastructure
- Cross connections

Potable/ Recycled Water reticulation within the road reserve;

- Potable/ Recycled Water reticulation system schematic showing connections to existing services
- Cross connections

10.4.3 Stormwater Drainage System

Stormwater drainage within easements in private property or open space, provide complete as constructed data for;

- Stormwater drainage line and access structures
- Field Inlet or Property Pit (Inter-Allotment Drainage Pit)
- Gully Pits
- WSUD structures

and additional information describing;

- Offsets from allotment boundaries for all inter-allotment drainage pits, manholes and end of pipes

Stormwater drainage within the road reserve, provide;

- Built Stormwater Drainage system showing pipeline, access structures and Water Sensitive Urban Design (WSUD) structures
- All Invert Levels and pipe grades must be shown

10.4.4 Cadastre

As constructed data compliant with the ADAC as constructed data specification for cadastre.

10.4.5 Service Location Plans Certification

Council requires that Consultants certify the Service Location Plan information is accurate and a true and correct record of the constructed works, to date. In keeping with the above aim, the Consultant shall complete the 'Consulting Engineer's Certificate and Surveyor's Certification' form (refer **Appendix C**).

Service Location Plan information provided to Council must be endorsed by a Licensed Surveyor with an appropriate QA Standard.