AUSTIN BERGSTROM INTERNATIONAL AIRPORT (AUS) CADD STANDARDS MANUAL

(Revision #20)

This AUS CADD Standards Manual is a detailed document that contains the CADD information required to produce CADD drawings for use in terminal and airport projects. The initial source for the information contained within this document is the national cadd standards - Version 6 (NCS) can be found on the internet at the following location: https://www.nationalcadstandard.org/ncs6/, A/E/C cadd standards release 6.0, and FAA Advisory Circular 150/5300-18B. In addition to the NCS, A/E/C cadd standards release 6.0, and FAA Advisory Circular 150/5300-18B a supplemental documents containing additional cadd standards information has been developed to set guidelines that will provide additional support for AutoCAD. These standards are consider a living document and as such are subject to revisions and updates on a continuous basis. This document addresses all disciplines in AutoCAD 2018 with respect to workspace, working units, file names, level names, symbology, cell and/or block libraries, general drafting standards as well as electronic file delivery requirements. The AUS cadd standards manual can be found on the AUS airport construction and design resources website at: http://www.austintexas.gov/page/construction-and-design-resources-airport

Consultant firms are required to contact the AUS Planning and Development project manager (PM) or project coordinator (PC) to have the latest AUS cadd architectural or civil consultant folder with all cadd related content emailed to the contact person at a consultant firm.

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1. INTRODUCTION

INTRODUCTION

This CADD Standards Manual is a comprehensive document designed to be used along with the National Cad Standards Version 6 (NCS) A/E/C cadd standards release 6.0, and FAA Advisory Circular 150/5300-18B for all work on the terminal and airport projects. Use of these two documents is required for creating AutoCAD drawing files in a standard, concise and consistent format. Within this document are cadd standards for all disciplines including, file naming, level and/or layer naming, sheet numbering, general drafting standards and electronic file delivery requirements.

PURPOSE

This manual establishes specific requirements for the development, maintenance and delivery of all cadd files related to the construction projects for AUS International Airport. The purpose of the standards contained within this manual is to:

- Establish a Computer Aided Drafting and Design (CADD) standard, which will ensure consistent electronic data interchange and paper deliverables between AUS and its consultants, contractors, and all government agencies, including Federal Aviation Administration (FAA). The standards will ensure that electronic data received from these sources can be easily integrate into the Department of Aviation's Geographic Information System (GIS) and the FAA's Airport-GIS program.

- Consultant is responsible for the quality control of their submissions. AUS will visually and electronically check all submissions to verify compliance. AUS has the right to reject and require correction of any required deliverables that do not meet requirements.

- Provide a consistent and compatible electronic record of each project that can be recreated later or referenced on future projects.

- Ensure consistent file structure and format of all cadd files can be achieve with as little effort as possible.

- Aid the designers with the development of their designs utilizing other consultants' work as efficiently as possible.

- Ensure a consistent method of printing so that there is uniformity in the look of the sheets when printed.

SOURCE

The basis for this document is the year 2004 edition of the AUS cadd Standards that was developed by the New Airport Project Team (NAPT). Additional source information was obtained from the NCS in the year of 2010 and Federal Aviation Agency (FAA).

COMPLIANCE

Compliance with these standards is mandatory and subject to the individual consultant contracts. The consultant/contractor shall use these standards for all design work during the course of the project, file transfers between AUS & other consultants as well as for all files transmitted as record drawings upon completion of the project. Any modifications, deletions or variances to these standards will not be allow without the permission of the AUS International Airport CADD department.

2. PROJECT ORGANIZATION

INTRODUCTION

This chapter defines the three types of drawing files, MASTER MAP FILES, MODEL FILES & SHEETFILES. It also defines the project directory structure, the file naming conventions for Model and Sheet Files as well as the numbering of the final plotted sheets.

TYPES OF DRAWING FILES

There are three types of cadd files defined in this manual: Master Map Files (base files), Model files (reference files), and Sheet files (Master Files). The definitions of each are detailed below.

 MASTER MAP FILES (BASE FILES) Master map files contain information regarding the current existing conditions, however users should field verify any and all information contained within these files prior to any design work. The AUS cadd department will provide all master map files. Any discrepancies should be brought to the attention of the AUS cadd department. Note that all users are urge to inquire about current survey and construction activities prior to commencing design of any project within the ABIA airport.

 MODEL FILES- AUS Architectural CADD STANDARDS drawing templates need to be at the scale of 1/16" = 1' – 0" for all floor plans. Terminal CADD floor plan drawings are set at 1/16" = 1' – 0" scale. All other buildings must use a architectural unit for the drawing template.

 MODEL FILES- AUS Civil CADD STANDARDS drawing templates must be scaled at 1:1.

 SHEET FILES (MASTER FILES) A Sheet File represents the final plotted cadd drawing file. Sheet files contain the notes, annotations, dimensions, call-outs, titles and other text required to convey the design to the contractor. Model files, including the border files, and Master files are referenced to the sheet files in order to create the final plotted sheets.

3. DELIVERABLE REQUIREMENTS

INTRODUCTION

This chapter identifies the requirements for all submittals including permitted submittals to AUS. It includes details regarding electronic file submittals, what files are required for submittals, as well as the methods and media to be use in the submittal process. The intent of this electronic file submittal is to provide AUS cadd files utilized in the development of a record document package. A complete archive of the entire project will be made for record and retention requirements as well as future use and to aid AUS in updating the base map information required for inclusion into the AUS GIS system.

TIMING AND FREQUENCY

The timing and frequency of submittals is dependent on contractual obligations and the direction of AUS International Airport. Consultants are advise to allow ample time in order to assemble all required documentation in the required format for each submittal.

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 Electronic files (CADD drawings) – Submittals- 30% -100%, Permit, As Built and Record Set.

 CADD drawing submittals (30%-Record Set) – Will go through a QA/QC review process until each submittal meets AUS CADD (architectural or Civil) Standards requirements. Record set CADD drawings should not have any errors due to previous reviews during the project construction.

 Record Set deliverables – CADD drawings, Revit drawings, TIFF's, PDF's, Project Manual and Specifications.

 Permitted projects – Per City of Austin Development Services Department requirement all projects that require permitting will only be accepted by **Vector PDF** using the online COA DSD EPlan Review. **Paper bond sets will no longer be accepted** by COA DSD and the consultant of each project is responsible to get the project permitted through online EPlan Review.

Required: a permit paper bond set to be printed out (11x17 paper size) and given to a project manager.

 Sheet Files (Master Files) – All sheet files used to produce the project cadd drawing set.

 Model Files (Reference Files) – All design files that represent the design are require to produce the project drawing set.

 External Reference Files – Required for all projects.

3. DELIVERABLE REQUIREMENTS- (cont'd)

CONTENTS (cont'd)

 Master Map Files (Base Files) – All design files representing any changes to the AUS cadd master maps as a result of the project in question will be contained in separate cadd files along with the referenced base files and will comply with the cadd master maps standards.

 Specification Files – All project specifications.

 CAD, TIFF and PDF Files – Full size (22x34-paper size and CAD paper space) for all projects and combine/bind project set of all TIFF's and PDF's. TIFF's are only required for the record set.

 Paper Bond Set –One-half size (11x17-paper size) for all projects.

PROTECTION OF SENSITIVE SECURITY INFORMATION (SSI)

Any documentation submitted to the Aviation Department is deemed SSI must comply with the provisions described in 49 CFR 15 and 49 CFR 1520.13. Transmittals must also indicate the documentation/electronic files classified as SSI.

FORMAT

All files included in any submittal including the permitted submittal to be saved to AutoCad 2013 format in order to allow them to open. Drawings created with Revit®.rvt or other cadd software need to be converted to the latest version of Autodesk® AutoCAD® .dwg format. Attention should be taking to ensure drawing information, entities or data is not lost during the conversion or translation process.

MEDIA

All electronic submittals & file transfers with a transmittal letter are receive by a downloadable link supplied by a consultant and the link could be a FTP site, Drop Box or Own Cloud. A paper bond set with a paper transmittal letter is required and must consist of one ANSI B (11x17) paper size.

4. CADD PROCEDURES REQUIREMENTS

(IF AT ANY TIME QUESTIONS ARE NEEDED TO BE ANSWERED WHILE WORKING WITH THE AUS CAD STANDARDS. MEETINGS CAN BE SCHEDULED and HELD THROUGH MICROSOFT TEAMS OR GOTO MEETINGS TO DISCUSS ANY OF CADD PROCEDURES REQUIREMENTS.)

 MODEL FILES- Architecture drawing templates need to be at the scale of 1/16" = 1' – 0" for all floor plans. Terminal CADD floor plan drawings are set at 1/16" = 1' – 0" scale. All other buildings must use a architectural unit for the drawing template.

 MODEL FILES- Civil drawing templates must be scaled at 1:1.

 External Reference Files – Required for all projects.

A. All drawings need to be separate Xref's. Architectural- for example: Floor Plan, MEP's, Grid Lines and etc. Civil- for example: Site Plan, Utilities and etc.
B. All Xref's need to be inserted into 1 template in the model tab along with the title block shown in the paper space. For Architectural- new buildings need to have floor plan(s) in a separate Xref. Terminal improvements- must have the floor plan CAD drawing(s) inserted into the new template from AUS CAD Standards Architectural Terminal Floor Plan folder. Civil- must insert the airport base map CAD drawing from AUS CAD Standards Civil consultant folder into the new template.

 All projects must have a external reference file CAD drawing of the utility site plan, architectural floor plan, mechanical, electrical, plumbing, structural and a civil site plan separate from the other utility, architectural floor plan, mechanical, electrical, plumbing, structural and civil site plan CAD drawings. **(All drawings must fit into the airport base map CAD drawing included in the Civil AUS CAD Standards consultant folder and the Architectural AUS CAD Standards consultant folder for terminal related projects).**

1. Architectural floor plan- doors, walls, columns and windows.
2. Mechanical, Electrical and Plumbing- only scope of work shown.
3. Structural- only scope of work shown
4. Utilities (Civil)- lines and text only
5. Site Plan (Civil)- area layout of project

 Drawings must fit in the location of the work area be it terminal, airport base map or any other structure.

 All Revit drawings must be converted to 2D cadd drawings and must be re-sized after the conversion to fit correctly in the project layout plan (architectural) or site plan (civil) including all other areas in the scope of the project.

 All drawings must be a separate drawing. No multiple drawings (2 or more cadd drawings saved in one drawing).

 On any plan CADD drawing be it floor plan, lighting plan or etc. do include the any general information, notes, legends and abbreviations associated to that one plan on one drawing and number the sheet using the SHEET DESIGNATOR as number 1. All other general information, notes, legends and abbreviations need to be on a separate CAD drawing.

 CADD drawing details, schedules and diagrams still need to be on a separate drawing from the plan cadd drawing.

4. CADD PROCEDURES REQUIREMENTS- (cont'd)

- Remove everything from model tab not shown in the paper space cadd viewport window located in the title block.

- Remove all unnecessary features, block references and text outside the border area and no consultant plot stamp on cadd drawings and bond set print outs.

- No multiple tabs on one drawing. For example: Tabs: Phase 1, Phase 2 and so on. all shown under one drawing. Each individual drawing need to have the standard three tabs: Model and Layout 1 (Can be labeled with a name) and layout 2 (empty or removed from drawing).

- Make sure all reference files are attached and etransmitted into the drawing.

- Include a folder labeled external reference file (Xref) for all external reference file (Xref) drawings and graphic logos to be stored in with every project.

- The title block and cover sheet cannot be converted to blocks and you must use the provided AUS title block and cover sheet. If title block is a block, the block must be exploded and block lines removed.

- The DETAIL TITLES always need to have either a scale size or the abbreviation: NTS shown. Not the words: AS NOTED or left blank with no scale size or text.

- Filters in the Layer Properties Manager box located in the ribbon area of AutoCad need to have all filters removed except for ALL, ALL NON-XREF LAYERS, ALL USED LAYERS and XREF.

- Purge/Audit and -Purge all drawings.

- Delete all Xref's not associated with a cadd drawing.

- Remove consultant plot stamp, grid use over AUS title block and cover sheet, copy write text from cadd drawings.

- Make sure the SCALE text in the title block matches the scale size in the viewport cadd window.

- The title block key map location must have a hatch pattern at the correct terminal sector and for civil projects, a hatch pattern must be place inside a box inside the airport grid box where the project is located. All other new buildings, garages, renovations of existing buildings with a different key map other than the terminal or airport map of a project must use a hatch pattern in the sector where work is performed.

- Move the word: SITE and the associated leader arrow to point to the project location in the SITE LOCATION MAP located in the cover sheet CAD drawing.

- All paper space tab cadd drawings being a title block, cover sheet and index sheet drawings must be full size 22x34 paper size for all projects.

- Use command: **LAYDEL** to remove all layer names in each drawing that are not used in the final design of the project cadd drawings.

- To generate TIFF and PDF's set lineweight at 0 in the CTB file and don't click the box next to the words PLOT OBJECT LINEWEIGHT.

4. <u>CADD PROCEDURES REQUIREMENTS-</u> (cont'd)

- Consultant is required to incorporate contractor's red lines in As-Built into the Record Drawing set.

- *"**RECORD DRAWING**"* is to be notated in the revision block or stamp prominently on each page.

- Electronic PDF and TIFF including the paper bond set must match the cadd drawing files. The consultant color base table line weight must be 0 to be able to read PDF and TIFF along with paper bond set. Use DWG to PDF print command to make PDF copy.

- LAYER PROPERTIES MANAGER box - Filters needed are: Used Layers and Xref's. All other filters need to be deleted.

- All CAD drawings should only have associated single Xref's (External Reference Files) with no nested Xref's inside of the single Xref.

- External Reference File (Xref) CAD drawings cannot have a letter(s) made up and labeled as such. Xref CAD drawings naming MUST follow National CAD Standards and AUS CAD Standards requirements. See page 23 of this cadd standards PDF for correct naming of a external reference file (Xref).

- The DRAWING DESCRIPTION wording in the DRAWING DESCRIPTION box located in the title block MUST match the number "1" DETAIL TITLE wording only.
(If 2 or more CAD viewport windows are shown in the title block viewport window almost all the wording from each DETAIL TITLE must be shown in the DRAWING DESCRIPTION box). For example: 1) LEVEL 1 FLOOR PLAN, 2) DETAIL, 3) SCHEDULE, so the wording would be in the DRAWING DESCRIPTION box: LEVEL 1 FLOOR PLAN, DETAIL and SCHEDULE.

- The SHEET NUMBERING of all CAD drawings must MATCH the first/number 1 DETAIL TITLE WORDING. For example: Detail title number 1 is FLOOR PLAN-CONCOURSE LEVEL. Detail title number 2 is ENLARGED SECTION. The correct sheet number will be: A-1-01. Not A-4-01 (coming from Detail Title #2) is completely wrong. The SHEET TYPE DESIGNATOR number always comes from DETAIL TITLE number 1 and no other DETAIL TITLE listed in the CAD viewport window of the title block.

- Make sure all graphic logo's/seals are copied and paste into the title block logo/seal boxes. Don't use a Xref for logo's and seals. Can make logo's and seals a block.

<u>DEFINITIONS:</u>

- EGRESS: refers to an entire exit system from a building: stairs, corridors, and evacuation routes outside the building.

- LIFE SAFETY: Any interior building element (Interior Stairs) designed to protect and evacuate the building population in emergencies.

- DETAIL TITLE: The first/number 1 Detail Title wording shows what word(s) goes into the DRAWING DESCRIPTION box located in the title block. If space is allow for other word(s) for example: DETAILS, SECTIONS, ELEVATIONS shown in the cadd viewport window of the title block then those words can be added.

5. DRAFTING STANDARDS

INTRODUCTION

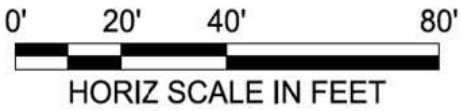
This chapter supplements the information provided by NCS in Module 04. These two documents provide the basic drafting standards to be used in the creation of cadd documents for all AUS airport projects.

ACCEPTABLE SCALES

For acceptable commonly used standardized scales, see NCS USD-04.12. Any scale other than those shown in the NCS manual is not permitted and will not be accepted by AUS airport. Note that the use of any Metric scales will not be permitted.

- **Numerical Scales:** For sheets where there is only one scale associated with a drawing, the scale will be noted in the title block as per the Architectural or Engineering scales shown in NCS USD-04.12. For sheets where there are multiple drawings shown, the term AS SHOWN will be noted in the title block and each drawing will show the scale of the individual detail. For drawings or details that are considered not to scale, they will be indicated as such either by the words NOT TO SCALE or by N.T.S.

- **Graphical Scales:** Bar scales will be used on all sheets in order to allow the reduction or enlargement of plans while maintaining the ability to scale distances off of the sheet. These bar scales will be graphical in nature as shown in NCS beginning on pg UDS-06.14, but will also show the scale in text form as indicated below under DETAIL TITLES. Also text should be added under the graphical bar scales that will indicate SCALE IN FEET. If there is a difference between the horizontal and vertical scales, both should be shown and the text HORIZONTAL SCALE IN FEET or VERTICAL SCALE IN FEET should be added. Examples are shown below:

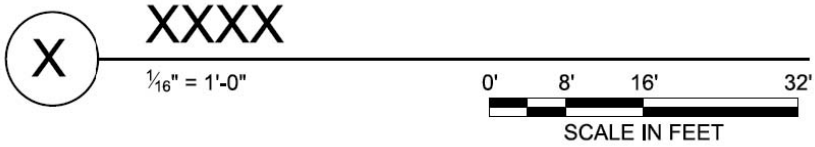


NORTH ARROWS

North arrows will be used on all sheets where required and will be shown as per NCS pg UDS-06.23. Example is shown below:

DETAIL TITLES

All details will show an individual title as per NCS page UDS-06.13. Example is shown to the right.



5. DRAFTING STANDARDS- (cont'd)

EGRESS PATH SYMBOL

6. TITLE BLOCK AND COVER SHEET

DATE

Drawing dates shall be CADD generated on all drawings. The date shall be listed in the following manner: (Day, Month, and Year) Example: 22MAR09

The months shall be abbreviated as follows:

JAN ..... January
FEB ..... February
MAR ..... March
APR..... April
MAY ..... May
JUN ..... June
JUL..... July
JUL……July
AUG.....August
SEP……September
OCT……October
NOV……November
DEC……December

CONSULTANTS ID BLOCK AND SEAL

A) Provide Company's Name and or Logo on Consultants ID Block.
B) All Bid Documents (Final Submittal) and each issuance immediately shall be sealed, signed and dated by a State of Texas Registered Professional Engineer, a State of Texas Registered Architect, or a State of Texas Registered Land Surveyor, as appropriate.

DRAWING TITLE

A) The drawing title shall include no more than four lines.
B) Title shall agree with the drawing index.
C) Drawing title shall be CADD generated.

SHEET TYPE DESIGNATOR

A) The sheet type designator shall be located in the lower right hand corner of the title block.
B) All drawing sheets in a package shall be consecutively numbered within each Drawing Type group. See page 15 for explanation of file naming & sheet type designator.

SITE KEY MAP AND TERMINAL KEY MAP

Site and Terminal key maps are included with their respective title block templates. Key Maps shall be shaded to reflect area shown on drawing.

CONSECUTIVE SHEET NUMBERING

Consecutive sheet numbering is numbering sheets from 1-XX located in the bottom right corner of the sheet number box located in the title block. For example as shown in the title block: XX-XX needs to be changed to 1- (to) the last sheet in the project.

In the Sheet Index listing this example needs to be followed for all sheets: 1. A-0-01 Cover Sheet (Drawing Description). All sheets must follow the Sheet Index numbering system, so if the Sheet Index shows for example: 1-68 sheets in a project than all sheets must be numbered accordingly to placement in the drawing set.

7. GRAPHIC ATTRIBUTES

INTRODUCTION

In general, the graphic attributes, weights, styles and colors are define by level within each individual discipline's template files for AutoCAD. In the event that attributes not assigned within these files or information is missing from these files, the user is directed to refer to NCS UDS-04.14.

