



CADD Protocols for Contractual Deliverables

Guidelines

October 2011

PURPOSE:

Provides consultants and agencies with a clear understanding of CADD standards and BMW's record-keeping requirements.



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Enquiries

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The [Suggestions](#) page on the iPortal (for suggestions, general comments, content link issues); or

The [Amendments Request](#) page on the iPortal for content specific amendments.

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Revision

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1	Layering names, requirements and drawing file names expanded, Tdstamp, cover sheet added, text usage clarified	October 1997
2	Layering requirements clarified, PDF requirements added Department name changed	July 2001
3	General update	Dec 2008

Introduction

This document outlines the Department of Housing and Works' requirements for 'Tender' and 'As Constructed' drawings and sets out conditions for the delivery of contract documentation

This Manual aims to:

- * Provide Consultants with a clear understanding of the reason for the Standards;
- * To align the Department of Housing and Works CADD Standards for Deliverables as best as possible with existing industry standards with consideration to the Department of Housing and Works' requirements as outlined in the State Records Act 2000; and
- * Ensure all associated parties are clear about the legislation that governs the need to retain CADD records

Techniques and methods used by consultants throughout the design documentation phase can vary from the requirements outlined in this Manual, however drawings related to Tender, Practical Completion as well as changes made during the defects period must conform to the following prescribed protocols

The Manual reflects current industry standards with consideration to the Department of Housing and Works' legislative obligations as detailed in the State Records Act 2000

For further information please contact the the Department of Housing and Works CADD Manager on 9440 2241 Electronic documents and associated templates can be located at www.dhw.wa.gov.au/CADD

Why Do CADD Protocols Exist?

The Department of Housing and Works CADD Protocols forms a part of the Department of Housing and Works' Contractual Deliverables for a number of reasons This section serves to inform all relevant parties as to the rationale for its inclusion in Contract documents, as well as why they are regarded as a deliverable of high importance

Legislative reasons

The State Records Act 2000, in conjunction with the Department of Housing and Works' Record Keeping Policy specifies CADD drawings as State Archives. Section 3 of the State Records Act 2000 defines a State Archive as "a State Record that is to be retained permanently"

The State Records Commission Standards outline minimum requirements for Government record keeping. Standard 6 – 'Outsourcing' asserts "State Organisations ensure that contractors comply with the record keeping controls determined by the record keeping plan of the organization" (SRC Standard 6 Outsourcing, Principle 3, State Records Commission of Western Australia, February 2002, p 7). Furthermore, the Standard stipulates that Government organisations must ensure that State Records are returned upon contract completion. Further information on the State Records Act 2000 and the State Records Commission Standards can be located at <http://www.sro.wa.gov.au/src/>

The CADD Standards serve to meet the Department of Housing and Works' legislative obligation to retain State Archive Records as per the above described requirements.

Retrieval

State Government drawings are utilized for a variety of purposes. This varies from upkeep and maintenance reasons, through to replication for similar projects. For example, many schools are built based on existing designs owned by the Government. Copies of existing drawings are provided to the consultant as a template for designing the new project. This Manual ensures that all drawings are supplied in a simple consistent format that is easy to retrieve for the life of the building.

For this and many more reasons, the Department of Housing and Works is required to ensure that all drawings are stored in their recoverable and editable native format.

Schedule of Documentation to be Supplied

The Consultant shall supply the following documents to the Principal's Representative:

Contract Documentation	<p>1 copy of computer CADD documentation of "Tender Documents" in PDF format " and</p> <p>1 copy of computer CADD documentation of "Tender Documents" in DWG format</p>
Practical Completion	<p>1 copy of computer CADD documentation of "As Constructed" drawings in DWG format</p> <p>1 copy of computer CADD documentation of "As Constructed" Asset Management drawings in DWG format</p>

CADD drawings must be provided in the above electronic formats on CD-Rom or DVD

NOTE: At Practical Completion, ALL tender drawings are to be updated to reflect "AS CONSTRUCTED" and are to be clearly labelled as such



Provision of Data to the Department of Housing and Works

Currently the Department of Housing and Works operates AutoCAD 2007 Commissioned Consultants are to ensure that their CADD system can produce electronic copies of the drawings in a format compatible to a minimum of AutoCAD 2004

Where another CADD system is used, it shall be the responsibility of the Consultant, to supply drawings to the Department of Housing and Works to a minimum format of AutoCAD 2004 .DWG only.

