



Digital Data standards for the Cadastral Database

Introduction

The Digital Cadastral Data Base (DCDB) of the ACT is maintained by the ACT Planning and Land Authority on behalf of the ACT Commissioner for Surveys. The Authority uses its Land Information System to manage the DCDB and other spatial data sets. Under provisions of the *Districts Act*, the Commissioner maintains the quality, accuracy and currency of the ACT Digital Cadastre.

In response to his legislative obligations, the Commissioner has developed these digital data standards.

These standards have been developed in consultation with other ACT Government agencies to ensure that common requirements across agencies are expressed in common terms.

Compliance with this standard will ensure that data submitted by registered surveyors can be added into the DCDB with minimum delay, whilst allowing data management staff to maintain the high quality of the digital cadastre.

Objective

To define a set of minimum standards for the production of CAD drawings produced for inclusion in the cadastral layers of the ACT Land Information System.

Scope

These standards apply to all digital cadastral data submitted for inclusion in cadastral layers of the ACT Land Information System. Data is submitted from a variety of sources, including:

- Private sector surveyors (cadastral and engineering);
- Land developers (whether government or private); and
- Government agencies.

Please note: while data may originate from different sources, it will not be accepted for inclusion into the DCDB unless it has been created by a surveyor registered under the Surveyors Act 2001.

Procedures

The intention of this procedure is to ensure that all CAD drawings submitted for inclusion into the ACT Cadastre are structured in a consistent manner. This will facilitate input of the data into the ACT Land Information System and ensure continuing high accuracy standards for the ACT Cadastre.

Drawing Audit

All submitted drawings will be checked for compliance against this standard. Any drawings found not to comply will be returned to the provider with a request that they be re-drafted to meet the standard. Drawings not meeting this standard will not be included in the Cadastre.



Copyright

The intellectual property rights to the information contained in the drawings remains with the data provider. Provision of these data for inclusion in the DCDB implies agreement to the Authority's right to use and distribute the cadastre (including such data) as required to meet the Authority's land administration obligations.

Contact Details:

For any additional information regarding this standard please contact:

The ACTMAP Data Co-ordinator

Ph: 6207 1607

Email: rene.dekiefte@act.gov.au

General drawing requirements

Cad Drawings

All drawings to be supplied in AutoCAD DWG or DXF file format.

Map Projection

All drawings will be based on the ACT Grid system with the AutoCAD units set as follows:

- Angle type Degrees/minutes/seconds
- Base angle North 0°00'00"
- Angle direction Clockwise

Data framework

Where the new subdivision abuts existing blocks, the surveyor will obtain this adjoining base information from the Authority as a reference frame for the new subdivision. Data will generally be supplied free of charge for these purposes.

Contact:

ACTMAP Data Co-ordinator: 02 6207 1607

ACTLIC Data Supply Officer: 02 6207 1889

Data to be supplied

The data contained in the drawing will be limited where possible to include the following entities only: Sections, Section numbers, Blocks, Block numbers, Easements, Road centre lines, Kerbs and Islands, Driveways, Carparks, Unit boundaries, Unit numbers and Building footprints.

The insertion point for all AutoCAD BLOCK entities will be 0,0

Quality of data to be supplied

The drawing must not contain self-intersecting polygons, line overshoots or line undershoots.

The data may be supplied as closed polygons, polylines or lines. The drawing must not contain any entity duplications.



Data Standards

Please note: Only a registered surveyor can provide data for inclusion into the DCDB.

Subdivision set-out should comply with the following standards.

Road centre lines

- Bearings of road centre lines shall be defined to the nearest 10 minutes wherever possible;
- Radii of arcs shall be defined to the nearest 1m wherever possible;
- Where an intersecting road joins close to a tangent point on a through road (within 1m) then move the intersecting road to join at the tangent point on the through road; and
- Where an intersecting road joins a curved through road at close (within 2 minutes of arc) to a radial bearing from the through road, then make the intersecting road join radially.

Kerbs

- Kerbs are to be parallel or concentric to the road centreline where possible; and
- Distances between centre line and kerb (as well as verge widths) are to be expressed to the nearest 0.25m where possible.

Blocks

- Bearing of back boundaries shall be expressed to the nearest second of arc;
- Bearing of side boundaries shall be expressed to the nearest second of arc;
- Boundaries shall be located to eliminate parcel corners at a spacing of less than 0.3m wherever possible;
- All blocks and sections should be given alpha identifiers as block numbers will not be issued until the ACT Land Information Centre receives the Authorised Plan; and
- The data will be supplied with lengths expressed to a precision of a minimum of 5 decimals of a metre.

Paper Space

No paper space items to be included in drawing.

Model Space

Model geometry is to be created at full size (scale 1 : 1) in Metres.

Layout views

No layout views required.



Layers

- The layers are to be named as follows with all entities supplied on a “By Layer” basis
- SECTION*
- SECTION_TXT
- BLOCK*
- BLOCK_TXT*
- EASEMENT
- EASEMENT_TXT
- CENTRELINE*
- KERB_NEW*
- DRIVEWAY
- CARPARK
- UNIT
- UNIT_TXT
- FOOTPRINT

*Please note: Layer names marked with * are common with the 'Drafting Standard for Traffic Control Devices (TCD) Design Drawings prepared by Roads ACT.*

Colours, text fonts and line styles

These may be at the Contractor’s discretion provided that AutoCAD standard colours, text fonts and line styles only will be used.

Drawing File names

Choice of file naming is at the Contractor’s discretion. However, files should be named in a way that describes the content.

Template drawing

The Authority has available a base drawing with the Units and Layer names already set up. This drawing can be made available on request.

Virus Scanning

All media supplied to the Authority must be certified to be free of computer viruses.

AutoCAD Restrictions

- The drawing must not contain any XREF;
- Only standard AutoCAD fonts and line styles are to be used;
- Drawings are not to have any dependence on linked files; and
- Where the Authority’s cadastre is used as the base for new work, this base should not be included in any of the layers nominated above.

Drawing Completion

Use the PURGE command to remove all unused definitions including BLOCKS AND FONTS before submitting the file.