Line Weights: Line weights shown below are for AutoCAD and will follow NCS UDS-04.14.

LINE WEIGHT DESCRIPTION	THICKNESS PER NCS IN MM	THICKNESS PER NCS IN INCHES	MICROSTATION LINE WEIGHT SETTING	UTILIZATION
Extra Fine	0.13	0.0051	wt = 0	Extra fine detail which cannot be accomplished using a fine line.
Fine	0.18	0.0071	wt = 1	Material indications, surface marks, hatch lines, patterns.
Thin	0.25	0.0098	wt = 2	**Text 0.100" or 3/32"** Existing Topographic Features, break lines, hidden object lines, dotted lines, dashed lines, setback line, center lines, phantom lines, grid lines, schedule grid lines.
Medium	0.35	0.0138	wt = 3	**Text 0.120" or 1/8"** General Annotations & Dimensions, object lines, property lines, door and window elevations, architectural stroke terminators, schedule grid accent lines.
Wide	0.50	0.0197	wt = 4	**Text 0.120 or 1/8"** Sub titles & Column Heading, underlining, edges of interior and exterior elevations, cut lines, property lines, drawing block borders.
Extra Wide	0.70	0.0278	wt = 5	**Text 0.240 or 1/4"** Chart Titles, underlining, match lines, building footprints, title block borders, sheet borders, schedule outlines, object lines requiring special emphasis, elevation grade lines, top of grade lines.
XX Wide	1.00	0.0394	wt = 6	**Text 0.240 or 1/4"** Sheet Titles, Detail Titles, underlining, separating portions of designs, section cutting plane lines.
XXX Wide	1.40	0.0551	wt = 7	Border sheet outlines and cover sheet line work, revision clouds.
XXXX Wide	2.00	0.0787	wt = 8	Border sheet outlines and cover sheet line work.

Note:

Thicknesses shown in inches were converted from the thickness in mm as shown in NCS UDS01.14 and rounded up to the 4th decimal place.

8. LINE STYLES

INTRODUCTION

Line styles shown below represent only the basic styles available in AutoCAD and do not reflect all line styles available. Users should employ basic drafting principles in the selection of line styles and wherever possible avoid the use of custom line styles.

AUTOCAD LINETYPES	DESCRIPTION	USAGE
CONTINUOUS	Continuous/Solid	Object lines, dimension lines, leader lines, extension lines, break lines
DOT, DOT2, DOTX2	Dotted	Connection points, other uses vary
HIDDEN2	Medium Dash	Secondary object hidden lines
HIDDENX2	Long Dash	Main object, hidden lines, existing elements
DASHDOT, DASHDOT2, DASHDOTX2	Dot Dash or Dash Dot	Match lines, other uses vary
HIDDEN	Short Dash	Detail hidden lines
PHANTOM, PHANTOM2, PHANTOMX2	Dash Dot or Phantom	Property lines, boundary limit lines, phantom lines
CENTER, CENTER2, CENTERX2	Long Dash Short Dash Long Dash	Centerlines
DASHED DASHED2	Long Dash	Varies
DIVDE DIVDED 2	Dash Dot Dot Dash	Varies
GAS_LINE GAS	Dash Gas Dash	Gas Lines
TRACKS	Tracks	Rail Lines
FENCELINE1	Fence Line	Fences

Color

All drawing files for both Microstation and AutoCAD are to be created using the color table information shown on page PG-7 within the national cadd standards. All sheet drawings are to be plotted in black and white using the color numbers and RGB values shown on page PG-3 within the national cadd standards.

9. TEXT ATTRIBUTES

INTRODUCTION

The following are guidelines for the application of text strings and text nodes on all construction documents. The text sizes and weights are based on basic manual drafting principles utilizing Leroy text sizes.

Fonts:

In order to ensure consistency between Consultants and their documents, the approved font for all construction documents will be a true type font “ARIAL”. However, for certain conditions such as presentation or conceptual graphics, other fonts may be more desirable. To ensure consistency only true type fonts will be allowed. The use of fonts in this manner will ensure consistency throughout the set of construction documents and eliminates the management of any specific resource files.

Text Size:

The text sizes and weights shown below are based on basic manual drafting principles utilizing standard Leroy text sizes for Civil drawings as well as standard Architectural text sizes. No text smaller that 0.10” or 3/32” will be utilized in the development of any construction documents. With the exception of Cover Sheets, text larger than 0.250” or 1/4” will not be used in the development of any construction documents.

TEXT SIZES FOR CIVIL DRAWINGS

For thicknesses associated with these weights, refer to LINE WEIGHTS previously described in this chapter.

TEXT SIZES FOR ARCHITECTURAL & STRUCTURAL DRAWINGS

For thicknesses associated with these weights, refer to LINE WEIGHTS previously described in this chapter.

PLOTTED SIZE IN INCHES	EQUIVALENT CADD SETTING	DESCRIPTION	WEIGHT
0.100	Plot scale X .100	Existing Topographic Features	2
0.120	Plot scale X .120	General Annotations & Dimensions	3
0.120	Plot scale X .120	Sub-titles & Column Headings	4
0.240	Plot scale X .240	Chart Titles	5
0.240	Plot scale X .240	Detail Titles	6
0.240	Plot scale X .240	Sheet Titles	6

9. TEXT ATTRIBUTES- (cont'd)

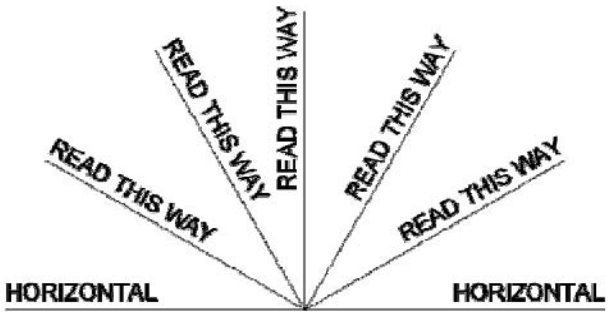
Text Justification

The typical text justification for all text strings and text nodes is Top Left. This insures that when a multiple line of text is edited, the first word holds its position and minimizes the need to relocate text after it is revised. For certain conditions such as sheet titles, detail titles, sheet numbers and column headings other justifications are warranted. The user should utilize basic drafting and cadd principles along with good judgment in the selection of alternative text justifications.

PLOTTED SIZE IN INCHES	EQUIVALENT CADD SETTING	DESCRIPTION	WEIGHT
3/32"	Plot scale X .0938	Existing Topographic Features	2
1/8"	Plot scale X .1250	General Annotations & Dimensions	3
1/8"	Plot scale X .1250	Sub-titles & Column Headings	4
1/4"	Plot scale X .2500	Chart Titles	5
1/4"	Plot scale X .2500	Detail Titles	6
1/4"	Plot scale X .2500	Sheet Titles	6

Text Orientation

All text is to be placed such that it is readable from the bottom or right hand side of the sheet as shown below. Text that is placed in the area 7.5 degrees either side of vertical may be rotated as required depending on the layout and readability of the sheet.



Line Spacing

In general, for multiple lines of text, the Line Spacing will be 50% of the text height as shown. If there is a need for a line to fall between two lines of text then the Line Spacing should be set to 100% of the text height. This allows for a clean uncongested look for full size drawings as well as on drawings that have been reduced.

Leader Lines

Leader lines shall be line strings with an arrow terminator as described below. The use of curved leader lines will not be permitted. They should be angled so they are not confused with other lines on the drawing and not allowed to cross dimension lines or other leader lines.

- Leader lines that terminate to the left should start at the center of the first line of text.
- Leader lines that terminate to the right should start at the center of the last line of text.

9. TEXT ATTRIBUTES- (cont'd)

ABBREVIATIONS

All words or terms shown on the sheets should be spelled completely and abbreviations should not to be used unless it is necessary to save space or for clarity. All abbreviations used must conform to NCS UDS-05.1 and be used as such consistently throughout the project. The use of obscure or undefined abbreviations should not be used in order to avoid confusion. If there is doubt or confusion regarding an abbreviation, spell it out. All abbreviations utilized for a specific discipline will be shown on a sheet entitled "Discipline Standard Abbreviations" where the word Discipline will be replaced with the appropriate discipline term. These sheets will be located at the beginning of the drawing package within the General subset after the cover sheet. (see NCS USD-01.6)

DIMENSION ATTRIBUTES

The following are guidelines for the application of dimensions on all construction documents.

Terminators: The approved line terminator for dimensions on all construction documents is the standard filled terminator in the dimension settings. The size of the filled terminators is a width of .5 and length of 1.5 x the text height.

Terminators for Architecture: The approved line terminator for dimensions on Architecture construction documents is the stroke terminator in the dimension settings. The size of the stroke terminators is a width of .5 and height of .75 x the text height. The weight of the stroke terminator is 3 (WT=3).

Dimensioning: Dimension text shall be placed with a justification of Center Bottom when placed on top of the center of the dimension line. When Dimension text is placed to the left of the extension line, outside of the area being dimensioned, it should have a justification of Right Bottom. When Dimension text is placed to the right of the extension line, outside of the area being dimensions, it should have a justification of Left Bottom. This will enable the revision of the text without the need to relocate it after revising. Line spacing shall be one half the text heights. For multiple lines of text, the line spacing should be increased to 100% of the text height (see Line Spacing section previously described).

- Text may be placed above and below a dimension line, but never solely below.
- User should exercise basic proper drafting techniques in the display of all dimensioning.

10. DRAWING REVISIONS

Revisions to Preliminary Design Drawings
Changes made to Preliminary Design Drawings between formal issuances shall not be clouded, but the “Revision Description" shall be designated on each sheet title block.

Revisions to Pre-Bid Document Drawings(Revisions)
1) Areas on drawings where changes have occurred are to be “clouded” and identified by their respective “Revision” number located in a triangle adjacent to the “cloud”.
2) Enter a brief “Revision” description to identify drawing change. The "No." column entry shall be the addendum number for that change.
3) Prior to the issuance of Bid Documents, all changes previously chronicled “Revision” shall be removed from all Pre-Bid Document drawings.

Revisions to Post-Bid Document Drawings (Addendums)
Drawings revised after Bid Documents are issued, shall apply the following procedures:

1) Obtain drawing originals from the AUS Project Manager and Project Coordinator.
2) Areas on drawings where changes have occurred are to be “clouded”, and identified by their respective “Addendum” number located in a triangle adjacent to the “cloud”.
3) All revised drawings, as well as Drawing Sheets listed on the Drawing Index shall be marked Addendum No. 1, 2, etc. as appropriate. Newly added sheets shall be added to the Drawings Index Sheet.
4) Enter a brief “Addendum” description to identify drawing change. The "No." column entry shall be the addendum number for that change.
5) Where portions of a drawing shall be voided, the area to be voided shall be outlined and an "X" placed across the area voided. The word "VOID" shall be placed across the center of the "X". If an entire sheet is voided, an "X" shall be placed from corner to corner of the sheet and the word "VOID" at the center of the "X". Also, the word "VOID" shall be placed across the title block sheet number, and on the appropriate sheet on the index of drawings.

Description of Changes to Drawings
The Design Consultant shall prepare and provide to the ABIA Project Manager a written summary of the changes made to the drawings, if requested by Project Manager.

Transmittal
After document changes are completed, the following items shall be deliver to AUS Project Manager or Project Coordinator:

A. Summary of Changes to Drawings description
B. Originals of Drawings being issued.
C. Revision List of Drawings being issued with Issuance Date referenced.

11. REVISION/ADDENDUM BLOCK (ISSUE DESCRIPTION box)

Introduction
An entry in the revision/addendum block shall be provided to document each revision or addendum.

Drawing Issues
The following are examples of issuance descriptions to be used: "ISSUED FOR 30% REVIEW", ISSUED FOR 100% SUBMITTAL" or “ISSUED FOR BID”.

Bid and Post-Bid Revision
With the submittal of Bid Document Drawings all previous revision descriptions shall be deleted (“wiped clean”) from the drawings. The original Bid Document Drawings shall be provided to the ABIA Project Manager.

Indications
1) Each revision shall be dated with day, month and year.
2) Initials of Project Architect/Engineer shall be entered in the Revision Block column, noted by “by”.

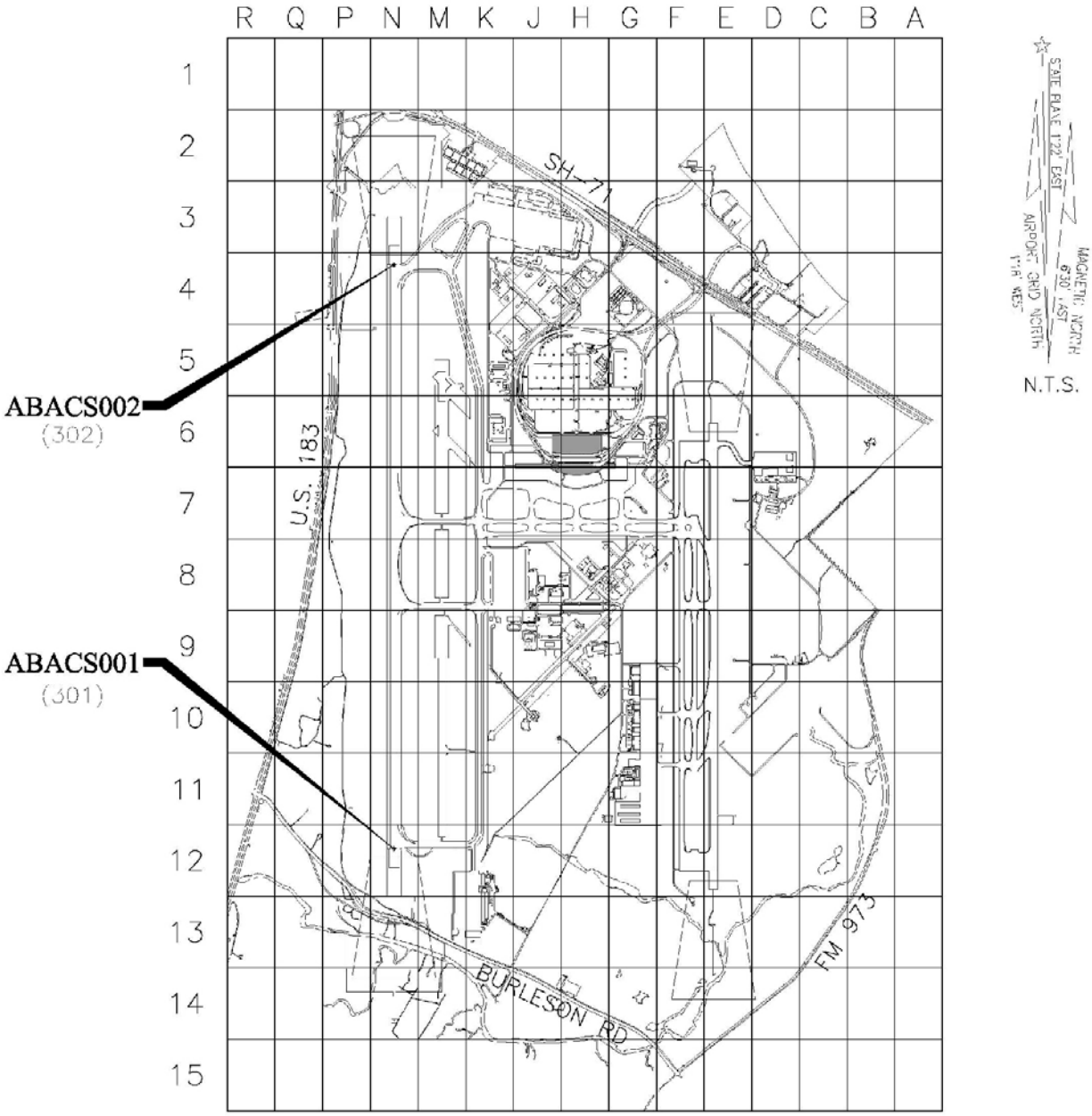
Number of Revisions
When the number of revisions exceeds the number of revision spaces allowed on the standard title block, coordinate with the ABIA Project Manager to accommodate additional revisions.

AUSTIN - BERGSTROM INTERNATIONAL AIRPORT COORDINATE SYSTEM (ABACS)

– OCTOBER 2009 –

ABACS001	
TEXAS STATE PLANE COORDINATES	
NAD–83, CENTRAL ZONE, GRID COORDINATES	
Y COORDINATE	10039194.744
X COORDINATE	3135381.169
ELEVATION	486.88
GEODETIC POSITION	
LATITUDE	30°10'47.8264"N
LONGITUDE	97°40'42.4897"W

ABACS002	
TEXAS STATE PLANE COORDINATES	
NAD–83, CENTRAL ZONE, GRID COORDINATES	
Y COORDINATE	10051429.057
X COORDINATE	3134807.761
ELEVATION	540.99
GEODETIC POSITION	
LATITUDE	30°12'49.0286"N
LONGITUDE	97°40'45.6956"W

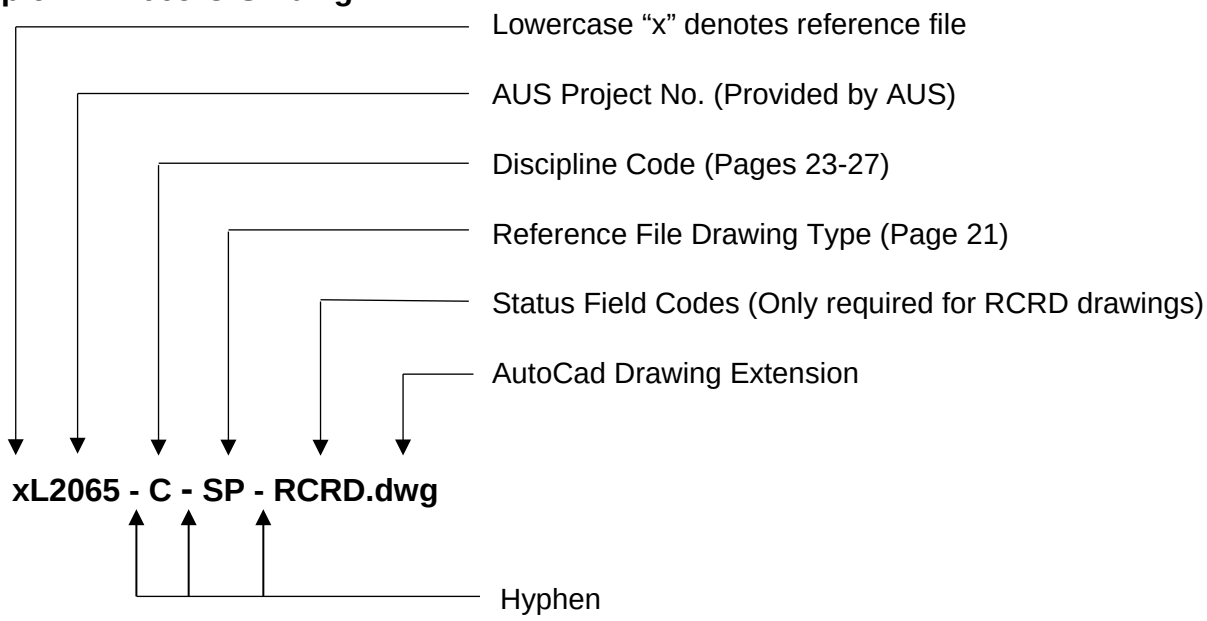


12. EXTERNAL REFERENCE FILES

REFERENCE FILE NAMING CONVENTION

The following guidelines are to be used for naming all reference files associated with the Austin-Bergstrom International Airport. The following is an example of the reference file naming convention.