No raster images shall be included in the data delivered to the Department of Housing and Works

Consultants shall complete the deliverables checklist on OCM, to signify that they have complied with the Department of Housing and Works requirements

No manual updating of CADD drawings is allowed

The supply of "As Constructed" CADD drawings (including those from sub-consultants) to the Department of Housing and Works remains the responsibility of the lead consultant.

Consultant Templates

The following file types shall be used by the consultants All files are available on line at www.dhw.wa.gov.au

File	Description
A1base DWG	<p>A1 size (841 x 594) base drawing with title block with standard text</p> <p>All drawings shall be produced using only A1 size sheets utilising the standard A1 size the Department of Housing and Works base drawing sheet incorporating the border, logo and title block layout</p>
A1base DXF	<p>A1 base drawing template for use with other CADD systems</p> <p>The A1base DXF should be converted into a drawing relevant to your CADD system</p> <p>Make sure that the limits of the drawing sheet are set to the extents of the A1base drawing as inserted at the plot scale Also ensure that 0,0 is set to the bottom left hand corner of the drawing sheet</p>
Cover DWG	<p>A1 size cover drawing with title block with standard text</p> <p>This is to be used by all consultants and sub-consultants in their documentation</p> <p>Logos are to be inserted in the area provided at the base of the cover sheet title block</p> <p>A NOTE: NO logos are to appear above the State Government Crest.</p>

Cover DXF	<p>Cover drawing template for use with other CADD systems</p> <p>The Cover DXF should be converted into a drawing relevant to your CADD system</p> <p>Make sure that the limits of the drawing sheet are set to the extents of the Cover drawing as inserted at the plot scale Also ensure that 0,0 is set to the bottom left hand corner of the drawing sheet</p>
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For use of different sheet sizes please contact Gary Marcon, CADD Manager for approval

Existing Drawings

The Department of Housing and Works will supply copies of CADD drawings (when available & required) where the project involves work to an existing facility or is a copy of an existing facility Drawings will be supplied in an AutoCAD "DWG" format only

NOTE: Not all drawings supplied, will fully comply with the current standards It shall be the responsibility of the Consultant to convert these drawings, as necessary, for its own use, so as to comply with current protocols



PDF Standards for Tender

General

This format file is applicable to tender documents only. Files are to be delivered to the the Department of Housing and Works Tender's Office. The ability to produce PDF files (portable document format) is available via the "Plot" function in all current versions of AutoCAD.

PDF File Naming

The following file naming format ensures consistency and ease of recognition of drawings by contractors and sub contractors. Files must be renamed according to the following standard before saving.

Examples of Architectural drawing file name format are - A1siteplan, A2adminfloorplan, A3adminelevations, A4adminsections, A5admindetails etc

Examples of sub-consultant drawings file name format are - S1adminconplan, S2adminconcdets, M1siteplan, M2adminblock, E1siteplan, E2adminblockpower, etc

NOTE: NO reserved characters are to be used in the file name (eg: &, /, \) as this can cause file viewing problems.

PDF Delivery Requirements

Limits are to be set and the bottom left corner of the sheet is to be at 0,0

Final tender drawings are to be 'zoomed' to limits, before passing to the Department of Housing and Works Tenders Office. This ensures that all files will appear the same size when viewed.

Only one drawing is to be contained per PDF file (The number of PDF files supplied must be equal to the number of hard copy drawings in the tender set.)

All entities outside the drawing boundaries are to be erased.

The Grid toggle is to be turned off.

Non standard fonts are not to be used.

All PDFs to appear in black and white only.

All files created must be viewed by the consultant to ensure that they open correctly, prior to delivery to the Department of Housing and Works.

