



CITY OF WANNEROO

INFRASTRUCTURE CAD STANDARDS

INFORMATION SHEET

March, 2016

PURPOSE: To establish uniform CAD standards and practices for internal and external (contract) drawings for the City of Wanneroo Assets Directorate.

NOTE: Any variation to the Assets Drawing Standards listed below must be referred to the "Asset Project Officer", or the "Manager Strategic Asset Management" for consideration.

STANDARDS:

1. **Viruses:** Electronic copies of drawings must be virus free before delivery to the City of Wanneroo.
2. **Format:** Drawings to be presented in minimum AutoCAD format version 2010 or later.
3. **Drawing Units:** set to metres.
4. **Current Drawing Layer:** set to zero.
5. **Drawing Title Block:** Bottom left hand corner to be set at coordinate zero, zero (paper space).
6. **XREF:** External references (XREFS) to be bound (BIND) into drawing(s).
7. **Sheet Sizes and Templates;** All internal and contract drawings to be produced using the following criteria:

- 3.1 Drawings must be presented on standard A1 size sheets utilising standard Infrastructure Drawing Template.
- 3.2 Drawings in A3 & A4 shall only be used after referral to the Design Project Manager.
- 3.3 The format of standard Infrastructure title blocks shall not be altered.

8. **Pen Weights:** shall controlled by the standard Infrastructure plot colour table file (COW A1 FULL PEN.ctb) as follows

COLOUR	PLOT	WEIGHT
1 red	7 black	0.50mm
2 yellow	7 black	0.35mm
3 green	7 black	1.00mm
4 cyan	7 black	0.25mm
5 blue	7 black	0.70mm
6 magenta	7 black	0.18mm
7 white	7 black	0.25mm
8 grey	8 grey	0.25mm

Coloured pen weights to be ByLayer.

No other plot colour table shall be introduced without approval with the Design Project Manager prior to drafting. Should approval be granted the appropriate plot colour table (.ctb) file shall be supplied with the drawing/s.

- 9. **Hatching:** styles used are to be those supplied by the AutoCAD standard package.
- 10. **Layers:** used as those embedded within the standard Infrastructure Template are to be used. If layers are added, then they should follow the same naming and property formats as those within the template.
- 11. **Text:** used in the body of the drawing shall conform to the table below. The width factor shall be 0.7.

<u>TEXT USAGE</u>	<u>FONT</u>	<u>FULL SCALE HEIGHT</u>	<u>COLOUR</u>
Standard Text	romans.shx	0.25mm	White or Cyan

Standard Notes	romans.shx	0.25mm	White
Legend Text	romans.shx	0.25mm	White
Emphasised Text	romans.shx	0.35mm	Yellow
View/Note Titles	romans.shx	0.50mm	Red

12. **Purge:** Drawings shall have all unused layers, linetypes, blocks, text styles etc PURGED from the drawing(s) any extraneous information erased.

13. **“As Constructed”:** drawings to be clearly labelled “AS CONSTRUCTED” within the title blocks.

14. **Company Logos:** to be placed above the City’s logo.

15. **Numbering Drawings:** Drawing numbers shall be used as issued in automatic numerical sequence by the Infrastructure Drawing Register. All drawings relating to a single project number (PR-xxxx) shall have the same drawing number.

Drawing sheet numbers shall be created in numerical sequence throughout the series of drawings, without any gaps. However, for large projects sheet numbers may be grouped into categories for ease of numbering and indexing. In this case (only) drawing sheet 0 (zero) may be used for a cover sheet e.g.:

Sheet Nos	Categories
0	Cover Sheet / Drawing Index / Locality Plan
1 to 5...	Plan/Profiles
10 to 18...	Cross Sections
20 to 26...	Detail Plans
30 to 35...	Drainage Plans
40 to 43...	Lines & Signs Plans
50 to 54...	Street Lighting Plans
etc...	

NOTE: The above is an example only – drawings may be grouped and categories ordered, as required to suit the project.

16. **Numbering Drawing Revisions:** All revisions made to drawings prior to being signed as Approved by the Director Assets shall be designated with alphabetical

characters. The Director shall sign as Approved revision 0 (zero). All revisions made to drawings after being signed as Approved by the Director Assets shall be designated with numerical characters; e.g.:

Drawing Revisions Prior to Approval: 3421-1-A; 3421-1-B; 3421-1-C etc...

Drawing at Approval: 3421-1-0

Drawing Revisions After Approval: 3421-1-1; 3421-1-2; 3421-1-3 etc...

17. **Drawing Titles:** The titles of drawings need to be compatible with the City's Infrastructure Drawing Register and its search facilities. In general the first line of the Standard Asset Drawing Template title block shall give the location of the project, followed by the section of road, intersection or location within a park. The third line should indicate the type of work to be undertaken followed by the locality name on the fourth line.

In the box below the main title, details of the type of drawing shall be given and below "Sheet x of x" shall indicate the sequence of a particular drawing in a series of similar drawing types.

Note: If a line does not apply to the project then just leave it blank

Title Block Examples:

Roads

Line 1 Road Name

Line 2 Section of Road or Intersection

Line 3 Type of Work Being Undertaken

Line 4 Locality

Line 5 Type of Drawing

e.g., Concept Plan, Construction Plan, Plan & Profile, Cross Sections,
Lighting Plan, Pavement Markings & Minor Signs Plan, Clearing Plan

Line 6 Sheet X of X of Drawing Type

Drainage

Line 1 Catchment or Road Name

Line 2 Road Names Involved or Section of Road

Line 3 Type of Work Being Undertaken

Line 4 Locality

Line 5 Type of Drawing

e.g. Catchment Plan, Drainage Plan, Longitudinal Pipe Section/s

Line 6 Sheet X of X of Drawing Type

Parks & Reserves

Line 1 Park/Reserve Name

Line 2 Location (e.g. playground, oval)

Line 3 Type of Work Being Undertaken

Line 4 Locality

Line 5 Type of Drawing

e.g. Concept Plan, Planting Plan, Playground Plan, Earthworks Plan

Line 6 Sheet X of X of Drawing Type