Example: xL2065-C-SP.dwg



REFERENCE FILE DRAWING

CODE	DRAWING TYPE DESCRIPTION
3D	Isometric/3D
AB	As-Built
AC	Area Calculations/Occupancy Plan
AD	Airport Data
AF	Airfield Plan
AI	Aerial Image/Photograph
AL	Airfield Lighting Plan
AP	Airfield Pavement Marking Plan
AS	Airspace
BL	Boring Location Plan
BM	Base Map
BS	Boundary Survey
CP	Column Plan
CS	Cover Sheet
CT	Control Plan
DG	Diagram
DP	Demolition Plan
DT	Detail
EA	Easement
EC	Exterior Communication Systems Plan
EL	Elevation
EP	Enlarged Plan
ES	Erosion & Sedimentation Control Plan
EU	Electrical Utilities Plan
EV	Environmental Concerns
FA	Fire Alarm/Detection Plan
FD	Foundation Plan
FP	Floor Plan
FR	Framing Plan
FS	Fire Suppression Plan
FT	Furniture Plan
FU	Liquid Fuel Utilities Plan
GI	General Information
GS	Grounding System Plan
GP	Grading Plan
GR	Graphics & Exhibits
HA	HVAC Plan
HP	Hydrographic Survey
HT	HTCW Utilities Plan
IP	Irrigation Plan
IW	Industrial Waste Water Plan
JP	Joint Layout Plan
KP	Key Plan
LB	Boring Log

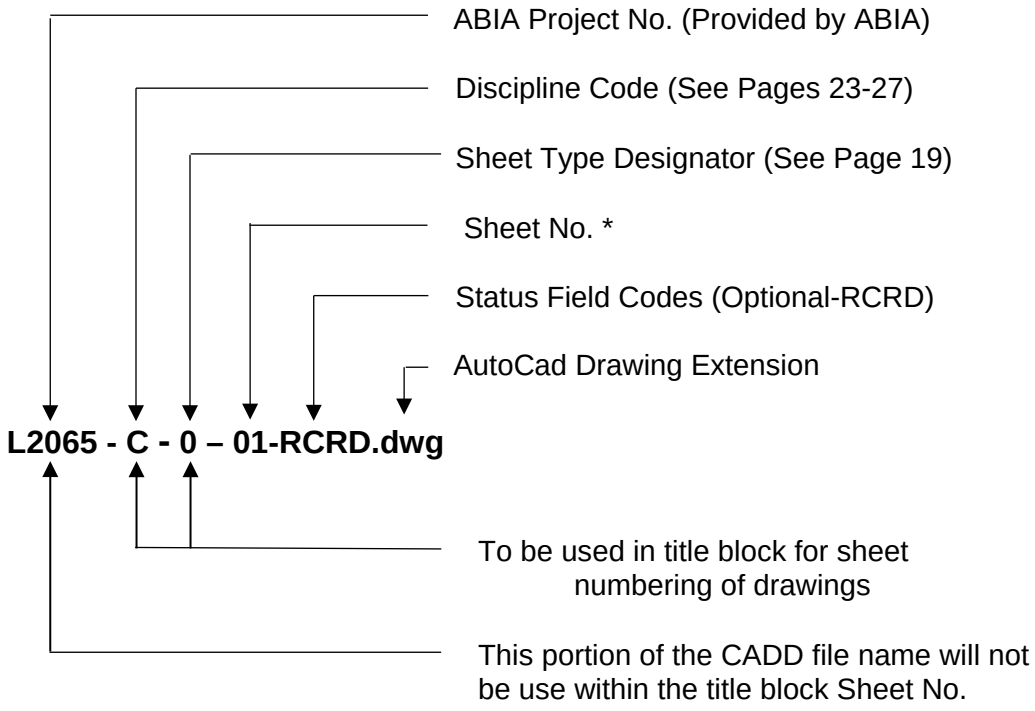
CODE	DRAWING TYPE DESCRIPTION
LG	Legend
LP	Landscape Plan
LT	Lighting Plan
LU	Land Use Plan
MD	Machine Design Plan
MP	Master Plan/Airport Layout Plan
MS	Miscellaneous Plan
NB	Non-Building Structures Plan
NG	Natural Gas Utilities Plan
PB	Project Boundary/Property Boundary
PC	Power & Communication Plan
PH	Phase
PI	Piping Plan
PL	Project Location Map
PP	Pollution Prevention Plan
PR	Profile
PV	Pavement Plan & Striping Plan
PW	Power Plan
QP	Equipment Plan
RC	Reflected Ceiling Plan
RP	Roof Plan
SC	Section
SG	Signage Placement Plan
SH	Schedule
SI	Subsurface Investigation Plan
SK	Staking Plan
SM	Survey and Mapping Plan
SP	Site Plan/Layout Plan
SS	Special Systems Plan
ST	Storm Sewer Plan
TB	Title Block
TC	Traffic Control
TG	Topographic/DTM
TP	Telephone/Data Plan
TS	Transportation Site Plan
TX	Text
UP	Utility Plan
WP	Water Plan
WW	Wastewater Plan
XP	Existing Plan

13. FILE NAME AND SHEET NUMBERING FORMAT

FILE NAMING AND SHEET NUMBERING CONVENTIONS

The following guidelines are to be use for naming all cadd files associated with the AUSTIN-BERGSTROM INTERNATIONAL AIRPORT. File names are to be arrange by AUS Project No., Discipline Code, Drawing Type and Sheet Number. The following is an example of the naming and sheet numbering convention.

Example: L2065-C-0-01.dwg



NOTE: * The Sheet No. will reset to start at 01 as the drawing type changes.

SHEET TYPE DESIGNATORS

0	General (Symbols legend, notes, etc.)
1	Plans (Floor, Ceiling and etc., Site-Civil)
2	Elevations (Vertical and Horizontal views)
3	Sections (Sectional views, wall sections)
4	Large-Scale Views (plans, elevations, stair sections, or sections that are not details)
5	Details
6	Schedules and Diagrams
7	User Defined (for types that do not fall in other categories, including typical detail sheets)
8	User Defined (for types that do not fall in other categories)
9	3d Representations (isometrics, perspectives, photographs)

DISCIPLINE CODES

Level 2		Description of Suggested Name	Content
G	-	General	All or any portion of subjects included in Level 2
-	G	Cover Sheet	Cover sheet with or without sheet index (depends on how many sheet listings). Use GI for sheet index sheet if needed
-	GI	General Information	Sheet Index, general notes, symbols, codes, abbreviations, symbol legend, orientation maps, accessibility access
-	GC	General Contract	Phasing, schedules, contractor staging areas, fencing, haul routes, erosion control, temporary and special requirements
-	GR	General Resource	Photographs, soil borings
-	GE	General Egress	Egress Plan Only (Don't use for Life Safety Plan is different)
H	-	Hazardous Materials	All or any portion of subjects included in Level 2
-	HA	Asbestos	Asbestos abatement, identification or containment
-	HC	Chemicals	Phasing, schedules, contractor staging areas, fencing, haul routes, erosion control, temporary and special requirements
-	HL	Lead	Lead piping or paint removal
-	HP	PCB	PCB containment and removal
-	HR	Refrigerants	Ozone depleting refrigerants
V	-	Survey/Mapping	All or any portion of subjects included in Level 2
-	VA	Aerial	Aerial surveyed points and features
-	VF	Field	Field Surveyed points and features
-	VI	Digital	Digitized points and features
-	VU	Combined Utilities	
B	-	Geotechnical	All or any portion of subjects included in Level 2
-	BH	Bore Hole	Bore Hole
C	-	Civil	All or any portion of subjects included in Level 2
-	CD	Civil Demolition	Structure removal and site clearing
-	CS	Civil Site	Plats, dimension control
-	CG	Civil Grading	Excavation, grading, drainage, erosion control
-	CP	Civil Paving	Roads, driveways, parking lots
-	CI	Civil Improvements	Pavers, flagstone, exterior tile, furnishings, retaining walls, and water features
-	CT	Civil Transportation	Waterways, wharves, docks, trams, railways, people movers
-	CU	Civil Utilities	Water, sanitary sewer, storm sewer, power, communications, fiber optic, telephone, cable television, natural gas, jet fuel and steam systems
-	CUPH	Civil Utilities Phase	Utilities Phasing Plan
-	CSG	Civil Signage	Roadways, streets, parking lots
L	-	Landscape	All or any portion of subjects included in Level 2
-	LD	Landscape Demolition	Demolition, relocation, and salvage information
-	LG	Landscape Grading	Proposed contours and spot grades
-	LI	Landscape Irrigation	Mainlines, valves, controllers, pumps, etc.
-	LL	Landscape Lighting	Lighting
-	LP	Landscape Planting	Landscape Planting
-	LR	Landscape Relocation	Vegetation relocation information
-	LS	Landscape Site	All site hardscape and call-outs
S	-	Structural	All or any portion of subjects included in Level 2
-	SD	Structural Demolition	Protection and removal
-	SS	Structural Site	Site
-	SB	Structural Substructure	Foundations, piers, slabs, and retaining walls
-	SF	Structural Framing	Floors and roofs

DISCIPLINE CODES-cont'd

Level 1	Level 2	Description of Suggested Name	Content
A	-	Architectural	All or any portion of subjects included in Level 2
-	AD	Architectural Demolition	Structural part of building or removing exterior walls and etc
-	AE	Architectural Elements	Sections, Details, Elevations
-	AP	Architectural Partition	Construction Wall
-	RCP	Reflective Ceiling Panel	Reflective ceiling panel layout
I	-	Interiors	All or any portion of subjects included in Level 2
-	IC	Interior Casework	assembling of box-like features such as cabinets, cases, storage areas, and bookshelves
-	ID	Interior Demolition	Interior walls, ceilings, floors, doors, windows and etc
-	IE	Interior Elements	Sections, Details, Elevations
-	IF	Interior Furnishings	Cabinet(s), Free-Standing Cabinet(s), Furniture
-	IG	Interior Graphics	Murals and visuals
-	IJ	User Define	Interior Signage
-	IN	Interior Design	Interior of a area
-	IM	Interior Millwork	base trim, crown molding, interior doors, door frames, window casing, chair rails and wood paneling
-	IS	Interior Signage	Signs & Placards-directional or a location
Q	-	Equipment	All or any portion of subjects included in Level 2
-	Q	Athletic Equipment	Gymnasium, exercise, aquatic and recreational
-	Q	Bank Equipment	Vaults, teller units, ATMs, drive through
-	Q	Dry Cleaning Equipment	Washers, Dryers, Ironing and Dry Cleaning
-	QD	Detention Equipment	Prisons and jails
-	QE	Educational Equipment	Chalkboards, library
-	QF	Food Service Equipment	Kitchen, bar, service, storage, and processing
-	QH	Hospital Equipment	Medical, exam, and treatment
-	QL	Laboratory Equipment	Science labs, planetariums, observatories
-	QM	Maintenance Equipment	Housekeeping, window washing, and vehicle servicing
-	QP	Parking Lot Equipment	Gates, ticket and card access
-	QR	Retail Equipment	Display, vending, and cash register
-	QS	Site Equipment	Bicycle racks, benches, playgrounds
-	QT	Theatrical Equipment	Stage, movie, rigging systems
-	QV	Video/Photographic Equipment	Television, darkroom, and studio
-	QY	Security Equipment	Access control and monitoring, surveillance
F	-	Fire Protection	All or any portion of subjects included in Level 2
-	FA	Fire Detection and Alarm	Smoke alarms, heat alarms, Fire alarm notification appliance, Pull Stations
-	FZ	Fire Suppression	Fire extinguishing systems and equipment
-	FD	Fire Demolition	Demolition
P	-	Plumbing	All or any portion of subjects included in Level 2
-	PS	Plumbing Site	Extension and connections to Civil Utilities
-	PD	Plumbing Demolition	Protection, termination, and removal
-	PP	Plumbing Piping	Piping, valves and insulation
-	PQ	Plumbing Equipment	Pumps and tanks
-	PL	Plumbing	Domestic water, sanitary and storm drainage, fixtures
-	NG	Plumbing-Natural Gas	Gas Riser, Gas Lines
-	QFP	Food Service Plumbing	Connection and fixture types, positions, load requirements

DISCIPLINE CODES-cont'd

Level 1	Level 2	Description of Suggested Name	Content
D	-	Process	All or any portion of subjects included in Level 2
-	D	Process Site	Extension and connections to Civil Utilities
-	D	Process Demolition	Protection, termination and removal
-	D	Process Liquids	Liquid process systems
-	D	Process Gases	Gaseous process systems
-	DR	Process Drains and Reclaims	Piping, valves, system components, equipment
-	DM	Parking Lot Equipment	Piping, valves, system components, equipment
-	DY	Retail Equipment	Piping, valves, system components, equipment
-	DO	Site Equipment	Piping, valves, system components, equipment
-	DV	Theatrical Equipment	Piping, valves, system components, equipment
M	-	Mechanical	All or any portion of subjects included in Level 2
-	MS	Mechanical Site	Utility tunnels and piping between facilities
-	MDH	Mechanical Demolition HVAC/DUCTWORK	HVAC/Ductwork protection, termination and removal
-	MDP	Mechanical Demolition Piping	Piping protection, termination and removal
-	MH	Mechanical HVAC	Ductwork, air devices and equipment
-	MP	Mechanical Piping	Chilled and heating water, steam
-	MI	Mechanical Instrumentation	Instrumentation and control
E	-	Electrical	All or any portion of subjects included in Level 2
-	EG	Electrical Grounding	Grounding
-	ES	Electrical Site	Utility tunnels and site lighting
-	ED	Electrical Demolition	Protection, termination and removal
-	EP	Electrical Power	Electric Circuit
-	EL	Electrical Lighting	Light Fixtures
-	EI	Electrical Instrumentation	Controls, relays, instrumentation and measurement devices
-	ET	Electrical Telecommunications	Telephone, network, voice and data cables
-	EY	Electrical Auxiliary Systems	Alarms, nurse call, security, CCTV, PA, music, clock and program
-	QFE	Food Service Electrical	Connection and fixture types, positions, load requirements
W		Distributed Energy	All or any portion of subjects
T	-	Telecommunications	All or any portion of subjects included in Level 2
-	TA	Audio Visual	Cable, music and CCTV systems
-	TC	Clock and Program	Time generators and bell program systems
-	TI	Intercom	Intercom and public address systems
-	TM	Monitoring	Monitoring and alarm systems
-	TN	Data Networks	Data switching, transmission lines, and system controls
-	TY	Security	
R	-	Resource	All or any portion of subjects included in Level 2
-	RC	Resource Civil	Surveyor's information and existing civil drawings
-	RS	Resource Structural	Existing facility structural drawings
-	RA	Resource Architectural	Existing facility architectural drawings
-	RM	Resource Mechanical	Existing facility mechanical drawings
-	RE	Resource Electrical	Existing facility electrical drawings
-	RP	Resource Plumbing	Existing facility plumbing drawings
-	RFA	Resource Fire Detection and Alarm	Existing facility pull stations, smoke alarms, heat alarms and Fire alarm notification appliance
-	RFZ	Resource Fire Suppression	Existing facility fire suppression drawings
Z	-	Contractor/Shop Drawings	All or any portion of subjects included in Level 2
O	-	Operations	All or any portion of subjects included in Level 2

14. LAYER NAME FORMAT

LAYERING

All drawings must conform to the ABIA predetermined layer structure. See Appendix F for predetermined layers and abbreviations. Layers not listed on the layering standards, but necessary for drawing production must follow the national cadd standards V.4.0 layering standards.

Any exceptions to the predetermined layer structure must be submitted in writing and approved by the AUS Project Manager.

LAYER NAMING CONVENTION:

The following guidelines are to be use for naming all layers within all cadd drawing files associated with the Austin-Bergstrom International Airport. A one-character discipline code, a four character general abbreviation, a four character specific abbreviation, and an optional four character descriptive abbreviation or project number arranges the layer naming convention. All fields are to be separated by a hyphen. The following is an example of the layer naming convention.

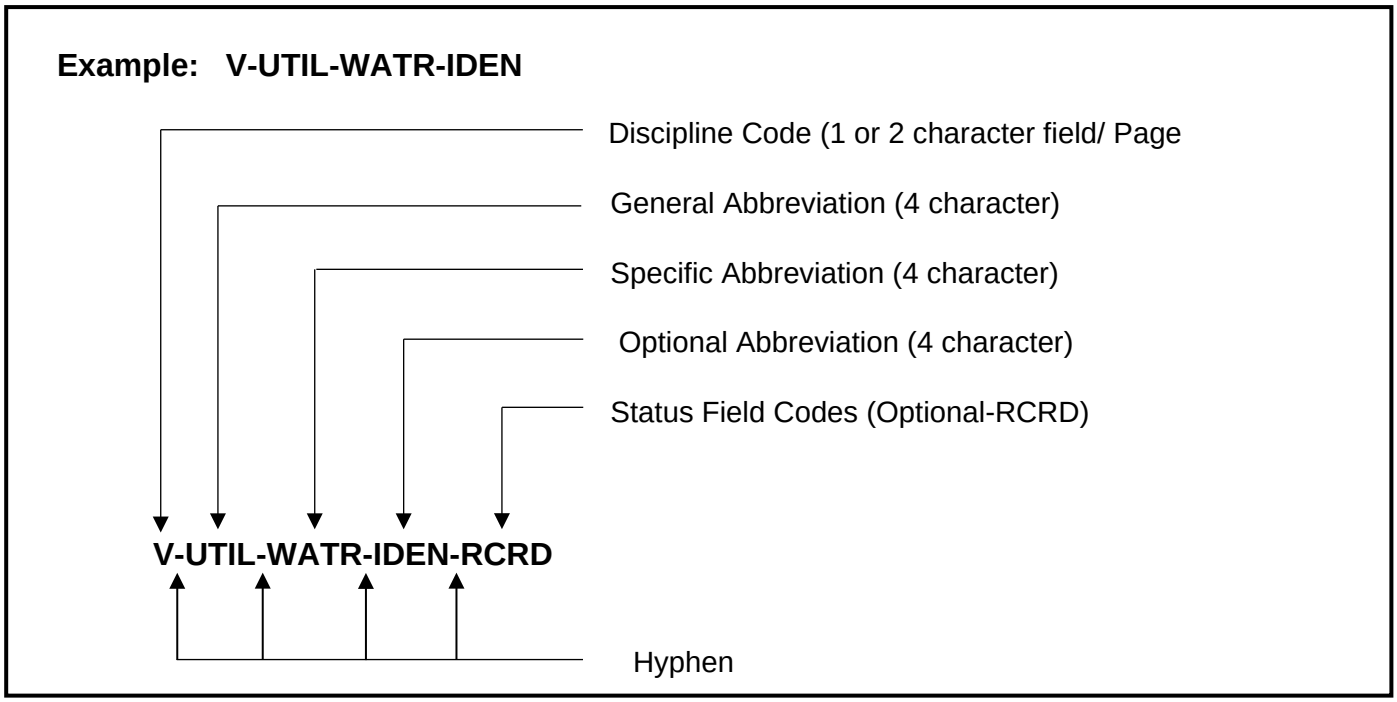


Figure 2: Layer Naming Convention

As-built layer shall use the above-mentioned guideline with an “RCRD” abbreviation added to the end of the layer name. Example: V-UTIL-WATR-RCRD.
Consultant shall incorporate Contractor’s “As-built” information to CADD drawing files
Note: For quick compliance of cadd standards, ask for an AUS drawing template. Then use AutoCAD’s “match properties”.