Delivery of PDF Standards to the Department of Housing and Works

Supply ALL files to the Department of Housing and Works in a compressed ZIP file format using pkzip/WinZip

GEM requires files be no larger than 40mb in size

Zip files can be delivered to the Department of Housing and Works on CD-Rom/DVD or via email to the Tenders Office

(tendersoffice@dhw.wa.gov.au)

Zip file names shall be in the format of project title + discipline For example:

Bakers Hill PS architectural drawings zip;

Bakers Hill PS mechanical drawings zip, etc

If more than one zip file is required for a discipline then they shall be numbered as such For example:

Bakers Hill PS architectural drawings1 zip

Bakers Hill PS architectural drawings2 zip,

If the project has only a limited number of drawings and they are of small size, then they can be compressed into a single zip file For example:

Bakers Hill PS drawings zip

The delivery of PDF files, is in addition to the requirement for all consultants to supply AutoCAD DWG's (tender DWG's and 'As Constructed' DWG's) as stated in the RFP shell and Specifications detailed under "Provision of Data to the Department of Housing and Works"

All AutoCAD PDF files supplied to the Department of Housing and Works will be identical in content to the corresponding hard copy drawing supplied



Drafting Standards

Drawing File Naming

All drawing files must consist of 8 characters as detailed below

Characters 1 to 3

Identifies the job description in a minimum of 3 characters

For example - JPC = Joondalup Police Complex

Character 4

Identifies the Practice or Discipline and must use the following characters as applicable

A	=	Architectural
C	=	Civil
E	=	Electrical
M	=	Mechanical
S	=	Structural
I	=	Irrigation
D	=	Interior Fit out
F	=	Fire and/or Security
L	=	Landscaping
N	=	Marine
P	=	Plumbing (Hydraulic)
T	=	Telecommunications
U	=	Survey
X	=	Xref Drawing (refer NOTE)

NOTE: It is acceptable to use unmodified drawings for external referencing However where the drawing is modified in any way prior to its use as an external reference the drawing must be named with the X prefix to distinguish it from the original drawing

Characters 5 & 6

Identify the drawing number

For example - 01 through to 99

Character 7

Identifies the drawing description and must use the following characters as applicable

A	=	Site Plan and or Details
P	=	Plan
C	=	Ceiling Plans
R	=	Roof Plans
E	=	Elevations
S	=	Sections
D	=	Details
L	=	Room Layouts
W	=	Window Schedules
O	=	Door Schedules
F	=	Furniture Details
M	=	Miscellaneous



Character 8

Identifies the drawing scale via the following characters

0	=	1:1
1	=	1:5
2	=	1:10
3	=	1:20
4	=	1:50
5	=	1:100
6	=	1:200
7	=	1:500
8	=	1:1000
9	=	1:2000

Refer to Section 3 6 for information on determining plot scale

Typical Example

JPCA01P5 or JPCA01A7

The Principal Consultant is to ensure that all sub consultants have the same 3 characters at the start of each file name

A file naming convention that allows for more than 100 drawing numbers or that allows the drawings number to reflect individual buildings is available Approval must be sought from the Department of Housing and Works CADD Manager before use

Australian Standards

Drawings shall meet the requirements of the Australian Standard drafting codes detailed below

AS 1100 101-1992	Technical Drawing	General Principles
AS 1100 201-1992	Technical Drawing	Mechanical Drawing
AS 1100 301-1985	Technical Drawing	Architectural Drawing
AS 1100 401-1984	Technical Drawing	Engineering Survey, Engineer Survey/Design Drawings
AS/NZS 1100 501-2002	Technical Drawing	Structural Engineering Drawings
AS 3883-1991	Computer Graphics	Computer Aided Design (CAD) – Guide for Structuring of Computer Graphic Information

Graphic Symbols

Refer to the relevant Australian Standards Association publications

Linework

Final drawing line work must be delivered as follows

Pen Size No (Mm)	Colour	Colour Or Pen No	Low Light Colour
018	RED	1	9
025	YELLOW	2	10
035	GREEN	3	11
050	CYAN	4	12
025	BLUE	5	13
070	MAGENTA	6	14
100	WHITE	7	15
013	GREY	8	

NOTE: On some graphic screens - low light colours may differ from those listed above

The Department of Housing and Works uses the Plotter to set the plotted line thickness not the CADD File

Colour by layer or line type is equally acceptable but discipline must be maintained to ensure that only one method is used in the production of drawings

A single colour can be used for all entities on layer 440 (the base layer for all sub-disciplines)

A minimum plotting thickness of 0.13mm is to be used on all drawings.

