

DALLAS/FORT WORTH INTERNATIONAL AIRPORT TERMINAL RENEWAL AND IMPROVEMENT PROGRAM CADD STANDARDS MANUAL



This DFW CADD Standards Manual is a detailed document that contains the CADD information required to produce graphical CADD drawings for use in the Terminal Renewal and Improvement Program. The initial source for the information contained within this document is the National CADD Standards - Version 4 (NCS) which can be found on the internet at the following location: http://www.buildingsmartalliance.org/ncs/. In addition to the NCS, a supplemental document containing additional CADD standards information has been developed to set guidelines that will provide additional support for both AutoCAD & Microstation platforms. These standards are considered a living document and as such are subject to revisions and updates on a continuous basis. This document addresses all disciplines in both Microstation XM & AutoCAD 2007 platforms 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.



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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 4 (NCS) for all work on the Terminal Renewal and Improvement Program (TRIP). Use of these two documents is required for the purpose of creating both Microstation and AutoCAD drawing files in a standard, concise and consistent format. Within this document are CADD Standards for all disciplines including, software requirements, project directory structure, file naming, level and/or layer naming, sheet numbering, cell and/or block libraries, 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 TRIP design and construction projects for DFW International Airport. The purpose of the standards contained within this manual is to:

- Provide a consistent and compatible electronic record of each project that can be recreated at a later date or referenced on future projects.
- Ensure consistent file structure and format of all CADD files so that incorporation into the DFW Airport GIS can be achieved with as little effort as possible.
- Aid the designers with the development of their designs utilizing other consultants' work as efficiently as possible.
- Facilitate the ease of use between disciplines as well as the understanding of graphical elements within the CADD files.
- 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 July 2003 edition of the DFW CADD Standards that were developed prior to the release of Microstation XM and did not include any standards or information for AutoCAD use. Additional source information was obtained from the NCS.

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 DFW & 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 allowed without the permission of the DFW International Airport.

REQUEST FOR VARIANCE

It is recognized that variances or clarifications to these standards will be necessary. All requests for variances will be presented to the DFW International Airport prior to the use of said variance. All requests shall be submitted along with any substantiating documentation to the DFW International Airport.



CHANGES TO THIS MANUAL

Proposed changes to this manual should be documented on the attached form located at the end of this chapter and submitted to the DFW International Airport for consideration.



Proposed Change to CADD Standards Manual

Date: _____

From:

Requestor	
Company/Department	
Phone	

To: DFW International Airport Attention: Vasille Maricasiu P.O. Box 612008 DFW Airport, TX 75261-2008

CADD Standards Manual:

Section	Sub-Section	
Page	Subject	

Justification for Change:

Existing Provisions are:

	Incomplete		Inaccurate		Redundant
	Conflicting		Obsolete		Other
Or		•	•	•	

The proposed change represents new provisions not covered in the current CADD Standards Manual.

Detailed Justification:

Description of Change:

Reviewed by:

CADD Manager		Date		
Disapproved		Approve	ed	
Reason for Disapproval				

Concurrence by:

Building Official	Date	
-------------------	------	--



2. <u>SOFTWARE REQUIREMENTS</u>

INTRODUCTION

This chapter identifies the software packages currently used in the development, production and maintenance of all project documentation. The list shown below is considered current as of the date of printing. However, the consultant is required to confirm the software requirements with DFW Airport prior to commencing of any work. Failure to do so may result in document submittals being rejected by DFW Airport due to unacceptable formats.

SOFTWARE

Туре	Product	Manufacturer	Format
Operating System	Windows XP	Microsoft, Inc.	
Project	Skire Unifier	Skire, Inc.	
Management			
CADD	TBD	TBD	
Management			
CADD Software	Microstation XM	Bentley Systems, Inc.	dgn
	AutoCAD 2007 (or greater)	Autodesk	dwg
Civil Software	Site Works (Select CADD)	Bentley Systems, Inc.	dgn, ttn
	or Geopak		
GIS Software	MGE Suite	Intergraph Corporation	dgn, mge
Survey Software	InRoads Survey,	Bentley Systems, Inc.	dgn
	SiteWorks, Geopak		
	(or select CAD versions of above)		
Database	Oracle, SQL or Access	Oracle or	mdb
		Microsoft, Inc.	
Word Processing	Word	Microsoft, Inc.	docx
Spreadsheet	Excel	Microsoft, Inc.	xlsx

VERSION

In general, DFW Airport uses the latest versions of all software products. However, the consultant is required to confirm version prior to beginning project work. Again, failure to do so may result in document submittals being rejected by DFW Airport due to unacceptable formats.

SUBMITTALS

All electronic files submitted delivered to DFW Airport must be in the applicable format listed above in the version mandated by DFW Airport. Documents that do not meet this requirement will be rejected by DFW Airport and will not be accepted until these requirements are met.



3. PROJECT ORGANIZATION

INTRODUCTION

This chapter defines the three types of drawing files, MASTER MAP FILES, MODEL FILES & SHEET FILES. It also defines the project directory structure, the file naming conventions for both 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. All Master Map files will be provided by the DFW Airport GIS. Any discrepancies should be brought to the attention of the DFW Airport GIS Manager. Note that all users are urged to inquire about current survey and construction activities prior to commencing design of any project within the DFW Airport.