ARCHITECTURAL LAYER NAMING

General Annotation (ANNO)

*Insert Discipline Code/ **Insert BOLD, MEDM OR FINE for text weights

Layer Name	Layer Description	Line Type
*-ANNO-BORD	Border	
*-ANNO-CALC	Calculation	Continuous
*-ANNO-DIMS	Dimension Lines , Texts and Arrows	Continuous
*-ANNO-KEYN	Reference Keynotes/Text with Associated Leaders	Continuous
*-ANNO-LABL	Labels	Continuous
*-ANNO-LEGN	Legend and Schedule	Continuous
*-ANNO-MTCH	Match lines	Phantom
*-ANNO-NOTE	General Notes	Continuous
*-ANNO-NPLT	Non-Plotting Graphic Information	Continuous
*-ANNO-REDL	Redlines	Continuous
*-ANNO-REFR	Reference Files	Continuous
*-ANNO-REVC	Revision Cloud	Continuous
*-ANNO-REVS	Revisions	Continuous
*-ANNO-SYMB	Miscellaneous Symbols	Continuous
*-ANNO-TABL	Table	Continuous
*-ANNO-TEXT -**	Misc. Text/Call-Outs with Associated Leaders	Continuous
*-ANNO-TITL	Drawing/Detail Title	Continuous
*-ANNO-TTBL	Title Block & Border	Continuous
*-ANNO-VIEW	Paper space Viewport	Continuous

Detail (DETL)

* Insert Discipline Code

Layer Name	Layer Description	Line Type
*-DETL-ANNO	Dimensions and Notes	Continuous
*-DETL-BORD	Detail Border	Continuous
*-DETL-GRPH	Graphics, Gridlines, Non-Text Items	Continuous
*-DETL-PATT	Textures and Hatch Patterns	Continuous

General Feature (GENF)

* Insert Discipline Code

Layer Name	Layer Description	Line Type
*-GENF-DATA	General Feature - Data	Continuous

ARCHITECTURAL LAYER NAMING - cont'd

Construction Area State (STAT)

* Insert Discipline Code

Layer Name	Layer Description	Line Type
*-STAT-ABND	Abandoned	Hidden
*-STAT-DEMO	Demolition	Hidden2
*-STAT-DEMO-PHS1	Demolition - Phase 1	Demoln
*-STAT-DEMO-PHS2	Demolition - Phase 2	Demoln
*-STAT-EXST	Existing To Remain	Hidden2
*-STAT-FUTR	Future Work	Continuous
*-STAT-MOVE	Items To Be Moved	Continuous
*-STAT-NEWW	New Work	Continuous
*-STAT-NICN	Not In Contract	Continuous
*-STAT-RELO	Relocated Items	Continuous
*-STAT-TEMP	Temporary Work	Continuous

Area and Boundaries (AREA)

Layer Name	Layer Description	Line Type
A-AREA-IDEN	Room Number, Tenant Identification, Area Calculations	Continuous
A-AREA-LINE	Architectural Area Calculation Boundary Lines	Phantom2
A-AREA-OCCP	Occupant Or Employee Names	Continuous
A-AREA-PATT	Area Hatching	Continuous

Baggage Handling Equipment (BAGS)

Layer Name	Layer Description	Line Type
A-BAGS-CART	Baggage Cart/Tug	Continuous
A-BAGS-CATW	Maintenance Catwalk	Continuous
A-BAGS-CONV	Baggage Conveyor	Continuous
A-BAGS-CTRL	Control	Continuous
A-BAGS-DEVC	Baggage Devices/Equipment	Continuous
A-BAGS-DIMS	Dimension	Continuous
A-BAGS-DOOR	Doors	Continuous
A-BAGS-NOTE	General Notes	Continuous
A-BAGS-RWAY	Right-of-Way Striping	Dashed
A-BAGS-SCDR	Security Door	Continuous
A-BAGS-SCNU	Screening Unit / X-ray Unit	Continuous
A-BAGS-SYMB	Symbols	Continuous
A-BAGS-TEXT	Text	Continuous

ARCHITECTURAL LAYER NAMING - cont'd

Ceiling (CLNG)

Layer Name	Layer Description	Line Type
A-CLNG-ACCS	Access Panels	Dashed
A-CLNG-CTLJ	Ceiling Control Joints	Continuous
A-CLNG-GRID	Ceiling Grid	Center2
A-CLNG-LEVL	Level Changes	Dashed2
A-CLNG-OPEN	Openings, Ceiling or Roof Penetrations	Dashed2
A-CLNG-SUSP	Suspended or Ceiling Mounted Elements	Continuous

Doors (DOOR)

Layer Name	Layer Description	Line Type
A-DOOR-FIRE	Fire Rated Door	Continuous
A-DOOR-FULL	Full Height Door	Continuous
A-DOOR-IDEN	Door Number and Symbol, Hardware Group, Etc.	Continuous
A-DOOR-PRHT	Partial Height Door	Continuous
A-DOOR-SYMB	Misc. Door Symbols (e.g. Overhead, Bi-Fold, Pocket)	Continuous

Elevation (ELEV)

Layer Name	Layer Description	Line Type
A-ELEV-CSWK	Wall-Mounted Casework	Continuous
A-ELEV-DIMS	Dimension Lines, Text and Arrow	Continuous
A-ELEV-FIXT	Miscellaneous Fixtures	Continuous
A-ELEV-FNSH	Finishes, Woodwork and Trim	Continuous
A-ELEV-IDEN	Identification Numbers / Text	Continuous
A-ELEV-NOTE	General Notes	Continuous
A-ELEV-OTLN	Building Outlines	Continuous
A-ELEV-PATT	Textures and Hatch Patterns	Continuous
A-ELEV-SIGN	Signage	Continuous

Equipment (EQPM)

Layer Name	Description	Line Type
A-EQPM-ACCS	Equipment Access	Dashed
A-EQPM-BELW	Equipment Below Floor	Hidden
A-EQPM-COPY	Equipment – Copiers, Fax Machines, Office Equipment	Continuous
A-EQPM-IDEN	Equipment Identification Numbers	Continuous

ARCHITECTURAL LAYER NAMING - cont'd

Equipment- cont'd (EQPM)

Layer Name	Description	Line Type
A-EQPM-NICN	Not In Contract Equipment	Dashed2
A-EQPM-OVHD	Overhead, Ceiling Mounted and Suspended Equipment	Continuous
A-EQPM-SECU	Security Equipment	Continuous
A-EQPM-STOR	Storage Equipment	Continuous

Floor (FLOR)

Layer Name	Layer Description	Line Type
A-FLOR-CSWK	Casework (Manufactured Cabinets)	Continuous
A-FLOR-EVTR	Elevator Cars and Equipment	Continuous
A-FLOR-FIXT	Floor Mounted/Free Standing Fixtures (Plumbing)	Continuous
A-FLOR-HRAL	Handrails/Guard Rails	Continuous
A-FLOR-IDEN	Room Name, Space Identification	Continuous
A-FLOR-LEVL	Level Changes, Shafts, Ramps, Pits	Continuous
A-FLOR-OTLN	Floor and Building Outline (Building Footprint)	Continuous
A-FLOR-OTLN-RPRM	Room Perimeter Outline (Interior Walls)	Phantom2
A-FLOR-OVHD	Overhead Items (Skylights, Overhangs Etc.)	Dashed
A-FLOR-PATT	Paving, Tile, Carpet Patterns	Continuous
A-FLOR-RAIS	Access (Raised) Flooring	Continuous
A-FLOR-SIGN	Signage	Continuous
A-FLOR-STRS	Stair Risers/Treads, Escalators, Ladders	Continuous
A-FLOR-TPTN	Toilet Partitions	Continuous
A-FLOR-WDWK	Architectural Woodwork	Continuous

Furniture (FURN)

Layer Name	Layer Description	Line Type
A-FURN-ARTW	Artwork	Continuous
A-FURN-CSWK	Casework (Desks, Credenzas, Shelves, Etc.)	Continuous
AI-FURN-FLOR	Flooring (Carpet, Rugs, Etc.)	Continuous
A-FURN-FURN	Furnishings	Continuous
A-FURN-IDEN	Furniture Code Identification	Continuous
A-FURN-MISC	Miscellaneous Furniture	Continuous
A-FURN-PANL	Panels	Continuous
A-FURN-PLNT	Plants	Continuous
A-FURN-STOR	File Cabinets, Shelving, Storage Cabinets	Continuous

ARCHITECTURAL LAYER NAMING - cont'd

Windows (GLAZ)

Layer Name	Layer Description	Line Type
A-GLAZ-FULL	Full Height Glazed Walls and Windows	Continuous
A-GLAZ-IDEN	Window Number and Symbol	Continuous
A-GLAZ-PRHT	Windows and Partial Height Glazed Partitions	Continuous
A-GLAZ-SILL	Window Sills	Continuous

Property (PROP)

Layer Name	Layer Description	Line Type
A-PROP-LEAS	Lease Line (Interior)	Phantom2
A-PROP-LEAS-IDEN	Lease Identification	Continuous

Roof (ROOF)

Layer Name	Description	Line Type
A-ROOF-CRTS	Crickets Flow Arrows Flow Info	Continuous
A-ROOF-EXPJ	Expansion Joints	Continuous
A-ROOF-GUTR	Roof Gutters	Continuous
A-ROOF-HRAL	Stair Handrails and Guard Rails	Continuous
A-ROOF-LEVL	Level Changes	Dashed
A-ROOF-OPEN	Roof Open Below	Hidden
A-ROOF-OTLN	Roof Outline	Dashed
A-ROOF-PATT	Roof Textures and Hatch Patterns	Continuous
A-ROOF-RFDR	Roof Drains	Continuous
A-ROOF-SPCL	Roof Specialties, Accessories, Dormers, Canopy	Continuous
A-ROOF-STRS	Stair Risers/Treads, Ladders	Continuous
A-ROOF-WALK	Roof Walkways	Continuous
A-ROOF-WALL	Parapet Walls and Wall Caps	Continuous

Sections (SECT)

Layer Name	Description	Line Type
A-SECT-DETL	Section Cut Detail	Continuous
A-SECT-DIMS	Dimensions, Text and Arrows	Continuous
A-SECT-IDEN	Component Identification Numbers	Continuous
A-SECT-PATT	Textures and Hatch Patterns	Continuous
A-SECT-TEXT	Miscellaneous Text	Continuous

ARCHITECTURAL LAYER NAMING - cont'd

Wall (WALL)

Layer Name	Description	Line Type
A-WALL-CNTR	Wall Centerlines	Center
A-WALL-CWMG	Curtain Wall Mullions and Glass	Continuous
A-WALL-FIRE	Fire Wall Designators	Continuous
A-WALL-FULL-EXTR	Exterior Full Height Walls	Continuous
A-WALL-FULL-INTR	Interior Full Height Walls	Continuous
A-WALL-HEAD	Door and Window Headers	Continuous
A-WALL-IDEN	Wall Identification	Continuous
A-WALL-JAMB	Door and Window Jambs	Continuous
A-WALL-MOVE	Moveable Walls or Partitions	Continuous
A-WALL-PATT	Wall Textures and Hatch Patterns	Continuous
A-WALL-PRHT	Partial Height Walls	Continuous
A-WALL-SPCL	Wall-Hung/Attached Specialties	Continuous

CIVIL LAYER NAMING

Aircraft (ACFT)

Layer Name	Description	Line Type
C-ACFT-IDEN	Aircraft Identification	Continuous
C-ACFT-SYMB	Graphic Illustration Of Aircraft	Continuous

Airfield (AFLD)
Air Field (AIRF)

Layer Name	Description	Line Type
C-AFLD-AIDS	Airfield Navigational Aid, Airfield Lighting System	Continuous
C-AFLD-PVMT	Airfield Pavement	Continuous
C-AFLD-IDEN	Airfield Identification	Continuous
C-AIRF-AHOA	Aircraft / Helicopter Operations Area	Continuous
C-AIRF-AIDS-CRIT	Airfield Navigational Aid - Critical Area	Hidden2
C-AIRF-AIDS-ILS	Airfield Instrument Landing System	Continuous
C-AIRF-AIDS-MCWV	Microwave Airfield Navigational Aides	Continuous
C-AIRF-AIDS-OTHR	Other Airfield Navigational Aides	Continuous
C-AIRF-AIDS-RADI	Radio Airfield Navigational Aides	Continuous
C-AIRF-AIDS-RADR	Radar Airfield Navigational Aides	Continuous
C-AIRF-AIDS-RMTE	Remote Airfield Navigational Aides	Continuous
C-AIRF-AIDS-SITE	Airfield Navigational Aid - Site	Continuous
C-AIRF-AIDS-WTHR	Weather Airfield Navigational Aides	Continuous
C-AIRF-DSRF-BLDR	Building Restriction Line	Hidden
C-AIRF-DSRF-KEYH	Key Holes	Continuous
C-AIRF-DSRF-NMOV	Aircraft Non-Movement Area	Continuous
C-AIRF-DSRF-OFA_	Object Free Area	Phantom
C-AIRF-DSRF-OFZ_	Object Free Zone	Phantom
C-AIRF-DSRF-POFA	Precision Object Free Area	Phantom
C-AIRF-DSRF-RPZ_	Runway Protection Zone	Phantom
C-AIRF-DSRF-RSA_	Runway Safety Area	Dashed
C-AIRF-FAAR	FAA Region	Continuous
C-AIRF-FREQ	Frequency Area	Continuous
C-AIRF-JETB	Airport Jet bridge	Continuous
C-AIRF-SECR-RSTR	Restricted Access Boundary	Continuous
C-AIRF-SECR-SECA	Airfield Security Area	Continuous
C-AIRF-SECR-SIDA	Security Identification Display Area	Fence2x
C-AFLD-SECR-STER	Airfield Sterile Area	Continuous

CIVIL LAYER NAMING - cont'd

Airspace (AIRS)

Layer Name	Description	Line Type
C-AIRS-AAAS-APRC	Airport Airspace Analysis Survey – Approach Surfaces	Continuous
C-AIRS-AAAS-CONL	Airport Airspace Analysis Survey – Conical Surface	Continuous
C-AIRS-AAAS-HORZ	Airport Airspace Analysis Survey – Horizontal Surface	Continuous
C-AIRS-AAAS-PRIM	Airport Airspace Analysis Survey – Primary Surfaces	Continuous
C-AIRS-AAAS-TRNS	Airport Airspace Analysis Survey – Transitional Surfaces	Continuous
C-AIRS-AAAS-VERT	Airport Airspace Analysis Survey – Vertical Guidance Protection Surface	Continuous
C-AIRS-LNDM	Landmark Segment	Continuous
C-AIRS-OBST-LINE	Airspace Obstructions - Line	Continuous
C-AIRS-OBST-POLY	Airspace Obstructions - Polygon	Continuous
C-AIRS-OBST-PPNT	Airspace Obstructions - Point	Continuous
C-AIRS-OEIA	One Engine Inoperative Analysis	Continuous
C-AIRS-OTHR	Other Airspace Surfaces	Continuous
C-AIRS-PART-APRC	14 CFR Part 77 Approach Surface	Continuous
C-AIRS-PART-CONL	14 CFR Part 77 Conical Surface	Continuous
C-AIRS-PART-HORZ	14 CFR Part 77 Horizontal Surface	Continuous
C-AIRS-PART-PRIM	14 CFR Part 77 Primary Surface	Continuous
C-AIRS-PART-TRNS	14 CFR Part 77 Transitional Surface	Continuous
C-AIRS-TERP	Terminal Instrument Procedures	Continuous
C-AIRS-TERP-DEPT	Departure Analysis	Continuous

Alignments (ALGN)

Layer Name	Description	Line Type
C-ALGN-DATA	Alignment Coordinates and Curve Data	Continuous
C-ALGN-LINE	Alignments	Continuous

CIVIL LAYER NAMING - cont'd

Apron (APRN)

Layer Name	Layer Description	Line Type
C-APRN-ABND	Apron Abandoned	Hidden
C-APRN-ACCS	Apron Access Road	Hidden
C-APRN-ACPK	Aircraft Gate/Stand Parking Area	Continuous
C-APRN-ANOM	Aircraft Non-Movement Area	Continuous
C-APRN-CNTR	Centerlines	Center2
C-APRN-CNTR -IDEN	Centerlines Identification	Continuous
C-APRN-DEIC	Aircraft Deicing Area	Continuous
C-APRN-HOLD	Holding Position Markings	Continuous
C-APRN-IDEN	Annotation	Continuous
C-APRN-JOIN	Apron Joints	Continuous
C-APRN-MRKG	Apron Markings	Continuous
C-APRN-OTLN	Airfield Apron - Outlines	Continuous
C-APRN-SECU	Security Zone Markings	Continuous
C-APRN-SHLD	Shoulder Stripes	Continuous
C-APRN-SIGN	Airfield Signs on the Apron	Continuous

Archaeological (ARCL)

Layer Name	Layer Description	Line Type
C-ARCL-IDEN	Archaeological Site Annotation/Identification	Continuous
C-ARCL-OTLN	Archaeological Site Outline	Continuous

Building and Structures (BLDG)

Layer Name	Layer Description	Line Type
C-BLDG-ANNO-DELV	Building and Other Structure Annotation (Del Valle)	Continuous
C-BLDG-ANNO-DOA	Building and Other Structure Annotation (Dept. Of Aviation)	Continuous
C-BLDG-IDEN	Building and Other Structure Identification	Continuous
C-BLDG-OTLN	Buildings and Other Structures Outline	Continuous
C-BLDG-PATT	Building Textures and Hatch Patterns	Continuous

Cable (CABL)

Layer Name	Layer Description	Line Type
C-CABL-ANNO	Fiber Optic Cable Annotation/Identification	Continuous
C-CABL-FIBR	Fiber Optic Cable	Continuous

CIVIL LAYER NAMING - cont'd

Cemetery (CEME)

Layer Name	Layer Description	Line Type
C-CEME-ANNO	Cemetery Annotation/Identification	Continuous
C-CEME-FENC	Cemetery Fence	Fence2x

Detail (DETL)

Layer Name	Layer Description	Line Type
C-DETL-FENC	Fencing	FENCE
C-DETL-FENC-SECU	Security Fencing	FENCE
C-DETL-GRPH	Graphics, Grid Lines, Non-text items	Continuous
C-DETL-PATT	Detail pattern, hatching	Continuous
C-DETL-PAVE	Pavements	Continuous
C-DETL-TANK	Tanks	Continuous

Erosion and Sedimentation (EROS)

Layer Name	Layer Description	Line Type
C-EROS -IPRT	Erosion & Sedimentation Controls - Inlet Protection	Continuous
C-EROS -RRAP	Erosion & Sedimentation Controls - Riprap	Continuous
C-EROS -SILT	Erosion & Sedimentation Controls - Silt Fence	SILT
C-EROS -SCEC	Erosion & Sedimentation Controls - Stabilized Construction Entrance Controls	Continuous
C-EROS -TPRT	Erosion & Sedimentation Controls - Tree Protection	TP
C-EROS -TFDC	Erosion & Sedimentation Controls - Triangular Filter Dike Controls	Continuous

CIVIL LAYER NAMING - cont'd

Liquid Fuel (FUEL)

Layer Name	Layer Description	Line Type
C-FUEL-ABND	Abandoned Piping	LIQPET
C-FUEL-DEFL	Defueling Piping	Continuous
C-FUEL-DEVC	Hydrant Fill Points, Line Vents, Markers, Oil/Water Separators, Reducers, Regulators, and Valves	Continuous
C-FUEL-FTTG	Pipe Fittings (e.g. Caps, Crosses, and Tees)	Continuous
C-FUEL-HYDR	Hydrant Control Pits	Continuous
C-FUEL-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
C-FUEL-JBOX	Junction Boxes, Manholes, Hand holes, Test Boxes	Continuous
C-FUEL-MAIN	Main Fuel Piping	LIQPET
C-FUEL-METR	Meters	Continuous
C-FUEL-PITS-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
C-FUEL-PUMP	Booster Pump Stations	Continuous
C-FUEL-SERV	Service Piping	LIQPET
C-FUEL-TANK	Fuel Tanks	Continuous
C-FUEL-TRCH	Fuel Line Trench	Continuous
C-FUEL-VENT	Vent Pits	Continuous
C-FUEL-VLVE	Valve Pits	Continuous

Grade Line work (GRAD)

Layer Name	Layer Description	Line Type
C-GRAD-EXST	Existing Grade, Existing Ground Line	Dashed
C-GRAD-FNSH	Finished Grade	Continuous

Grid Lines (GRID)

Layer Name	Layer Description	Line Type
C-GRID-FRAM	Frame (Bounding Frame Referenced by a Grid)	Continuous
C-GRID-MAJR	Major Grid Lines	Center2
C-GRID-MINR	Minor Grid Lines	Center2
C-GRID-TEXT	Grid Identification	Continuous

CIVIL LAYER NAMING - cont'd

Heliports (HELI)