Lettering

Due to copyright laws, all lettering for standard drafting documentation shall be AutoCAD standard font file ISOCP2 vertical, plain, uncondensed, to minimum text height of 2mm with a 0.25mm thickness

All text shall be UPPERCASE only

Scale

ALL drawings shall be constructed at FULL SIZE Under no circumstances is a drawing to be scaled unless it is an INSERTED BLOCK

The drawing measurement is to be set to millimetres for building works and geographical drawings (survey drawings) The scale of the final drawing, (which determines the initial insertion of the BASE drawing) is to reflect the smallest scale drawing on the sheet For example, if the drawing is a 1:20 section with 1:5 details, the 1:20 section takes precedence for the plot scale

Title Block

Refer to Appendix A for example of the Title Block

Detailed titles for each drawing shall be determined in discussion with the Project Manager and shall be consistently applied throughout, regardless of discipline

Cover Sheet Title Block

Refer to Appendix B for example of Cover Sheet Title Block

Titles for cover sheets shall be consistent with drawing title block and shall be consistently applied throughout, regardless of discipline

External Referencing

The methodology of producing drawings using the Xref or XCLIP command of AutoCAD is acceptable

The "PATH" for the Xref file shall be set to default to the current working directory

The XREF drawing file(s) may be bound into the main drawing file, providing the total file size does not exceed 15Mb and the Xref drawing file(s) do NOT contain any frozen or turned off layers

The Consultant will supply all Xref drawing file(s) and will use the appropriate drawing naming conventions

All Xref's shall contain only the layers required. All layers not required, shall be deleted.

The CADD Drawing Information sheet (available online at [www.dhw.wa.gov.au /CADD](http://www.dhw.wa.gov.au/CADD)) must be completed

All external reference files used in drawings shall be inserted on Layer 440 (base layer).

Model Space / Paper Space

All drawings, unless otherwise discussed with the Department of Housing and Works shall be delivered as a 2D drawing file using only Model Space

There will be no tiled view ports used in model space

Consultants may use Paper Space throughout the creation of the drawings, however Tender and As Constructed drawings must conform to the above protocols when finalised for delivery to the Department of Housing and Works

The Department of Housing and Works acknowledges various concerns with regards to the use of Model Space / Paper Space however the following constraints impact on our ability to be responsive on this issue;

- All drawings are to be archived in a standard simple format for retrieval, as well as ongoing maintenance purposes in perpetuity
- The increasing trend toward facilities management systems requires the use of model space
- The protocols need to be generic enough for all types of CADD systems so as to ensure equity to all applicable consultancy firms regardless of the CADD application they are running

Consultants benefit from this format in those instances when drawings need to be reissued or modified

Further information on this matter can be found at www.dhw.wa.gov.au/CADD

Purging

All unused layers, line types, text styles etc are to be purged from the drawing

Limits

The limits are to be set to the correct sheet size, with the bottom left hand corner set to 0,0

Layers

All layers are to be turned on where practical Each discipline is to delete all layers not applicable to them

In AutoCAD, in the layering dialogue box, no layers are to be turned off for plotting

Entities Outside Drawing Borders

All entities outside the drawing borders are to be erased.



Orientation

Oriente all plans and parts of plans so that NORTH is towards the top of the sheet where possible

Symbolic Representation of Materials

Refer to AS 1100 - Part 301 – 1992

Amendments

Amendments to drawings shall be marked and NOTED in the amendment and title blocks

Letters shall be used for pre-tender amendments and numerals shall be used for post tender amendments

This section applies only to practical completion documentation for completely new facilities It does not apply to additions or alterations to existing buildings

The Department of Housing and Works have recognised the need for Asset Management Plans to be a requirement of new construction following the increasing trend in Government, toward Facilities Management applications This section details what consultants must supply at Practical Completion of 'new facilities'

The consultant shall supply the following on CD-Rom or DVD upon practical completion:

- n An electronic copy of the site and floor plan/s in AutoCAD DWG format
- n A 'black and white' copy of each site and floor plan in Adobe PDF format

Layering, colours etc are to comply with the Department of Housing and Works CADD Documentation Procedures Manual

NOTE: The West Australian Country Health Service has detailed requirements for the Asset Management plans for its facilities This protocol is available at www.dhw.wa.gov.au/CADD Alternatively please contact your the Department of Housing and Works Project Manager

Site Plans

All site plans are to:

- n Be drawn in model space
- n Have a Scale 1:1 (mm)
- n Be Geospatially located and oriented
- n Have Units set to millimetres (drawing must not be 'unitless')
- n Have each floor plan/s inserted in its correct spatial location and relationship to other blocks
- n Have no layers 'frozen' or turned 'off'
- n For printing purposes layout space can be used with an appropriate viewport scale (1:200, 1:500, 1:1000)

The following layers shall remain. All other layers are to be removed from the site plan.

- n The Title block and drawing sheet
- n The North point

Asset Management Drawing Standards

Contour lines

- n The New Building outline
- n The Existing building outline
- n All roads or car parks
- n All car bays
- n All paths, ramps etc
- n All physical features (fences, trees, bollards, goal posts, retaining walls, stairs, kerbs, external lights etc)
- n Any visible components of in ground services (manholes, pits etc)

Site service mains from building boundary to entry point into new buildings are to be shown on the site plan

For printing purposes layout space can be used with an appropriate viewport scale (1:200, 1:500, 1:1000)

All other information is to be erased and the layers deleted and the drawing purged.



Floor Plans

All floor plans are to:

- n Have 1 floor plan per drawing file
- n Be drawn in model space (Draw complete blocks (no breaks))
- n Be drawn at 1:1mm and then Geospatially located and oriented
- n Have Units set to millimetres (drawing must not be 'unitless')
- n Have no layers 'frozen' or turned 'off'

For printing purposes layout space can be used with an appropriate viewport scale (1:50, 1:100)

The layers to remain are those containing:

- n The Title block and drawing sheet
- n Walls
- n Windows
- n Doors
- n Room names
- n Floor finishes
- n Any fixed furniture
- n Columns (concrete or steel columns)
- n Any plumbing fixture (basins, toilets and urinals)

All other information is to be erased, layers deleted and the drawing purged.

CADD Layering Protocol

This standard is designed to ensure the Department of Housing and Works and its future Consultants can easily retrieve relevant information. The usage of this layering system serves to ensure that other Consultants using original documents are easily able to identify entities from the existing drawings.

The CAMS/Department of Housing and Works layering system was developed at a time when project documentation was done "in house". It is based on the 3 digit numbering system used by the "NATSPEC" specification package (NATSPEC Classification Manual ISBN 0 7316 6401 9) and was adopted and developed at a time when NATSPEC was being introduced as a nation wide specification system.

The protocol uses numbers based on hundreds, tens and units. The numbers shown in the table below are generally considered to be the PRIMARY numbers. For example:

n 250 STRUCTURAL STEEL

Consultant(s) can place information associated with that primary number on another layer by creating a SECONDARY definition. For example:

n 250 STEEL COLUMNS, 250 STEEL BEAMS, 250 STEEL PURLINS

n 465 DOOR, 465 DOOR No

Survey drawings are also to use the protocol to present their information. For example:

n 072 KERB, 072 KERB TXT, 072 KERB RL

n 140 TREE, 140 TREE TXT, 140 TREE RL

n 231 BUILDING, 231 BUILDING TXT, 231 BUILDING RL

Drawings produced by all Consultants must conform to the Department of Housing and Works layering system as follows:

n All DRAWINGS shall be drawn utilising the layering protocol described on the following pages

n All LAYERS must have layer number as well as layer definition
for example 050-NEW LEVELS

n Layer definition can be abbreviated as long as the naming remains clear
for example 250-S-BEAMS, 250-S-COLS

Colour by layer and line type is acceptable. Questions regarding this layering system should be referred to the CADD Manager.