Layer Name	Layer Description	Line Type
C-HELI-BLST	Blast Pad and Stop way Markings	Continuous
C-HELI-CNTR-MARK	Centerline Markings	Center
C-HELI-DIST	Fixed Distance Markings	Continuous
C-HELI-DSFR	Helipad Design Surface	Phantom
C-HELI-IDEN	Heliport Numbers and Letters	Continuous
C-HELI-SHLD	Shoulder Markings	Continuous
C-HELI-SIDE	Side Stripes	Continuous
C-HELI-TDZM	Touchdown Zone Markers	Continuous
C-HELI-TLOF	Helipad Take Off and Landing Area	Continuous

Industrial Waste Water (INDW)

Layer Name	Layer Description	Line Type
C-INDW-ABND	Abandoned Piping	IWASTE
C-INDW-DEVC	Grit Chambers, Meters, Flumes, Neutralizers, Oil/Water Separators, Ejectors, Tanks, and Valves	Continuous
C-INDW-FTTG	Caps and Cleanouts	Continuous
C-INDW-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
C-INDW-JBOX	Junction Boxes	Continuous
C-INDW-LIFT	Lift Stations	Continuous
C-INDW-MAIN	Main Industrial Waste Water Piping	IWASTE
C-INDW-MHOL	Industrial Waste Manhole	Continuous
C-INDW-PLNT	Treatment Plants	Continuous
C-INDW-SERV	Industrial Waste Water Service Piping	IWASTE
C-INDW-SIGN	Surface Markers/Signs	Continuous

CIVIL LAYER NAMING - cont'd

Natural Gas (NGAS)

Layer Name	Layer Description	Line Type
C-NGAS-ABND	Abandoned Piping	NGAS
C-NGAS-DEVC	Hydrant Fill Points, Lights, Markers, Rectifiers, Reducers, Regulators, Sources, Tanks, Drip Pots, Taps, and Valves	Continuous
C-NGAS-DEVC-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
C-NGAS-FTTG	Caps, Crosses, and Tees	Continuous
C-NGAS-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
C-NGAS-MAIN	Main Natural Gas Piping	NGAS
C-NGAS-METR	Meters	Continuous
C-NGAS-PUMP	Compressor Stations	Continuous
C-NGAS-REDC	Reducing Stations	Continuous
C-NGAS-SERV	Service Piping	NGAS
C-NGAS-SIGN	Surface Markers/Signs	Continuous
C-NGAS-VENT	Vent Pits	Continuous
C-NGAS-VLVE	Valve Pits/Boxes	Continuous

Overrun Areas (OVRN)

Layer Name	Layer Description	Line Type
C-OVRN-CNTR	Centerlines	Center
C-OVRN-IDEN	Airfield Overrun Area - Annotation	Continuous
C-OVRN-OTLN	Airfield Overrun Area - Outlines	Continuous
C-OVRN-SHLD	Shoulder Markings	Continuous

Pads (PADS)

Layer Name	Layer Description	Line Type
C-PADS-CNTR	Centerlines	Center
C-PADS-IDEN	Pads - Annotation	Continuous
C-PADS-OTLN	Pad - Outlines	Continuous
C-PADS-SHLD	Shoulders With Annotation	Continuous

CIVIL LAYER NAMING - cont'd

Parking Lots (PKNG)

Layer Name	Layer Description	Line Type
C-PKNG-CARS	Graphic Illustration Of Cars	Continuous
C-PKNG-CURB -*	Parking Lot Curbs and Gutters - (* Face, Back or GUTR)	Continuous
C-PKNG-EDGE-PVMT	Parking Edge of Pavement	Continuous
C-PKNG-EQPM	Parking Equipment (e.g. Booths, Gates, Etc.)	Continuous
C-PKNG-FIXT	Parking Lot Fixtures (e.g., Wheel Stops, Parking Meters)	Continuous
C-PKNG-IDEN	Parking Lot, Minor Road, and Curb Annotation	Continuous
C-PKNG-ISLD	Parking Islands	Continuous
C-PKNG-OTLN	Parking Lots	Continuous
C-PKNG-SIGN	Parking Lot Signs	Continuous
C-PKNG-STRP	Parking Lot Striping, Handicapped Symbols, Pavement Markings	Continuous

Profiles (PROF)

Layer Name	Layer Description	Line Type
C-PROF-ANNO	Existing Grade and Grading Cuts - Annotation	Continuous
C-PROF-GRAD	New Work, Grading Fills	Continuous
C-PROF-GRID	Profile Grid	Continuous
C-PROF-INLT	Curb and Surface Inlets, Catch Basins	Continuous
C-PROF-MHOL	Manholes	Continuous
C-PROF-LABL	Profile Elevation and Station Labels	Continuous
C-PROF-PIPE	Piping	Continuous
C-PROF-ROAD	Roads	Continuous

Property (PROP)

Layer Name	Layer Description	Line Type
C-PROP-BNDY	Property Boundary	PROPL
C-PROP-BRNG	Property – Bearing and Distance Annotation/Labels	PROPL
C-PROP-CONS	Construction Limits/Controls, Staging Area	LOC
C-PROP-ESMT	Easements	Dashed2
C-PROP-IDEN	Property Annotation	Continuous
C-PROP-LEAS	Lease Line (Exterior / Ground Lease)	Phantom2
C-PROP-LNDF	Landfill	Continuous
C-PROP-LUSE	Land Use Area	Phantom
C-PROP-PRCL	Parcel	LOC
C-PROP-PROP	Airport Property	PROPL
C-PROP-RWAY	Right Of Ways	ROW

CIVIL LAYER NAMING - cont'd

Pavement (PVMT)

Layer Name	Layer Description	Line Type
C-PVMT-ASPH	Pavement Pattern - Asphalt	Continuous
C-PVMT-CONC	Pavement Pattern - Concrete	Continuous
C-PVMT-EDGE	Pavement Edge	Continuous
C-PVMT-GRVL	Pavement Pattern - Gravel	Continuous
C-PVMT-IDEN	Road, Parking Lot, Airfield Pavement Annotation	Continuous
C-PVMT-MRKG	Pavement Markings	Continuous
C-PVMT-MRKG-WHIT	Roadway Markings (White)	Continuous
C-PVMT-MRKG-YELO	Roadway Markings (Yellow)	Continuous
C-PVMT-PATT	Pavement Textures and Hatch Patterns	Continuous
C-PVMT-SIGN	Other Signs	Continuous

Railroad (RAIL)

Layer Name	Layer Description	Line Type
C-RAIL-CNTR	Centerlines	Center
C-RAIL-EQPM	Railroad Equipment (e.g., Gates, Signals)	Continuous
C-RAIL-IDEN	Railroad - Annotation	Continuous
C-RAIL-TRAK	Railroads Tracks	RAILRD
C-RAIL-YARD	Railroad Yard	Continuous

Roads (ROAD)

Layer Name	Layer Description	Line Type
C-ROAD-CNTR	Centerlines	Center
C-ROAD-CURB	Curbs (Face of Curb, Back of Curb, Top of Curb)	Continuous
C-ROAD-DRIV	Driveway Edge of Pavement	Continuous
C-ROAD-DRIV-CNTR	Driveway Centerline	Center
C-ROAD-ELVD	Elevated Road	Continuous
C-ROAD-GRAL	Guardrails	Continuous
C-ROAD-IDEN	Road Name, Curb and Guardrail Annotation	Continuous
C-ROAD-OTLN	Roads	Continuous
C-ROAD-POIN	Road Point	Continuous
C-ROAD-PVMT	Roadway Edge of Pavement	Continuous
C-ROAD-SIGN	Road Sign	Continuous

CIVIL LAYER NAMING - cont'd

Runway (RUNW)

Layer Name	Layer Description	Line Type
C-RUNW-ARST	Runway Arresting Gear Location	Continuous
C-RUNW-ARST-AIDS-CRIT	Runway Arresting Gear Location	Continuous
C-RUNW-BLST	Blast Pad Markings	Continuous
C-RUNW-CLRW	Runway Clearway	Phantom
C-RUNW-CNTR	Centerline	Continuous
C-RUNW-CNTR-MARK	Centerline Markings	Continuous
C-RUNW-DISP	Displaced Threshold Markings	Continuous
C-RUNW-DIST	Fixed Distance Markings	Continuous
C-RUNW-EDGE	Airfield Runway Edges	Continuous
C-RUNW-ENDP	Runway Endpoint	Continuous
C-RUNW-IDEN-MARK	Runway Numbers and Letters	Continuous
C-RUNW-INTS	Runway Intersection	Continuous
C-RUNW-LAHS	Runway Land and Hold Short Area	Continuous
C-RUNW-NUMB	Runway Numbers and Letters	Continuous
C-RUNW-SAFT	Runway Safety Area	Dashed
C-RUNW-SEGM	Runway Element	Continuous
C-RUNW-SHLD	Shoulder Markings	Continuous
C-RUNW-SIDE	Side Stripes	Continuous
C-RUNW-SIGN	Airfield Signs on the Runway such as Distance Remaining Signs	Continuous
C-RUNW-STWY	Runway Stop way Markings	Continuous
C-RUNW-TDZM	Touchdown Zone Markers	Continuous
C-RUNW-THRS	Threshold Markers	Continuous

Security (SECR) (SECU)

Layer Name	Layer Description	Line Type
C-SECR-SECA	An Area of the Airport in which Security Measures Required by 49 CFR 1542.201	Dashed
C-SECU-EQPM	Security Equipment	Continuous
C-SECU-GATE	Security Gate	Continuous
C-SECU-FENC	Security Fencing	FENCE

CIVIL LAYER NAMING - cont'd

Site Improvement (SITE)

Layer Name	Layer Description	Line Type
C-SITE-ENVR	Environmental Site	FENCE
C-SITE-FENC	Fences	FENCE
C-SITE-FENC-IDEN	Fence, Handrail, Ramp, Sign, and Trail Annotation	Continuous
C-SITE-GATE	Gates along Fences or other Barriers intended To Restrict Access	Continuous
C-SITE-GOLF	Golf Greens	Continuous
C-SITE-GOLF-PATH	Golf Pathway	Dashed
C-SITE-IDEN	Site Improvement Annotation	Continuous
C-SITE-LNDF	Landfill	FENCE2x
C-SITE-OTLN	Site Boundary Outline	Continuous
C-SITE-SECU	Security Camera Locations Outside of Buildings	Continuous
C-SITE-STRC	Miscellaneous Site Structures	Continuous
C-SITE-WALK	Walks, Trails and Bicycle Paths	Continuous

Sanitary Sewer/Wastewater (SSWR)

Layer Name	Layer Description	Line Type
C-SSWR-ABND	Abandoned Wastewater Piping	WWL
C-SSWR-DEVC	Grease Traps, Grit Chambers, Flumes, Neutralizers, Oil/Water Separators, Ejectors, and Valves	Continuous
C-SSWR-DEVC-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
C-SSWR-FILT	Filtration Beds	Continuous
C-SSWR-FILT-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
C-SSWR-FTTG	Caps and Cleanouts	Continuous
C-SSWR-FORC	Force Main	FM
C-SSWR-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
C-SSWR-INST	Sanitary Sewer: Instrumentation (meters, valves, etc.)	Continuous
C-SSWR-JBOX	Junction Boxes	Continuous
C-SSWR-JBOX-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
C-SSWR-MAIN	Sanitary Sewer (Wastewater) Piping	WWL
C-SSWR-MHOL	Sanitary Sewer (Wastewater) Manhole	Continuous
C-SSWR-NITF	Nitrification Drain Fields	Continuous
C-SSWR-PLNT	Treatment Plants	Continuous
C-SSWR-PUMP	Booster Pump Stations	Continuous
C-SSWR-SERV	Sanitary Sewer Service (Wastewater) Piping	WWL
C-SSWR-SIGN	Surface Markers/Signs	Continuous
C-SSWR-TANK	Septic Tanks	Continuous

CIVIL LAYER NAMING - cont'd

Structures (STRC)

Layer Name	Layer Description	Line Type
C-STRC-IDEN	Structure Annotation	Continuous
C-STRC-OTLN	Structure Outlines	Continuous
C-STRC-TOWR	Tower	Continuous

Solar Panel (SOLR)

Layer Name	Layer Description	Line Type
C-SOLR-PANL	Solar Panel	Continuous

Storm Sewer Drainage (STRM)

Layer Name	Layer Description	Line Type
C-STRM-ABND	Abandoned Piping	STRM
C-STRM-CHAN	Storm Water Channel	Continuous
C-STRM-CHUT	Chutes and Concrete Erosion Control Structures	Continuous
C-STRM-CULV	Culverts	Hidden2
C-STRM-DEVC	Downspouts, Flumes, Oil/Water Separators, and Flap Gates	Continuous
C-STRM-DRAN-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
C-STRM-FLOW	Flow Direction Arrows	Continuous
C-STRM-FMON	Flow Monitoring Station	Continuous
C-STRM-FTTG	Caps and Cleanouts	Continuous
C-STRM-HDWL	Headwalls and End walls	Continuous
C-STRM-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
C-STRM-INLT	Inlets (Curb, Surface, and Catch Basins)	Continuous
C-STRM-MAIN	Storm Sewer Piping	STRM
C-STRM-MHOL	Manholes	Continuous
C-STRM-POND	Detention Pond	Continuous
C-STRM-PUMP	Pump Stations	Continuous
C-STRM-RFDR	Roof Drain	Continuous
C-STRM-SERV	Storm Sewer Service Piping	STRM
C-STRM-SIGN	Surface Markers/Signs	Continuous
C-STRM-STRC	Storm Drainage, Headwalls, Inlets, Manholes, Culverts, and Drainage Structures	Continuous
C-STRM-SUBS	Subsurface Drain Piping	STRM

CIVIL LAYER NAMING - cont'd

Taxiway (TAXI)

Layer Name	Layer Description	Line Type
C-TAXI-CNTR	Taxiway Centerline	Continuous
C-TAXI-CNTR-MARK	Taxiway Centerline Markings	Continuous
C-TAXI-EDGE	Edge Markings	Continuous
C-TAXI-HOLD	Holding Lines	Continuous
C-TAXI-IDEN	Annotation	Continuous
C-TAXI-INTS	Taxiway Intersections	Continuous
C-TAXI-JOIN	Taxiway Joints	Continuous
C-TAXI-OTLN	Taxiway - Outlines	Continuous
C-TAXI-SHLD	Shoulder Stripe Markings	Continuous
C-TAXI-SIGN	Taxiway Signs	Continuous

Topography (TOPO)

Layer Name	Layer Description	Line Type
C-TOPO-AUCO	Noise Complaint	Continuous
C-TOPO-AUST	Noise Monitoring Station	Continuous
C-TOPO-AUZN	Noise Contour/Zone	Continuous
C-TOPO-BKLN	Break lines	Hidden2
C-TOPO-BORE	Boring Locations	Continuous
C-TOPO-BORE -IDEN	Boring Location Identification	Continuous
C-TOPO-BORE -PATT	Boring Pattern, Hatching	Continuous
C-TOPO-COOR	Coordinate Grid Ticks and Text	Continuous
C-TOPO-DTMP	DTM Points	Continuous
C-TOPO-DTCH-CNTR	Ditch Centerline	Divide
C-TOPO-DTMT	DTM Triangles	Continuous
C-TOPO-FLZN	Flood Zone / Flood Plain	Dashed
C-TOPO-MAJR	Major Contours	Dashed
C-TOPO-MAJR-IDEN	Major Contours - Annotation	Continuous
C-TOPO-MINR	Minor Contours	Dashed
C-TOPO-MINR-IDEN	Minor Contours - Annotation	Continuous
C-TOPO-MINR-ONEF	Minor Contours (One Foot Contours)	Dashed
C-TOPO-MINR-TWOF	Minor Contours (Two Foot Contours)	Dashed
C-TOPO-RNYE	Runway Centerline Elevation Point	Continuous
C-TOPO-RTWL	Retaining Wall	Continuous
C-TOPO-SLTP	Top/Toe Slopes	Hidden
C-TOPO-SPOT	Spot Elevations	Continuous

CIVIL LAYER NAMING - cont'd

Traffic (TRAF)

Layer Name	Layer Description	Line Type
C-TRAF-CTRL	Traffic Control	Continuous
C-TRAF-FLOW	Traffic Flow – Directional Arrows	Continuous
C-TRAF-NOTE	Traffic Control Notes	Continuous
C-TRAF-SYMB	Traffic Control Symbols (Blocks)	Continuous
C-TRAF-TEXT	Traffic Control Text	Continuous

Water (WATR)

Layer Name	Layer Description	Line Type
C-WATR-ABND	Abandoned Piping	WATERL
C-WATR-DEVC	Connectors, Faucets, Reducers, Regulators, Vents, Tanks, Taps, Backflow Preventers, and Valves	Continuous
C-WATR-FIRE	Fire Lines	FIRE
C-WATR-FTTG	Caps, Cleanouts, Crosses, and Tees	Continuous
C-WATR-HYDR	Hydrants	Continuous
C-WATR-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
C-WATR-INST	Water supply: Instrumentation (meters, valves, etc.)	Continuous
C-WATR-MAIN	Main Domestic Water Piping	WATERL
C-WATR-METR	Meters	Continuous
C-WATR-MHOL	Manhole/Hand hole	Continuous
C-WATR-NHYD	Non-Potable Hydrants/Flushing Hydrants	Continuous
C-WATR-NPOT	Non-Potable Water Piping	NONPOT
C-WATR-PUMP	Booster Pump Stations	Continuous
C-WATR-REDC	Pressure Reducing Stations	Continuous
C-WATR-SERV	Domestic Water Service Piping	WATERL
C-WATR-SIGN	Surface Markers/Signs	Continuous
C-WATR-TANK	Water Storage Tanks	Continuous
C-WATR-VENT	Vent Pits	Continuous
C-WATR-VLVE	Valve Pits/Vaults	Continuous

ELECTRICAL LAYER NAMING

Airfield (AIRF)

Layer Name	Layer Description	Line Type
E-AIRF-DEVC	Capacitors, Voltage Regulators, Motors, Buses, Generators, Meters, Grounds, and Markers	Continuous
E-AIRF-DUCT	Duct banks	Continuous
E-AIRF-JBOX	Junction Boxes, Pull Boxes, Manholes, Hand holes, Pedestals	Continuous
E-AIRF-VALT	Airfield Lighting Vaults	Continuous

Cable System (CABL)

Layer Name	Layer Description	Line Type
E-CABL-COAX	Coax Cable	Continuous
E-CABL-FIBR	Fiber Optics Cable	FIBOPT
E-CABL-FIBR-OVHD	Fiber Optics - Overhead	FO_OH
E-CABL-FIBR-UNDR	Fiber Optics Cable - Underground	FO_UG
E-CABL-IDEN	Cable Identifiers	Continuous
E-CABL-MULT	Multi-Conductor Cable	Continuous
E-CABL-TRAY	Cable Trays and Wire ways	Continuous

Cathodic Protection System (CATH)

Layer Name	Layer Description	Line Type
E-CATH-ANOD	Sacrificial Anode System	Continuous
E-CATH-CURR	Impress Current System	Continuous
E-CATH-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
E-CATH-TEST	Test Stations	Continuous

Circuits (CIRC)

Layer Name	Layer Description	Line Type
E-CIRC-CTRL	Control and Monitoring Circuits	Hidden
E-CIRC-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
E-CIRC-MULT	Multiple Circuits	Hidden
E-CIRC-SERS	Series Circuits	Hidden

Clock (CLOK)

Layer Name	Layer Description	Line Type
E-CLOK-EQPM	Clock Equipment	Continuous

ELECTRICAL LAYER NAMING - cont'd

Communications (COMM)

Layer Name	Layer Description	Line Type
E-COMM-EQPM	Other Communications Distribution Equipment	Continuous
E-COMM-JBOX	Junction Boxes, Pull Boxes, Hand holes, Pedestals	Continuous
E-COMM-MHOL	Communication Manholes	Continuous
E-COMM-OVHD	Overhead Communications/Telephone Lines	C_OH
E-COMM-OVHD-IDEN	Identifier Tags, Symbol Modifier and Text	Continuous
E-COMM-UNDR	Underground Communications/Telephone Lines	C_UG
E-COMM-UNDR-IDEN	Identifier Tags, Symbol Modifier and Text	Continuous
E-COMM-VALT	Communications Vault	Continuous