CADD Layering Protocol

Architectural / Structural Layers

Layer No	Layer Definition	Layer No	Layer Definition
000	Hatch Boundary	410	Hardware
0	All General Line work (elevations, sections & details only)	420	Paving
021	A1 Sheet	439	Access Floors
030	All Dimensions	440	Base layer for ALL sub consultants for Xref or inserted Arch plans
032	Room Names	444	Partitions
033	Room Numbers	450	Roofing (gutters, flashings, insulation, cappings, rwp's, skylights etc)
034	Floor Finishes (carpet, etc)	459	Suspended Ceilings (bulkheads)
035	Detail Reference Nos	460	Curtain Walls
036	Section Reference Nos	461	Windows (window shutters)
037	General Arch Text	462	Existing Windows
038	General Struct Text	463	Existing Windows Removed
039	Amendments, As Const	465	Doors
040	Grids	466	Existing Doors
045	Existing Levels	467	Existing Doors removed
046	Existing Contours	510	Cladding
050	New Levels (RL, FFL)	552	Tiling
051	New Contours	553	Resilient Finishes
060	Symbols	560	Plastering
062	Hatch Patterns	570	Painting
063	Graphs	580	Graphics, Artwork
072	Site Features (kerbs, fences, manholes, road marking, key plan etc)	600	Fixed Furniture
140	Vegetation (trees gardens)	601	Existing FF
190	Demolition	602	Existing FF removed
210	Groundworks (embankments, excavation etc)	610	Loose Furn
215	Piling	611	Furn (NIC)
220	Concrete	615	Furniture Text
228	Terrazzo	651	Existing Plumb Fixt
230	Masonry Walls	652	Existing Plumb Fixt Removed
231	Existing Walls (building outline on site plan)	722	Stormwater
232	Existing Walls Removed	730	Sanitary Services (in bldg)
235	Stonework	737	Plumbing Fixtures (taps, sinks, basins, toilets etc)
250	Structural Steel	740	Water Services
260	Metalwork (studwork etc)	783	Fire Protection-Sprinklers
270	Woodwork (timber beams etc)	884	Fans (ceiling, exhaust etc)
280	Glazing	910	Exterior Spaces (ovals, tennis courts etc)
		922	Roadworks
		930	Semi Enclosed Spaces

Hydraulics

Layer No	Layer Definition	Layer No	Layer Definition
702	Existing Services Text	728	Special Services
709	General Hydr Text	730	Sanitary Services (in bldg)
710	Hydraulic Accessories	734	Existing Services
720	Drainage	737	Plumbing Fixtures (taps, sinks, basins, toilets etc)
721	External Services - Sewer	739	Vents
722	Stormwater	740	Water Services (tanks)
724	Mechanical Drains	741	External Services – Mains (fire, water)
725	Toxic Wastes	742	Cold Water Supply
727	Sewer Treatment	743	Hot Water Supply

Mechanical

Layer No	Layer Definition	Layer No	Layer Definition
745	Chilled Water (& chillers)	870	Heating Water (boilers, hot water units etc)
747	Irrigation	879	Heating Appliances
749	Condensed Water System	880	Air Handling Ductwork
750	Gas, Steam, Air Pipework	884	Fans (ceiling, exhaust)
755	Medical Gas	887	Exhaust Systems
760	Waste Disposal	888	Dust Extraction System
850	Mechanical Services (Notes, machinery, etc)	889	Room a/c (fan coil units etc)
860	Refrigeration Services		

Electrical

Layer No	Layer Definition	Layer No	Layer Definition
780	Fire Protection - General Zones	818	Wiring layout (power, lighting)
787	Fire and Smoke Detection	819	Wiring Protect & Support (Conduits, Pits, Cable Trays on Plans)
790	Communications - General Zones	821	Electrical Accessories
791	Telecomm and Computers	823	Switch and Control Gear
793	Intercoms	825	Electrical Appliances
794	Radio Systems	828	Luminaires
795	Public Address	838	Earthing Installations
797	Audio Visual	839	Lightning Protection
798	Recording	845	Energy Conservation System
799	Warning and Evacuation	846	Security System
800	Electrical - General NOTES	884	Fans (ceiling, exhaust)
810	Switchboard Zones	892	Lifts (passenger)
811	Switchboard Symbols	893	Lifts (goods)

Interior Fitout

The following section details requirements with regards to interior fit out documents. Extra layers and reduced line weights are used because of the need to show existing building structure and services including ceiling layout for location of partitioning.

NOTE: Generally the Light Colours are to be plotted using similar pen weights as the normal colour with a 30% density setting on inkjet or similar plotters. For pen plotters this can be accommodated using a coloured pen so that a lighter density is achieved when the drawing is printed.

Line types generally are continuous with grids indicated in a dot dash line type and items to be removed in a dashed line type.

Layer No	Layer Definition	Colour	Layer No	Layer Definition	Colour
030	Dimensions	2 (yellow)	459	Ceiling grid	11(lt grn)
032	Room Names	3 (green)			
037	General Text	2 (yellow)	600	Fixed Furniture	2 (yellow)
040	Building Grid	9 (lt ylw)	601	Existing Fix Furn	1 (red)
231	Existing Walls	4 (cyan)	602	Exist Furn Removed	2 (yellow)
	Existing fixtures, doors, windows	12 (lt cyn)	610	Loose Furniture	2 (yellow)
444	New Partitions	3 (green)			
445	Existing Partitions	1 (red)			
446	Exist Partns removed	2 (yellow)			
447	Screens	3 (green)			
448	Existing screens	1 (red)			
449	Exist screens removed	2 (yellow)			



The CADD Drawing Checklist, CADD Project Data Information and CADD Drawing Information sheets are available for download on line at www.dhwwa.gov.au/CADD Consultants shall supply completed copies to the Department of Housing and Works with CADD disks It is the Consultant's responsibility to check regularly for updates to any CADD related data

The above information is required for ease of retrieval

CADD Drawing Checklist

Complete and sign the checklist to signify compliance with the Department of Housing and Works requirements

All drawings must be supplied on CD-Rom/DVD and in the prescribed format

All disks shall be scanned for virus infections prior to issue to the Department of Housing and Works.

Project and Drawing Information Sheets

Complete and return the Project Data Information Sheet to the Department of Housing and Works

NOTE: A separate CADD Drawing Information Sheet must be supplied for each disk complete with all information



Appendix A: Title Block



example of design information table to go on drawing S1
STRUCTURAL drawings only

DESIGN INFORMATION	
DEAD AND LIVE LOADS AS1110.1-189	
LIVE LOAD -BLOCK A MEZZANINE	5 kPa
LIVE LOAD - BLOCK B CONCRETE ROOF (NON TRAFFICABLE)	1.5 hPa
WIND LOADS	
WIND REGION	A
WIND FROM NORTHEAST AND SOUTHEAST	TERRAIN CATEGORY Z SHIELDING MULTIPLIER 1 TOPOGRAPHIC MULTIPLIER 1 IMPORTANCE MULTIPLIER 1
WIND FROM NORTH WEST AND SOUTH WEST	TERRAIN CATEGORY 3 SHIELDING MULTIPLIER 0.9 mPDGRAPHIC MULTIPLIER 1 IMPORTANCE MULTIPLIER 1
EARTHQUAKE LOADS AS 1110.4-1'193-AMDT.1	
STRUCTURE TYPE	
ACCELERATION COEFFICIENT	
SITE FACTOR	
SOIL BEARING PRESSURES	
ALL FOOTINGS (SAFE BEARING PRESSURE)	HPa
SITE CLASSIFICATION	

DOCUMENTATION BY:
NAME OF CONSULTANT PRACTICE
ADDRESS OF CONSULTANT PRACTICE

Government of **Western Australia**
Department of Housing and Works
Works and Building Services

SITE LOCATION

TITLE 1
TITLE 2
TITLE 3

DRAWN	INITS	DESIGNED	NAME	REDUCTION
CHECKED	INITS	PRINCIPAL		D 25
APPROVED	INITS	SIGNATURE		
SCALE		DATE		DRAWING No. A.01 A
OHW PROJ.No.		DHW FILE No.		
PROJ NO		FILE NO		

THIS A CADD DRAWING DO
NOT AMEND MANUALLY

A1BASE.OWG 10.00*51 04107101

Appendix B: Cover Sheet Title Block



Government of **Western Australia**
Department of **Housing and Works**
Works and Building Services

PROJECT NAME
TITLE
TITLE

YEAR

DISCIPLINE

SET No.

TENDER NUMBER

VOL. OF

TENDERS CLOSE 2:30 PM TUESDAY DATE MONTH YEAR

DOCUMENTATION BY:
NAME OF CONSULTANT PRACTICE
ADDRESS OF CONSULTANT PRACTICE