Control (CONT)

Layer Name	Layer Description	Line Type
E-CONT-DEVC	Control Devices	Continuous

Underground Duct Bank (DUCT)

Layer Name	Layer Description	Line Type
E-DUCT-MULT	Duct bank	Continuous
E-DUCT-MULT-IDEN	Identifier Tags, Symbol Modifier and Text	Continuous

Electric Support Equipment (ELEC)

Layer Name	Layer Description	Line Type
E-ELEC-DEVC	Capacitors, Voltage Regulators, Motors, Buses, Generators, Meters, Grounds, and Markers	Continuous
E-ELEC-JBOX	Junction Boxes, Pull Boxes, Manholes, Hand holes, Pedestals, Splices	Continuous
E-ELEC-SUBS	Other Substation Equipment	Continuous
E-ELEC-SWCH	Fuse Cutouts, Pole Mounted Switches, Circuit Breakers, Gang Operated Disconnects, Reclosers, Cubicle Switches	Continuous
E-ELEC-VALT	Vaults	Continuous

Ground System (GRND)

Layer Name	Layer Description	Line Type
E-GRND-CIRC	Circuits	Hidden2
E-GRND-EQUI	Equipotential Ground System	Continuous
E-GRND-REFR	Reference Ground System	Continuous

ELECTRICAL LAYER NAMING - cont'd

Lights (LITE)

Layer Name	Layer Description	Line Type
E-LITE-APPR	Approach Lights	Continuous
E-LITE-APRN	Apron Lighting	Continuous
E-LITE-CIRC	Lighting Circuits	Hidden
E-LITE-CIRC-NUMB	Lighting Circuit Numbers (e.g., Panel/Circuit Number, Wire/Conduit Size)	Continuous
E-LITE-CLNG	Ceiling Mounted (Surface/Pendant) Fixtures	Continuous
E-LITE-DIST	Distance and Arresting Gear Markers and Lights	Continuous
E-LITE-EMER	Emergency Fixtures	Continuous
E-LITE-EXIT	Exit Fixtures	Continuous
E-LITE-EXTR	Exterior Lights	Continuous
E-LITE-EXTR-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
E-LITE-IDEN	Light Fixture Identifier Tags	Continuous
E-LITE-JBOX	Junction Boxes	Continuous
E-LITE-LANE	Hover lane, Taxi lane, and Helipad Lights	Continuous
E-LITE-OBST	Obstruction Lights	Continuous
E-LITE-PANL	Main Distribution Panels, Switchboards, Lighting Panels	Continuous
E-LITE-RUNW-CNTL	Runway Centerline Lights	Center2
E-LITE-RUNW-DTGS	Runway Distance To Go Lights	Continuous
E-LITE-RUNW-EDGE	Runway Edge Lights	Continuous
E-LITE-RNWY-GARD	Runway Guard Lights	Continuous
E-LITE-RUNW-TDZN	Runway Touchdown Zone Lights	Continuous
E-LITE-SIGN	Taxiway Guidance Signs	Continuous
E-LITE-SPCL	Special Fixtures	Continuous
E-LITE-SWCH	Lighting Contactors, Photoelectric Controls, Low-Voltage Lighting Controls, Etc.	Continuous
E-LITE-TAXI-CNTL	Taxiway Centerline Lights	Center2
E-LITE-TAXI-EDGE	Taxiway Edge Lights	Continuous
E-LITE-TAXI-INTS	Taxiway Intersection Lights	Continuous
E-LITE-THRS	Threshold Lights	Continuous
E-LITE-WALL	Wall Mounted Fixtures	Continuous

Utility Poles (POLE)

Layer Name	Layer Description	Line Type
E-POLE-GUYS	Guying Equipment	Continuous
E-POLE-IDEN	Utility Pole Identifier Tags, Symbol Modifier, and Text	Continuous
E-POLE-UTIL	Utility Poles	Continuous

ELECTRICAL LAYER NAMING - cont'd

Power (POWR)

Layer Name	Layer Description	Line Type
E-POWR-BUSW	Busways and Wire ways	Continuous
E-POWR-CABL	Cable Trays	Continuous
E-POWR-CIRC	Power Circuits (Including Crosslines and Homeruns)	Hidden2
E-POWR-CIRC-NUMB	Power Circuit Numbers (e.g., Panel/Circuit Number, Wire/Conduit Size)	Continuous
E-POWR-CLNG	Ceiling Outlets (Receptacles and Switches)	Continuous
E-POWR-DEVC	Miscellaneous Power Devices	Continuous
E-POWR-EQPM	Miscellaneous Power Equipment	Continuous
E-POWR-FEED	Feeder	Continuous
E-POWR-GENR	Generators and Auxiliary Equipment	Continuous
E-POWR-INST	Power: Instrumentation (meters, valves, etc.)	Continuous
E-POWR-JBOX	Junction Boxes	Continuous
E-POWR-MOTR	Motors and Utilization Equipment	Continuous
E-POWR-PANL	Panelboards, Switchboards, MCC, Unit Substations	Continuous
E-POWR-SWCH	Disconnect Switches, Motor Starters, Contactors, Etc.	Continuous
E-POWR-URAC	Underfloor Raceways	Hidden2
E-POWR-WALL	Wall/Floor Outlets (Receptacles and Switches)	Continuous

Primary Electrical Cables (PRIM)

Layer Name	Layer Description	Line Type
E-PRIM-OVHD	Overhead Electrical Utility Lines	E_OH
E-PRIM-OVHD-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
E-PRIM-UNDR	Underground Electrical Utility Lines	E_UG
E-PRIM-UNDR-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous

Secondary Electrical Cables (SECD)

Layer Name	Layer Description	Line Type
E-SECD-OVHD	Overhead Electrical Utility Lines	E_OH
E-SECD-OVHD-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
E-SECD-UNDR	Underground Electrical Utility Lines	E_UG
E-SECD-UNDR-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous

ELECTRICAL LAYER NAMING - cont'd

Security Systems (SERT)

Layer Name	Layer Description	Line Type
E-SERT-BURD	Buried Sensors	Continuous
E-SERT-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
E-SERT-UNDR	Buried Sensors	Continuous

Special Systems (SPCL)

Layer Name	Layer Description	Line Type
E-SPCL-IDEN	Special Systems (e.g., UMCS, EMCS, CATV, Etc.) Identifier Tags, Symbol Modifier, and Text	Continuous
E-SPCL-JBOX	Junction Boxes	Continuous
E-SPCL-PANL	Panel boards, Backing Boards, Patch Panel Racks	Continuous
E-SPCL-SRFS	Surface Sensor System	Continuous
E-SPCL-SYST-	Special Systems (e.g., UMCS, EMCS, CATV, CCTV, Alarms, Bell, Etc.)	CATV / CCTV / FALARM
E-SPCL-TRAF	Traffic Signal System	Continuous
E-SPCL-TRAF-IDEN	Traffic Signal Identifier Tags, Symbol Modifier, and Text	Continuous

Transformers (TRAN)

Layer Name	Layer Description	Line Type
E-TRAN-PADM	Pad Mounted Transformers	Continuous
E-TRAN-PADM-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
E-TRAN-POLE	Pole Mounted Transformers	Continuous
E-TRAN-POLE-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous

FIRE PROTECTION LAYER NAMING

Aqueous Film Forming Foam System (AFFF)

Layer Name	Layer Description	Line Type
F-AFFF-EQPM	Equipment	Continuous
F-AFFF-PIPE	Piping	Hidden2

Fire Alarm / Detection Equipment (ALRM)

Layer Name	Layer Description	Line Type
F-ALRM-DEVC	Fire Alarm Devices	Continuous
F-ALRM-INDC	Indicating Appliances	Continuous
F-ALRM-LINE	Fire Alarm Line	FALARM
F-ALRM-MANL	Manual Fire Alarm Pull Stations	Continuous
F-ALRM-PHON	Fire Service Or Emergency Telephone Stations	Continuous

CO2 Sprinkler System (CO2S)

Layer Name	Layer Description	Line Type
F-CO2S-EQPM	Equipment	Continuous
F-CO2S-PIPE	CO2 Piping Or CO2 Discharge Nozzle Piping	Hidden2

Control Panels (CNTL)

Layer Name	Layer Description	Line Type
F-CTRL-PANL	Control Panels	Continuous

Halon System (HALN)

Layer Name	Layer Description	Line Type
F-HALN-EQPM	Halon Equipment	Continuous
F-HALN-PIPE	Halon Piping	Hidden2

Inert Gas (IGAS)

Layer Name	Layer Description	Line Type
F-IGAS-EQPM	Inert Gas Equipment	Continuous
F-IGAS-PIPE	Inert Gas Piping	Hidden2

Lights (LITE)

Layer Name	Layer Description	Line Type
F-LITE-EMER	Emergency Fixtures	Continuous
F-LITE-EXIT	Exit Fixtures	Continuous

FIRE PROTECTION LAYER NAMING - cont'd

Life Safety (LSFT)

Layer Name	Layer Description	Line Type
F-LSFT-EGRE	Egress Requirements Designator	Continuous
F-LSFT-OCCP	Occupant Load For Egress Capacity	Continuous

Fire Protection / Suppression Equipment (PROT)

Layer Name	Layer Description	Line Type
F-PROT-ALRM	Fire Alarm	Continuous
F-PROT-EXTI	Fire Extinguishers	Continuous
F-PROT-EQPM	Fire Equipment	Continuous
F-PROT-HOSE	Fire Hoses and Fire Hose/ Extinguisher Cabinets	Continuous

Sprinkler System (SPKL)

Layer Name	Layer Description	Line Type
F-SPKL-PIPE	Sprinkler Piping	SPRINK
F-SPKL-SYMB	Sprinkler Symbols (Blocks)	Continuous

Water Supply and Distribution (WATR)

Layer Name	Layer Description	Line Type
F-WATR-CONN	Fire Department Connections	Continuous
F-WATR-HYDR	Hydrants	Continuous
F-WATR-PIPE	Fire Line/Fire Water Piping	FIRE
F-WATR-PUMP	Fire Pumps	Continuous

GENERAL LAYER NAMING

General Annotation (ANNO)

*Insert Discipline Code/ **Insert BOLD, MEDM OR FINE for text weights

Layer Name	Layer Description	Line Type
*-ANNO-DIMS	Dimension Lines , Texts and Arrows	Continuous
*-ANNO-KEYM	Key Map	Continuous
*-ANNO-KEYN	Reference Keynotes/Text with Associated Leaders	Continuous
*-ANNO-LABL	Drawing Labels	Continuous
*-ANNO-LEGN	Legend and Schedule	Continuous
*-ANNO-MTCH	Match lines	Phantom
*-ANNO-NOTE	General Notes	Continuous
*-ANNO-NPLT	Non-Plotting Graphic Information	Continuous
*-ANNO-REDL	Redlines	Continuous
*-ANNO-REFR	Reference File	Continuous
*-ANNO-REVS	Revisions	Continuous
*-ANNO-SYMB	Miscellaneous Symbols	Continuous
*-ANNO-TEXT -**	Misc. Text/Call-Outs with Associated Leaders	Continuous
*-ANNO-TITL	Drawing or Detail Titles	Continuous
*-ANNO-TTBL	Title Block	Continuous
*-ANNO-VIEW	Paper space Viewport	Continuous

Grid Lines (GRID)

Layer Name	Layer Description	Line Type
G-GRID-EXTR	Column Grid Outside Building	Center
G-GRID-IDEN	Column Grid Tags	Continuous
G-GRID-LINE	Grid Lines - Miscellaneous	Continuous/Center

HAZARDOUS MATERIAL LAYER NAMING

Buildings and Other Structures (BLDG)

Layer Name	Layer Description	Line Type
H-BLDG-OTLN	Command Post, Information Center	Continuous

Decontamination (DECN)

Layer Name	Layer Description	Line Type
H-DECN-EQPM	Decontamination Equipment	Continuous
H-DECN-IDEN	Annotation	Continuous

Disposal Area (DISP)

Layer Name	Layer Description	Line Type
H-DISP-IDEN	Annotation	Continuous
H-DISP-TANK	Spill Containment Tanks	Continuous

Emergency Fixtures (FIXT)

Layer Name	Layer Description	Line Type
H-FIXT-EYEW	Emergency Eyewashes	Continuous
H-FIXT-SHOW	Emergency Showers	Continuous

Monitoring Station (MNST)

Layer Name	Layer Description	Line Type
H-MNST-AIRS	Air Monitoring Station	Continuous
H-MNST-GWTR	Ground Water Monitoring Station	Continuous
H-MNST-IDEN	Monitoring Station Annotation	Continuous
H-MNST-NGAS	Natural Gas Monitoring Station	Continuous
H-MNST-SWTR	Surface Water Monitoring Station	Continuous

Pollution Area (POLL)

Layer Name	Layer Description	Line Type
H-POLL-CONC	Polluted Area Of Concern	Continuous
H-POLL-IDEN	Annotation	Continuous
H-POLL-ORIG	Point Of Pollution Origin	Continuous
H-POLL-POTN	Potential Spill, Emission, Or Release Source	Continuous

HAZARDOUS MATERIAL LAYER NAMING - cont'd

Sample Points (SAMP)

Layer Name	Layer Description	Line Type
H-SAMP-AIRS	Air Samples	Continuous
H-SAMP-BIOL	Biological Samples	Continuous
H-SAMP-GWTR	Ground Water Samples	Continuous
H-SAMP-IDEN	Annotation	Continuous
H-SAMP-SEDI	Sediment Samples	Continuous
H-SAMP-SOIL	Soil Samples	Continuous
H-SAMP-SOLI	Solid Material Samples	Continuous
H-SAMP-SWTR	Surface Water Samples	Continuous
H-SAMP-WAST	Waste Samples	Continuous

Storage Facilities (STOR)

Layer Name	Layer Description	Line Type
H-STOR-HAZM	Hazardous Materials	Continuous
H-STOR-HAZW	Hazardous Waste	Continuous
H-STOR-IDEN	Annotation	Continuous

LANDSCAPE LAYER NAMING

Detail (DETL)

Layer Name	Layer Description	Line Type
L-DETL-CONC	Concrete	Continuous
L-DETL-ERTH	Earth	Continuous
L-DETL-FENC	Fencing	FENCE
L-DETL-FURN	Furniture, Furnishings	Continuous
L-DETL-GATE	Gate	Continuous
L-DETL-GENF	General Features (Miscellaneous Items)	Continuous
L-DETL-GRAS	Grass, Sod	Continuous
L-DETL-STRC	Structural Metal, Supports	Continuous
L-DETL-TKST	Tank Site	Continuous
L-DETL-VLVE	Valve Fitting	Continuous
L-DETL-WIRE	Wiring	Hidden2

Irrigation System (IRRG)

Layer Name	Layer Description	Line Type
L-IRRG-COVR	Irrigation Coverage, Spray Distribution Patterns	Continuous
L-IRRG-EQPM	Equipment (e.g., Controllers, Valves, Etc.)	Continuous
L-IRRG-HEAD	Irrigation Heads, Bubblers, and Drip Irrigation Emitters	Continuous
L-IRRG-IDEN	Annotation	Continuous
L-IRRG-PIPE	Piping	Hidden2
L-IRRG-SPKL	Sprinklers	Continuous
L-IRRG-VLVE	Irrigation Valve	Continuous

LANDSCAPE LAYER NAMING - cont'd

Plants (PLNT)

Layer Name	Layer Description	Line Type
L-PLNT-BEDS	Planting Beds	Continuous
L-PLNT-BUSH	Bushes and Shrubs (e.g., Evergreen, Deciduous)	Continuous
L-PLNT-BUSH-LINE	Bush and Shrub Line	Continuous
L-PLNT-CTNR	Containers Or Planters	Continuous
L-PLNT-GRND	Groundcover and Vines	Continuous
L-PLNT-IDEN	Annotation	Continuous
L-PLNT-MLCH	Mulches - Organic and Inorganic	Continuous
L-PLNT-PLTS	Planting Plants (e.g., Ornamental Annuals and Perennials)	Continuous
L-PLNT-SHAD	Shadow Areas	Continuous
L-PLNT-SPRG	Sprigs	Continuous
L-PLNT-TREE	Trees	Continuous
L-PLNT-TREE-LINE	Tree Line	Continuous
L-PLNT-TURF	Lawn Areas (Turf Limits)	Continuous

Site (SITE)

Layer Name	Layer Description	Line Type
L-SITE-BRDG	Bridges	Continuous
L-SITE-DECK	Deck	FENCE
L-SITE-FENC	Fencing	FENCE
L-SITE-GATE	Gate	Continuous
L-SITE-IDEN	Annotation	Continuous
L-SITE-POOL	Pools and Spas	Continuous
L-SITE-ROCK	Rocks, Boulders or Cobblestones	Continuous
L-SITE-TUNL	Tunnels	Continuous
L-SITE-WALK	Walks and Steps	Continuous

MECHANICAL LAYER NAMING

Industrial Waste Piping (ACID)

Layer Name	Layer Description	Line Type
M-ACID-EQPM	Acid, Alkaline, and Oil Waste Equipment	Continuous
M-ACID-PIPE	Acid, Alkaline, and Oil Waste Piping	ACIDWS
M-ACID-VENT	Acid, Alkaline, and Oil Waste Vent Piping	Continuous

Anti-Freeze (AFRZ)

Layer Name	Layer Description	Line Type
M-AFRZ-PIPE	Anti-Freeze Piping	Hidden
M-AFRZ-WAST	Waste Anti-Freeze Piping	Continuous

Brine System (BRIN)

Layer Name	Layer Description	Line Type
M-BRIN-EQPM	Brine System Equipment	Continuous
M-BRIN-PIPE	Brine System Piping	BRINES

Chemical Treatment System (CHEM)

Layer Name	Layer Description	Line Type
M-CHEM-EQPM	Equipment	Continuous
M-CHEM-PIPE	Piping (Includes Fittings, Valves)	Hidden2

Condenser Water System (CNDW)

Layer Name	Layer Description	Line Type
M-CNDW-EQPM	Condenser Water Equipment	Continuous
M-CNDW-PIPE	Condenser Water Piping	CNDW

Condensate (COND)

Layer Name	Layer Description	Line Type
M-COND-PIPE	Condensate Piping (Includes Fittings, Valves)	COND

Controls (CONT)

Layer Name	Layer Description	Line Type
M-CONT-THER	Thermostats, Controls, Instrumentation, and Sensors	Continuous
M-CONT-WIRE	Low Voltage Wiring	Hidden

MECHANICAL LAYER NAMING - cont'd

Chilled Water System (CWTR)

Layer Name	Layer Description	Line Type
M-CWTR-EQPM	Equipment	Continuous
M-CWTR-PIPE	Piping (Includes Fittings, Valves)	CLDWTR

Detail (DETL)

Layer Name	Layer Description	Line Type
M-DETL-BOIL	Boilers	Continuous
M-DETL-CABS	Cabinets	Continuous
M-DETL-COIL	Coils and Fin Tubes	Continuous
M-DETL-DUCT	Ducts	Continuous
M-DETL-EQPM	Equipment and Fixtures	Continuous
M-DETL-FANS	Fans	Continuous
M-DETL-GENF	General Features (Miscellaneous Items)	Continuous
M-DETL-PIPE	Piping	Continuous
M-DETL-PUMP	Pumps and Compressors	Continuous
M-DETL-TANK	Tanks	Continuous
M-DETL-TRAP	Traps and Drains	Continuous
M-DETL-VENT	Vents	Continuous
M-DETL-VLVE	Valves and Fittings	Continuous

Dual Temperature System (DUAL)

Layer Name	Layer Description	Line Type
M-DUAL-EQPM	Equipment	Continuous
M-DUAL-PIPE	Piping (Includes Fittings, Valves)	Dashed

Dust and Fume Collection Systems (DUST)

Layer Name	Layer Description	Line Type
M-DUST-DUCT	Dust and Fume Ductwork	Continuous
M-DUST-EQPM	Dust and Fume Collection Equipment	Continuous

Elevations (ELEV)

Layer Name	Layer Description	Line Type
M-ELEV-FIXT	Miscellaneous Fixtures	Continuous
M-ELEV-IDEN	Component Identification Numbers	Continuous
M-ELEV-OTLN	Building Outlines	Continuous

MECHANICAL LAYER NAMING - cont'd

Exhaust (EXHS)

Layer Name	Layer Description	Line Type
M-EXHS-CDFF	Exhaust Air Ceiling Registers and Grilles	Continuous
M-EXHS-DUCT	Exhaust Ductwork	Continuous
M-EXHS-EQPM	Equipment	Continuous

Geothermal Heat Pump System (GTHP)

Layer Name	Layer Description	Line Type
M-GTHP-EQPM	Equipment	Continuous
M-GTHP-PIPE	Piping (Includes Fittings, Valves)	Continuous

HTCW Utilities (HTCW)

Layer Name	Layer Description	Line Type
M-HTCW-ABND	Abandoned Piping	Continuous
M-HTCW-CHLL	Main Chilled Water Piping	CHWTRL
M-HTCW-CHLP	Chilled Water Plant	Continuous
M-HTCW-CHLS	Chilled Water Service Piping	CHWTRL
M-HTCW-DEVC	Rigid Anchors, Anchor Guides, Rectifiers, Reducers, Markers, Meters, Pumps, Regulators, Tanks, and Valves	Continuous
M-HTCW-FLOW	Flow Direction Arrows	Continuous
M-HTCW-FTTG	Caps and Flanges Fittings	Continuous
M-HTCW-HTPL	Main High Temperature Piping	Continuous
M-HTCW-HTPP	High Temperature Water Plant	Continuous
M-HTCW-HTPS	High Temperature Service Piping	Continuous
M-HTCW-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
M-HTCW-JBOX	Junction Boxes, Manholes, Hand holes, Test Boxes	Continuous
M-HTCW-LTPL	Main Low Temperature Piping	Continuous
M-HTCW-LTPS	Low Temperature Service Piping	Continuous
M-HTCW-PITS	Valve Pits/Vaults, Steam Pits	Continuous
M-HTCW-PLNT-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
M-HTCW-PUMP	Pump Stations	Continuous
M-HTCW-RTRN	Return For All HTCW Lines	Continuous
M-HTCW-STML	Main Steam Piping	STEAM
M-HTCW-STMS	Steam Service Piping	STEAM
M-HTCW-STNS-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous

MECHANICAL LAYER NAMING - cont'd

Heating, Ventilation and Air Conditioning (HVAC)

Layer Name	Layer Description	Line Type
M-HVAC-ACCS	Equipment Access Doors	Continuous
M-HVAC-CDFF	Ceiling Diffusers, Registers, and Grilles	Continuous
M-HVAC-DMPR	Damper Controls	Continuous
M-HVAC-EQPM	Air System Equipment	Continuous
M-HVAC-FDFF	Floor Diffusers, Registers, and Grilles	Continuous
M-HVAC-PIPE	HVAC Piping and Piping Instrumentation	Continuous
M-HVAC-RETN	Return Ductwork	Continuous
M-HVAC-ROOF	Roof Mounted HVAC Equipment	Continuous
M-HVAC-SUPP	Supply Ductwork	Continuous
M-HVAC-TAGS	Diffuser/Register/Grille Tags and Air Flow Arrows	Continuous
M-HVAC-WDFF	Wall Diffusers, Registers, and Grilles	Continuous

Hot Water Heating System (HWTR)

Layer Name	Layer Description	Line Type
M-HWTR-EQPM	Equipment	Continuous
M-HWTR-PIPE	Piping (Includes Fittings, Valves)	HWTR

Hydraulic (HYDR)

Layer Name	Layer Description	Line Type
M-HYDR-EQPM	Hydraulic System Equipment	Continuous
M-HYDR-PIPE	Hydraulic System Piping	Continuous

Insulating (Transformer) Oil (INSL)

Layer Name	Layer Description	Line Type
M-INSL-EQPM	Insulating Oil Equipment	Continuous
M-INSL-PIPE	Insulating Oil Piping	Continuous

Lubrication Oil (LUBE)

Layer Name	Layer Description	Line Type
M-LUBE-EQPM	Lubrication Oil Equipment	Continuous
M-LUBE-PIPE	Lubrication Oil Piping	Continuous

MECHANICAL LAYER NAMING - cont'd

Machine Design (MACH)

Layer Name	Layer Description	Line Type
M-MACH-BASE	Machinery Bases	Continuous

Material Handling (MATL)

Layer Name	Layer Description	Line Type
M-MATL-CRAN	Bridge Cranes, Jib Cranes, and Monorails	Continuous

Process Piping (PROC)

Layer Name	Layer Description	Line Type
M-PROC-EQPM	Equipment	Continuous
M-PROC-PIPE	Process Piping	Continuous

Energy Recovery System (RCOV)

Layer Name	Layer Description	Line Type
M-RCOV-EQPM	Equipment	Continuous
M-RCOV-PIPE	Piping (Includes Fittings, Valves)	Continuous

Refrigeration System (REFG)

Layer Name	Layer Description	Line Type
M-REFG-EQPM	Equipment	Continuous
M-REFG-PIPE	Piping (Includes Fittings, Valves)	REFRD

Raw Water Piping (RWTR)

Layer Name	Layer Description	Line Type
M-RWTR-EQPM	Raw Water Equipment	Continuous
M-RWTR-PIPE	Raw Water Piping	Continuous

STEAM (STEM)

Layer Name	Layer Description	Line Type
M-STEM-EQPM	Equipment	Continuous
M-STEM-PIPE	Steam Piping	STEAM

PLUMBING LAYER NAMING

Compressed Air (CMPA)

Layer Name	Layer Description	Line Type
P-CMPA-EQPM	Equipment	Continuous
P-CMPA-PIPE	Piping	CMPAIR

Liquid Fuel (FUEL)

Layer Name	Layer Description	Line Type
P-FUEL-EQPM	Equipment	Continuous
P-FUEL-FGAS	Fuel Gas Piping	FGAS
P-FUEL-FOIL	Fuel Oil Piping	FUELOF
P-FUEL-NGAS	Natural Gas Piping	NGAS

Sanitary Drainage Piping (SANR)

Layer Name	Layer Description	Line Type
P-SANR-COND	Condensate Piping	Continuous
P-SANR-EQPM	Equipment (e.g., Sand/Oil/Water Separators)	Continuous
P-SANR-FIXT	Plumbing Fixtures	Continuous
P-SANR-FLDR	Floor Drains, Sinks, and Cleanouts	Continuous
P-SANR-PIPE	Piping	Continuous
P-SANR-RISR	Sanitary Risers	Continuous
P-SANR-VENT	Vent Piping	Continuous

Storm Sewer (STRM)

Layer Name	Layer Description	Line Type
P-STRM-PIPE	Storm Drain Piping	STRM
P-STRM-RFDR	Roof Drains	Continuous

STRUCTURAL LAYER NAMING

Beam (BEAM)

Layer Name	Layer Description	Line Type
S-BEAM-CNTR	Beam Centerlines	Center
S-BEAM-PRIM	Primary Beams, Girders	Continuous
S-BEAM-SECD	Secondary Beams, Girders	Continuous

Bracing (BRAC)

Layer Name	Layer Description	Line Type
S-BRAC-LATL	Lateral Bracing	Continuous
S-BRAC-VERT	Vertical Bracing	Continuous

Columns (COLS)

Layer Name	Layer Description	Line Type
S-COLS-CNTR	Column Centerlines/Working Lines	Center
S-COLS-MISC	Miscellaneous Columns	Continuous
S-COLS-MSC1	Miscellaneous Columns (Type 1)	Continuous
S-COLS-PRIM	Primary Columns	Continuous

Deck (DECK)

Layer Name	Layer Description	Line Type
S-DECK-FLOR	Floor Deck	Continuous
S-DECK-ROOF	Roof Deck	Continuous

Foundation (FNDN)

Layer Name	Layer Description	Line Type
S-FNDN-CNTR	Beam Centerlines	Center
S-FNDN-FTNG	Footings	Continuous
S-FNDN-GRBM	Grade Beams	Hidden
S-FNDN-PILE	Piles (Steel Sheet, Concrete, Wood), Piers, Caisson Piers, Drilled Piers	Continuous
S-FNDN-RBAR	Foundation Reinforcing	Continuous

STRUCTURAL LAYER NAMING - cont'd

Grating (GRAT)

Layer Name	Layer Description	Line Type
S-GRAT-ELEV	Elevated Grating (Catwalks)	Continuous
S-GRAT-FLOR	Floor Grating	Continuous
S-GRAT-SUBS	Subsurface Grating	Continuous

Grid Lines (GRID)

Layer Name	Layer Description	Line Type
S-GRID-EXTR	Exterior Column Grid	Continuous
S-GRID-HORZ	Grid Lines (Horizontal)	Center
S-GRID-IDEN	Column Grid I.D. Tags	Continuous
S-GRID-INTR	Interior Column Grid	Continuous
S-GRID-MISC	Miscellaneous Grid Lines	Continuous
S-GRID-MSC1	Miscellaneous Grid Lines (Type 1)	Continuous
S-GRID-VERT	Grid Lines (Vertical)	Center

Joints (JOIN)

Layer Name	Layer Description	Line Type
S-JOIN-CNST	Construction Joints	Continuous
S-JOIN-CTRL	Control/Expansion Joints	Continuous

Joists (JOIS)

Layer Name	Layer Description	Line Type
S-JOIS-BRDG	Bridging	Continuous
S-JOIS-PRIM	Primary Joists	Continuous
S-JOIS-SECD	Secondary Joists	Continuous

Reinforcing (REIN)

Layer Name	Layer Description	Line Type
S-REIN-RBAR	Rebar, Welded Wire Mesh	Continuous

Safety Barriers (SAFE)

Layer Name	Layer Description	Line Type
S-SAFE-FENC	Fencing	FENCE
S-SAFE-HRAL	Handrails	Continuous

TELECOMMUNICATION LAYER NAMING

Slabs (SLAB)

Layer Name	Layer Description	Line Type
S-SLAB-EDGE	Edge Of Slab	Continuous
S-SLAB-JOIN	Slab Control Joints	Continuous
S-SLAB-OPEN	Openings and Penetrations	Continuous
S-SLAB-RBAR	Slab Reinforcing	Continuous

Miscellaneous Supports (SPPT)

Layer Name	Layer Description	Line Type
S-SPPT-MISC	Miscellaneous Fasteners, Anchor Bolts, Supports	Continuous
S-SPPT-SHPS	Miscellaneous Shapes, Plates	Continuous

Stairs and Elevators (STRS)

Layer Name	Layer Description	Line Type
S-STRS-FRAM	Stair/Elevator Framing	Continuous
S-STRS-LADD	Ladders, Ladder Handrails, Safety Guard, Grab Bars	Continuous

Trusses (TRUS)

Layer Name	Layer Description	Line Type
S-TRUS-PRIM	Primary Trusses	Continuous
S-TRUS-SECD	Secondary Trusses	Continuous

Walls (WALL)

Layer Name	Layer Description	Line Type
S-WALL-CONC	Concrete Walls	Continuous
S-WALL-LOAD	Load Bearing CMU Walls	Continuous
S-WALL-NONL	Non-Load Bearing CMU Walls	Continuous
S-WALL-OPEN	Openings and Penetrations	Continuous
S-WALL-OTLN	Wall Outline	Continuous
S-WALL-RBAR	Wall Reinforcing	Continuous
S-WALL-STUD	Stud Walls	Continuous

TELECOMMUNICATION LAYER NAMING - cont'd

Cable System (CABL)

Layer Name	Layer Description	Line Type
T-CABL-COAX	Coax Cable	Continuous
T-CABL-FIBR-	Fiber Optics Cable (Underground or Overhead)	FIBOPT
T-CABL-FIBR-OVHD	Fiber Optics Cable - Overhead	FO_OH
T-CABL-FIBR-UNDR	Fiber Optics Cable - Underground	FO_UG
T-CABL-IDEN	Cable Identifiers	Continuous
T-CABL-MULT	Multi-Conductor Cable	Continuous
T-CABL-TRAY	Cable Trays and Wire ways	Continuous

Clock System (CLOK)

Layer Name	Layer Description	Line Type
T-CLOK-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
T-CLOK-SYST	Clock System Symbols	Continuous

Communication (COMM)

Layer Name	Layer Description	Line Type
T-COMM-ANTN	Telecommunications Antenna	Continuous
T-COMM-APSY	Audio Paging System	Continuous
T-COMM-ATMS	Advanced Traffic Management System	Continuous
T-COMM-AVID	Automatic Vehicle Identification System	Continuous
T-COMM-BIDS	Baggage Information Display System	Continuous
T-COMM-EQPM	Communication equipment, i.e. Pay Phone	Continuous
T-COMM-FIDS	Flight Information Display System	Continuous
T-COMM-GISY	Gate Information System	Continuous
T-COMM-JBOX	Junction Boxes	Continuous
T-COMM-PMRC	Parking Management and Revenue Control	Continuous
T-COMM-VALT	Communication Vault	Continuous
T-COMM-VPSY	Visual Paging System	Continuous

Control (CNTL)

Layer Name	Layer Description	Line Type
T-CNTL-PANL	Control Panel	Continuous

SURVEYING/MAPPING LAYER NAMING

Equipment (EQPM)

Layer Name	Layer Description	Line Type
T-EQPM-COPP	Distribution Equipment For Copper	Continuous
T-EQPM-FIBR	Distribution Equipment For Fiber Optic	Continuous
T-EQPM-OTHR	Other Telecommunications Equipment	Continuous

Jacks (JACK)

Layer Name	Layer Description	Line Type
T-JACK-COMB	Combination Telephone and Data/LAN Jacks	Continuous
T-JACK-DATA	Data/LAN Jacks	Continuous
T-JACK-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
T-JACK-PHON	Telephone Jacks	Continuous

Security (SERT)

Layer Name	Layer Description	Line Type
T-SERT-ALRM	Security Alarm	Continuous
T-SERT-EQPM	Security Equipment	Continuous

SURVEYING/MAPPING LAYER NAMING - cont'd

Aerial Survey (AERI)

Layer Name	Layer Description	Line Type
V-AERI-BNDY	Aerial Photography Boundaries	Continuous
V-AERI-IMAG	Aerial Photo Imagery	Continuous
V-AERI-INDX	Aerial Photo Index	Continuous

Airfield (AIRF)

Layer Name	Layer Description	Line Type
V-AIRF-DEVC	Capacitors, Voltage Regulators, Motors, Buses, Generators, Meters, Grounds, and Markers	Continuous
V-AIRF-DUCT	Duct banks	Continuous
V-AIRF-JBOX	Junction Boxes, Pull Boxes, Manholes, Hand holes, Pedestals, Splices	Continuous

Alignments (ALGN)

Layer Name	Layer Description	Line Type
V-ALGN-DATA	Alignment Coordinates and Curve Data	Continuous
V-ALGN-LINE	Alignments	Continuous
V-ALGN-STAT	Alignment Stationing and Tick Marks	Continuous

Buildings (BLDG)

Layer Name	Layer Description	Line Type
V-BLDG-IDEN	Building and Other Structure Annotation	Continuous
V-BLDG-OTLN	Buildings and Other Structures	Continuous

Cathodic Protection System (CATH)

Layer Name	Layer Description	Line Type
V-CATH-ANOD	Sacrificial Anode System	Continuous
V-CATH-CURR	Impress Current System	Continuous
V-CATH-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
V-CATH-TEST	Test Stations	Continuous

Circuits (CIRC)

Layer Name	Layer Description	Line Type
V-CIRC-CTRL	Control and Monitoring Circuits	Hidden
V-CIRC-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
V-CIRC-MULT	Multiple Circuits	Hidden
VCIRC-SERS	Series Circuits	Hidden

SURVEYING/MAPPING LAYER NAMING - cont'd

Communications (COMM)

Layer Name	Layer Description	Line Type
V-COMM-EQPM	Other Communications Distribution Equipment	Continuous
V-COMM-JBOX	Communication Junction Boxes, Pull Boxes, Manholes, Hand holes, Pedestals, Splices	Continuous
V-COMM-OVHD	Overhead Communications/Telephone Lines	COM_OH
V-COMM-OVHD-IDEN	Identifier Tags, Symbol Modifier and Text	Continuous
V-COMM-UNDR	Underground Communications/Telephone Lines	COM_UG
V-COMM-UNDR-IDEN	Identifier Tags, Symbol Modifier and Text	Continuous
V-COMM-VALT	Communications Vault	Continuous

Underground Duct (DUCT)

Layer Name	Layer Description	Line Type
V-DUCT-MULT	Duct bank	Continuous
V-DUCT-MULT-IDEN	Identifier Tags, Symbol Modifier and Text	Continuous

Electric Support Equipment (ELEC)

Layer Name	Layer Description	Line Type
V-ELEC-DEVC	Capacitors, Voltage Regulators, Motors, Buses, Generators, Meters, Grounds, and Markers	Continuous
V-ELEC-JBOX	Junction Boxes, Pull Boxes, Hand holes, Pedestals, Splices	Continuous
V-ELEC-MHOL	Electrical Manholes	Continuous
V-ELEC-SUBS	Other Substation Equipment	Continuous
V-ELEC-SWCH	Pole Mounted Switches, Circuit Breakers, Gang Operated Disconnects, Reclosers, Cubicle Switches	Continuous
V-ELEC-VALT	Vaults	Continuous

Erosion and Sedimentation (EROS)

Layer Name	Layer Description	Line Type
V-EROS-RRAP	Erosion & Sedimentation Controls - Riprap	Continuous
V-EROS-SILT	Erosion & Sedimentation Controls - Silt Fence	SILT
V-EROS-TPRT	Erosion & Sedimentation Controls - Tree Protection	TP

SURVEYING/MAPPING LAYER NAMING - cont'd

Liquid Fuel (FUEL)

Layer Name	Layer Description	Line Type
V-FUEL-ABND	Abandoned Piping	FUELOF
V-FUEL-DEFL	Defueling Piping	FUELOF
V-FUEL-DEVC	Air Eliminators, Filter Strainers, Hydrant Fill Points, Line Vents, Markers, Oil/Water Separators, Reducers, Regulators, and Valves	Continuous
V-FUEL-FTTG	Caps, Crosses, and Tees	Continuous
V-FUEL-HYDR	Hydrant Control Pits	Continuous
V-FUEL-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
V-FUEL-JBOX	Junction Boxes, Manholes, Hand holes, Test Boxes	Continuous
V-FUEL-MAIN	Main Fuel Piping	FUELOF
V-FUEL-METR	Meters	Continuous
V-FUEL-PUMP	Booster Pump Stations	Continuous
V-FUEL-SERV	Service Piping	FUEL
V-FUEL-TANK	Fuel Tanks	Continuous
V-FUEL-TRCH	Fuel Line Trench	Continuous
V-FUEL-VENT	Vent Pits	Continuous
V-FUEL-VLVE	Valve Pits	Continuous

Grade Line work (GRAD)

Layer Name	Layer Description	Line Type
V-GRAD-EXST	Existing Grade, Ground Line	Dashed
V-GRAD-FNSH	Finished Grade	Continuous

Grid Lines (GRID)

Layer Name	Layer Description	Line Type
V-GRID-FRAM	Frame	Continuous
V-GRID-MAJR	Major Grid Lines	Center
V-GRID-MINR	Minor Grid Lines	Center
V-GRID-IDEN	Identification, Border Text, Annotation	Continuous

Geothermal Heat Pump System (GTHP)

Layer Name	Layer Description	Line Type
V-GTHP-EQPM	Equipment	Continuous
V-GTHP-PIPE	Piping (Includes Fittings, Valves)	Dashed

SURVEYING/MAPPING LAYER NAMING - cont'd

HTWC Utilities (HTCW)

Layer Name	Layer Description	Line Type
V-HTCW-ABND	Abandoned Piping	Continuous
V-HTCW-CHLL	Main Chilled Water Piping	CHWTRL
V-HTCW-CHLP	Chilled Water Plant	Continuous
V-HTCW-CHLS	Chilled Water Service Piping	CHWTRL
V-HTCW-DEVC	Rigid Anchors, Anchor Guides, Rectifiers, Reducers, Markers, Meters, Pumps, Regulators, Tanks, and Valves	Continuous
V-HTCW-FLOW	Flow Direction Arrows	Continuous
V-HTCW-FTTG	Caps and Flanges	Continuous
V-HTCW-HTPL	Main High Temperature Piping	Continuous
V-HTCW-HTPP	High Temperature Water Plant	Continuous
V-HTCW-HTPS	High Temperature Service Piping	Continuous
V-HTCW-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
V-HTCW-JBOX	Junction Boxes, Manholes, Hand holes, Test Boxes	Continuous
V-HTCW-LTPL	Main Low Temperature Piping	Continuous
V-HTCW-LTPS	Low Temperature Service Piping	Continuous
V-HTCW-PITS	Valve Pits/Vaults, Steam Pits	Continuous
V-HTCW-PUMP	Pump Stations	Continuous
V-HTCW-RTRN	Return For All HTCW Lines	Continuous
V-HTCW-STML	Main Steam Piping	STEAM
V-HTCW-STMS	Steam Service Piping	STEAM

Industrial Waste Water (INDW)

Layer Name	Layer Description	Line Type
V-INDW-ABND	Abandoned Piping	IWASTE
V-INDW-DEVC	Grit Chambers, Meters, Flumes, Neutralizers, Oil/Water Separators, Ejectors, Tanks, and Valves	Continuous
V-INDW-FTTG	Caps and Cleanouts	Continuous
V-INDW-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
V-INDW-JBOX	Junction Boxes and Manholes	Continuous
V-INDW-LIFT	Lift Stations	Continuous
V-INDW-MAIN	Main Industrial Waste Water Piping	IWASTE
V-INDW-PLNT	Treatment Plants	Continuous
V-INDW-SERV	Industrial Waste Water Service Piping	IWASTE

SURVEYING/MAPPING LAYER NAMING - cont'd

Lights (LITE)

Layer Name	Layer Description	Line Type
V-LITE-APPR	Approach Lights	Continuous
V-LITE-DIST	Distance and Arresting Gear Markers	Continuous
V-LITE-FIXT	Exterior Lights	Continuous
V-LITE-FIXT-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
V-LITE-LANE	Hover lane, Taxi lane, and Helipad Lights	Continuous
V-LITE-OBST	Obstruction Lights	Continuous
V-LITE-RUNW	Runway Lights	Continuous
V-LITE-RUNW-CNTL	Runway Centerline Lights	Center
V-LITE-RUNW-TDZN	Runway Touchdown Zone Lights	Continuous
V-LITE-SIGN	Taxiway Guidance Signs	Continuous
V-LITE-TAXI	Taxiway Lights	Continuous
V-LITE-THRS	Threshold Lights	Continuous

Natural Gas (NGAS)

Layer Name	Layer Description	Line Type
V-NGAS-ABND	Natural Gas Abandoned Piping	NGAS
V-NGAS-DEVC	Natural Gas Hydrant Fill Points, Lights, Vents, Markers, Rectifiers, Reducers, Regulators, Sources, Tanks, Drip Pots, Taps, and Valves	Continuous
V-NGAS-FTTG	Natural Gas Caps, Crosses, and Tees	Continuous
V-NGAS-IDEN	Natural Gas Identifier Tags, Symbol Modifier, and Text	Continuous
V-NGAS-INST	Natural Gas: Instrumentation (meters, valves, etc.)	Continuous
V-NGAS-MAIN	Natural Gas Main Natural Gas Piping	NGAS
V-NGAS-METR	Natural Gas Meters	Continuous
V-NGAS-PUMP	Natural Gas Compressor Stations	Continuous
V-NGAS-REDC	Natural Gas Reducing Stations	Continuous
V-NGAS-SERV	Natural Gas Service Piping	NGAS
V-NGAS-SIGN	Natural Gas Surface Markers/Signs	Continuous
V-NGAS-VENT	Natural Gas Vent Pits	Continuous
V-NGAS-VLVE	Natural Gas Valve Pits/Boxes	Continuous

Utility Poles (POLE)

Layer Name	Layer Description	Line Type
V-POLE-GUYS	Guying Equipment, Guy Wire	Continuous
V-POLE-GUYS-IDEN	Guying Equipment Identifier, Symbol Modifiers, and Text	Continuous
V-POLE-IDEN	Utility Pole Identifier Tags, Symbol Modifier, and Text	Continuous
V-POLE-UTIL	Utility Poles	Continuous

SURVEYING/MAPPING LAYER NAMING - cont'd

Primary Electrical Cables (PRIM)

Layer Name	Layer Description	Line Type
V-PRIM-OVHD	Overhead Electrical Utility Lines	E_OH
V-PRIM-OVHD-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
V-PRIM-UNDR	Underground Electrical Utility Lines	E_UG
V-PRIM-UNDR-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous

Profile (PROF)

Layer Name	Layer Description	Line Type
V-PROF-EXST	Existing Grade	Dashed
V-PROF-INLT	Curb and Surface Inlets, Catch Basins	Continuous
V-PROF-MHOL	Manholes	Continuous
V-PROF-NEWW	New Work, Grading Fills	Continuous
V-PROF-PIPE	Piping	Continuous
V-PROF-ROAD	Roads	Continuous
V-PROF-STAN	Stationing Text and Elevation Text	Continuous
V-PROF-TEXT	Profile Text and Callouts	Continuous

Property (PROP)

Layer Name	Layer Description	Line Type
V-PROP-AIRF-LINE	Property Lines (Existing Recorded Plats)	PROPL
V-PROP-BRNG	Bearings and Distance Labels	Continuous
V-PROP-CITY	City Boundary	Dot2
V-PROP-CNTY	County Boundary	Continuous
V-PROP-ESMT	Government Easements/Property Lines	Dashed2
V-PROP-IDEN	Property Annotation	Continuous
V-PROP-LEAS	Lease Line (Surveyed)	Continuous
V-PROP-LINE	Property Lines (Existing Recorded Plats)	PROPL
V-PROP-LUSE	Land Use Area	Phantom
V-PROP-MUNI	Municipal Boundary	Continuous
V-PROP-RWAY	Right Of Ways	ROW
V-PROP-STAT	State Boundary	Continuous
V-PROP-ZONG	Zoning Areas	Continuous

SURVEYING/MAPPING LAYER NAMING - cont'd

Pavements (PVMT)

Layer Name	Layer Description	Line Type
V-PVMT-IDEN	Road, Parking Lot, Airfield Pavement Annotation	Continuous
V-PVMT-MRKG	Pavement Markings	Continuous
V-PVMT-PATT	Pavement Textures and Hatch Patterns	Continuous
V-PVMT-ROAD	Roads, Parking Lots, Airfield Pavements	Continuous

Secondary Electrical Cables (SECD)

Layer Name	Layer Description	Line Type
V-SECD-OVHD	Overhead Electrical Utility Lines	E_OH
V-SECD-OVHD-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
V-SECD-UNDR	Underground Electrical Utility Lines	E_UG
V-SECD-UNDR-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous

Site (SITE)

Layer Name	Layer Description	Line Type
V-SITE-EWAT	Water Features	Continuous
V-SITE-FEAT	Miscellaneous Site Features, i.e. Trash cans, Signs	Continuous
V-SITE-FENC	Fences	FENCE
V-SITE-FENC-IDEN	Fence, Handrail, Ramp, and Trail Annotation	Continuous
V-SITE-IDEN	Existing Site Feature/Structure Annotation	Continuous
V-SITE-OTLN	Existing Site Features (Play Structures, Bike Racks, Benches, Recreational Equipment)	Continuous
V-SITE-STRC	Structures (Bridges, Sheds, Foundation Pads, Etc.)	Continuous
V-SITE-STRS	Stairs and Ramps	Continuous
V-SITE-VEGE	Existing Tree lines and Vegetation	Continuous
V-SITE-WALK	Walks, Trails, and Bicycle Paths	Continuous
V-SITE-WATR	Water Features	Continuous

Special Systems (SPCL)

Layer Name	Layer Description	Line Type
V-SPCL-IDEN	Special Systems (UMCS, EMCS, CATV, Etc.) Identifier Tags, Symbol Modifier, and Text	Continuous
V-SPCL-SYST	Special Systems (UMCS, EMCS, CATV, CCTV, Etc.)	CATV / CCTV
V-SPCL-TRAF	Traffic Signal System	Continuous
V-SPCL-TRAF-IDEN	Traffic Signal Identifier Tags, Symbol Modifier, and Text	Continuous

SURVEYING/MAPPING LAYER NAMING - cont'd

Sanitary Sewer/Wastewater (SSWR)

Layer Name	Layer Description	Line Type
V-SSWR-ABND	Abandoned Piping	WWL
V-SSWR-DEVC	Grease Traps, Grit Chambers, Flumes, Neutralizers, Oil/Water Separators, Ejectors, and Valves	Continuous
V-SSWR-DEVC-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
V-SSWR-FILT	Filtration Beds	Continuous
V-SSWR-FILT-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
V-SSWR-FLOW	Flow Direction Arrows	Continuous
V-SSWR-FTTG	Caps and Cleanouts	Continuous
V-SSWR-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
V-SSWR-INST	Sanitary Sewer: Instrumentation (meters, valves, etc.)	Continuous
V-SSWR-JBOX	Junction Boxes and Manholes	Continuous
V-SSWR-JBOX-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
V-SSWR-MAIN	Sanitary Sewer Piping	WWL
V-SSWR-PLNT	Treatment Plants	Continuous
V-SSWR-PUMP	Booster Pump Stations	Continuous
V-SSWR-SERV	Sanitary Sewer Service Piping	WWL
V-SSWR-SIGN	Surface Markers/Signs	Continuous
V-SSWR-TANK	Septic Tanks	Continuous

Structures (STRC)

Layer Name	Layer Description	Line Type
V-STRC-OTLN	Bridges, Piers Breakwater, Docks, Floats, Etc.	Continuous
V-STRC-TOWR	Tower	Continuous

SURVEYING/MAPPING LAYER NAMING - cont'd

Storm Sewer (STRM)

Layer Name	Layer Description	Line Type
V-STRM-ABND	Abandoned Piping	STRM
V-STRM-AFFF	AFFF Lagoon/Detention Pond	Continuous
V-STRM-CHUT	Chutes and Concrete Erosion Control Structures	Continuous
V-STRM-CULV	Culverts	Continuous
V-STRM-DEVC	Downspouts, Flumes, Oil/Water Separators, Flap Gates	Continuous
V-STRM-DRAN-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
V-STRM-FLOW	Flow Direction Arrows	Continuous
V-STRM-FMON	Flow Monitoring Station	Continuous
V-STRM-FTTG	Caps and Cleanouts	Continuous
V-STRM-HDWL	Headwalls and End walls	Continuous
V-STRM-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
V-STRM-INLT	Inlets (Curb, Surface, and Catch Basins)	Continuous
V-STRM-MAIN	Storm Sewer Piping	STRM
V-STRM-MHOL	Manholes	Continuous
V-STRM-POND	Ponds, Watersheds, and Basins	Continuous
V-STRM-PUMP	Pump Stations	Continuous
V-STRM-SERV	Storm Sewer Service Piping	STRM
V-STRM-SIGN	Surface Markers/Signs	Continuous
V-STRM-SUBS	Subsurface Drain Piping	STRM

Survey Lines (SURV)

Layer Name	Layer Description	Line Type
V-SURV-DATA	Survey Data (Benchmarks and Horizontal Control Points Or Monuments)	Continuous
V-SURV-DATA-CTPT	Survey Data (Benchmarks and Horizontal Control Points Or Monuments)	Continuous
V-SURV-IDEN	Survey, Baseline, and Control Line Annotation	Continuous
V-SURV-LINE	Survey, Baseline, and Control Line	Phantom

SURVEYING/MAPPING LAYER NAMING - cont'd

Topography (TOPO)

Layer Name	Layer Description	Line Type
V-TOPO-BKLN	Break lines	Hidden
V-TOPO-BORE	Boring Locations	Continuous
V-TOPO-BORE -IDEN	Bore Hole Identification	Continuous
V-TOPO-BORE -PATT	Boring Pattern	Continuous
V-TOPO-COOR	Coordinate Grid Ticks and Text	Continuous
V-TOPO-CREK	Creek	Divide
V-TOPO-DTCH	Ditches and Swales	Divide
V-TOPO-DTMP	DTM Points	Continuous
V-TOPO-DTMT	DTM Triangles	Continuous
V-TOPO-MAJR	Major Contours	Dashed
V-TOPO-MAJR-IDEN	Major Contours - Annotation	Continuous
V-TOPO-MINR	Minor Contours	Dashed
V-TOPO-MINR-IDEN	Minor Contours - Annotation	Continuous
V-TOPO-SLOP-TOPT	Top/Toe Slopes	Continuous
V-TOPO-SPEC	Species Site	Continuous
V-TOPO-SPOT	Spot Elevations	Continuous
V-TOPO-WETL	Wetland	Continuous

Transformers (TRAN)

Layer Name	Layer Description	Line Type
V-TRAN-PADM	Pad Mounted Transformers	Continuous
V-TRAN-PADM-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
V-TRAN-POLE	Pole Mounted Transformers	Continuous
V-TRAN-POLE-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous

SURVEYING/MAPPING LAYER NAMING - cont'd

Utilities (UTIL)

Layer Name	Layer Description	Line Type
V-UTIL-ELEC-IDEN	Power/Communication Annotation	Continuous
V-UTIL-ELEC -OVHD	Overhead Power Lines, Lights, Telephone Lines, Communication Lines	E_OH
V-UTIL-ELEC-SYMB	Power/Communication Symbology (Blocks; e.g. Poles, Guywires, Manholes)	Continuous
V-UTIL-ELEC -UNDR	Underground Power Lines, Lights, Telephone Lines, Communication Lines	E_UG
V-UTIL-IDEN	Utility Annotation	Continuous
V-UTIL-LINE	Utilities	Continuous
V-UTIL-MRKR-*	Utility Marker (* = Utility, i.e. water, elec., gas)	Continuous
V-UTIL-NGAS	Gas Lines	NGAS
V-UTIL-NGAS-IDEN	Gas Annotation	Continuous
V-UTIL-NGAS-SYMB	Gas Symbology (Blocks; e.g. , Features, and Valves)	Continuous
V-UTIL-SSWR	Sanitary Sewer Lines (Wastewater Lines)	WWL
V-UTIL-SSWR-IDEN	Sanitary Sewer (Wastewater) Annotation	Continuous
V-UTIL-SSWR-SYMB	Sanitary Sewer (Wastewater) Symbology (Blocks; e.g. Manholes, Cleanouts)	Continuous
V-UTIL-STEM	Steam Lines and Annotation	STEAM
V-UTIL-STRM	Storm Sewer Lines	STRM
V-UTIL-STRM-IDEN	Storm Sewer Annotation	Continuous
V-UTIL-STRM-SYMB	Storm Sewer S Symbology (Blocks; e.g. Culverts, Manholes, and Headwalls	Continuous
V-UTIL-COMM-	Telecommunication Lines /Telephone Line (Overhead or Underground)	TC_OH / TC_UG
V-UTIL-COMM-IDEN	Telecommunication Line/ Telephone Line Identification/Annotation	Continuous
V-UTIL-COMM-SYMB	Telecommunication Line / Telephone Line Symbology (Blocks; e.g. Manholes, Meters and Junction Box)	Continuous
V-UTIL-WATR	Water Line Mains	WATERL
V-UTIL-WATR-IDEN	Water Line Identification/Annotation	Continuous
V-UTIL-WATR-SYMB	Water Line Symbology (Blocks; e.g. Manholes, Water Meters and Valves)	Continuous

SURVEYING/MAPPING LAYER NAMING - cont'd

Water (WATR)

Layer Name	Layer Description	Line Type
V-WATR-ABND	Abandoned Piping	WATERL
V-WATR-DEVC	Connectors, Faucets, Reducers, Regulators, Vents, Tanks, Taps, Backflow Preventers, and Valves	Continuous
V-WATR-FIRE	Fire Lines	FIRE
V-WATR-FTTG	Caps, Cleanouts, Crosses, and Tees	Continuous
V-WATR-HYDR	Hydrants	Continuous
V-WATR-IDEN	Identifier Tags, Symbol Modifier, and Text	Continuous
V-WATR-INST	Water supply: Instrumentation (meters, valves, etc.)	Continuous
V-WATR-MAIN	Main Domestic Water Piping	WATERL
V-WATR-METR	Meters	Continuous
V-WATR-NHYD	Non-Potable Hydrants/Flushing Hydrants	Continuous
V-WATR-NPOT	Non-Potable Water Piping	WATERL
V-WATR-PUMP	Booster Pump Stations	Continuous
V-WATR-REDC	Pressure Reducing Stations	Continuous
V-WATR-SERV	Domestic Water Service Piping	WATERL
V-WATR-SIGN	Surface Markers/Signs	Continuous
V-WATR-TANK	Water Storage Tanks	Continuous
V-WATR-VENT	Vent Pits	Continuous

REVISION DATES for CADD STANDARDS

1. First Version: November 10, 2010- First/Original ABIA CAD Standards
2. Revision: October 2014- Updated ABIA CAD Standards to a shorter version
3. Revision: November 13, 2017- Rewrote ABIA CAD Standards into a How To Book
4. Revision: August 29, 2019- Changed the airport code from ABIA to AUS on the cover page.
5. Revision: December 16, 2019- Added CADD requirements to section 3.
6. Revision: January 16, 2020- Revised the DISCIPLINE CODES letters by deleting codes with the letter “X” which were to be use as codes not found in listing above.
7. Revision: January 22, 2020- Revised CADD requirements to section 3, since new problems were showing consistently in CAD drawings of new projects.
8. Revision: February 4, 2020- Updated definitions of DISCIPLINE CODES to be better to understand what the letters actually stood for in a sheet number.
9. Revision: February 20, 2020- Added DISCIPLINE CODE letters and definitions for GE
10. Revision: March 3, 2020- Made a new quick reference word document and PDF.
11. Revision: April 3, 2020- Added DISCIPLINE CODE letters RCP (Reflective Ceiling Panel). Also, updated CU discipline code definition.
12. Revision: August 11, 2020- Added DISCIPLINE CODE letters and definitions for QFP (Food Service Plumbing) QFE (Food Service Electrical), RFZ (Resource Fire Suppression)
13. Revision: August 20, 2020- 1. Added DISCIPLINE CODE letters IS (interior Signage) and definition. Also, added G for Cover Sheet with definition. 2. Updated section numbers and each section sheet layout from sections 3-14.
14. Revision: October 15, 2020- 1. Move the words: HORIZONTAL VIEWS from box number 1 box (Plans) in the SHEET TYPE DESIGNATOR box to box number 2 (Elevations) along with Vertical Views. 2. For box number 1 (Plans) I added the words: Floor, Ceiling and etc, Site-Civil.
15. Deleted the requirement of logo’s and seals need to be xref and etransmitted into each drawing title block. Added logo’s and seals need to be copied and paste into the title block.
16. Added to the CADD Requirements stating all CAD drawings Architectural or Civil need to be Xref’s and use a new template for each drawing in project.
17. Added the words-Cabinet(s), Free-Standing Cabinet(s) to the DISCRIPTION CODE letters “IF”, since cabinet(s) are considered a furniture item.
18. Added DISCIPLINE CODES-“TN & TY”. TN is for Telecommunications Data Networks and TY is for Telecommunication Security.
19. Added requirements for a separate external reference file CAD drawing for architectural floor plan, mechanical, electrical, plumbing, structural and civil utilities and civil site plan.
20. Added new definitions for Architectural and Interior Demolition.