• MODEL FILES (REFERENCE FILES)

Model files are drawn at true size (1:1) and contain the proposed work to be performed for the project. This includes all design information such as roads, utilities, runways, structures and building components such as columns, walls, windows, ductwork, piping, plans, elevations, sections, etc.

• 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.



PROJECT DIRECTORY STRUCTURE

Each discipline will have its own Project Directory Structure. The 'root' directory will be the name of the discipline (IE. architectural, structural, etc.). Within this 'root' directory, the Primary Project directory name shall be **TERMINAL RENEWAL AND IMPROVEMENT PROGRAM**. Under the primary project directory will be a sub-directory for each Terminal, as well as one for the Baggage Link, one for Roadway, one for the Intermodal Transfer Center and one for Project Resource Files.

TERMINAL RENEWAL AND IMPROVEMENT PROGRAM – contains the Project Information Files.

- **PROJECT RESOURCE FILES** contains all of the CADD resource files for the project.
- TERMINAL A contains all files for Terminal A
- **TERMINAL B** contains all files for Terminal B
- TERMINAL C contains all files for Terminal C
- **TERMINAL E** contains all files for Terminal E
- **BAGGAGE LINK L** contains all files for the Bag Link
- **ROADWAY R** contains all files for the Roadways
- **PHASING –** contains Overall Phasing Files
- TRANSFER CENTER T contains all files for the ITC
- COMMON contains all the common reference files for the Airport Note: For information regarding the Project Information Files, see Chapter 8.

The Project Resource Files directory will have additional sub-directories as shown below.

- PROJECT RESOURCE FILES
 - o **CADD STANDARDS** contains the CADD Standards for the project.
 - **MICROSTATION** contains the required Microstation files for the project to include seed files, border files, dgnlib files, color table, configuration files, resource files and any others as required.
 - AUTOCAD contains the required AutoCAD files for the project to include border files, template files, color table, configuration files, custom support files and any others as required.

Each Terminal Directory will have additional sub-directories as shown below.

- TERMINAL A
 - DOCUMENTATION contains the electronic version of all documentation required for the applicable terminal such as calculations, quantities and schedules.
 - CADD FILES contains all the CADD files required for use within the applicable terminal. This directory is subdivided into two main directories, one for Microstation & one for AutoCAD. Each of these sub-directories is further subdivided by discipline as shown below.
 - SPECIFICATIONS contains all required technical specifications.
 - MISCELLANEOUS contains any miscellaneous files associated with the terminal.
 - ANIMATIONS contains all animations and renderings associated with the terminal.

The CADD Files directory will have additional sub-directories as shown below.

- CADD FILES
 - AUTOCAD
 - **REFERENCE FILES** contains all AutoCAD reference files for the terminal.
 - SHEET FILES contains all AutoCAD sheet files for the terminal.
 - MICROSTATION
 - **REFERENCE FILES** containsall Microstation reference files for the terminal.
 - SHEET FILES contains all Microstation sheet files for the terminal.

All terminal reference files for AutoCAD will be located in the **AUTOCAD** > **REFERENCE** directory and will not be separated by discipline.

All terminal reference files for Microstation will be located in the MICROSTATION > REFERENCE directory and will not be separated by discipline.

Note that all common airport wide reference files will be located in the **TERMINAL DEVELOPMENT PROGRAM > COMMON** directory under either AutoCAD or Microstation depending on the type of file.

All sheet files for AutoCAD will be located in the AUTOCAD > SHEET FILES directory.

All sheet files for Microstation will be located in the **MICROSTATION > SHEET FILES** directory.

The directory structure within the **SHEET FILES** directory as shown below is based on the Level One Discipline Designators as shown in the NCS USD-01.11. All sheet files will be located in their appropriate **SHEET FILES** directory previously described and subdivided as shown below.

- SHEET FILES
 - o (A) ARCHITECTURAL contains all Architectural sheet files.
 - (B) GEOTECHNICAL contains all the Geotechnical sheet files.
 - (C) CIVIL contains all the Civil sheet files.
 - o (D) PROCESS contains all the Aircraft Fuel & Hydrant sheet files.
 - (E) ELECTRICAL contains all the Electrical sheet files.
 - o (F) FIRE contains all the Fire Protection sheet files.
 - o (G) GENERAL contains all the General sheet files.
 - (H) HAZARDOUS MATERIALS contains all the Haz Mat sheet files.
 - o (I) INTERIORS contains all the Interior sheet files.
 - (L) LANDSCAPE contains all the Landscape sheet files.
 - o (M) MECHANICAL contains all the Mechanical sheet files.
 - (O) OPERATIONS contains all the Operations sheet files.
 - (P) PLUMBING contains all the Plumbing sheet files.
 - o (Q) EQUIPMENT contains all the Baggage Handling System sheet files.
 - o (S) STRUCTURAL contains all the Structural sheet files.
 - o (T) TELECOMMUNICATIONS contains all the IT Communications sheet files.
 - o (V) SURVEY contains all the Survey sheet files.
 - (X) OTHER DISCIPLINES contains Other Discipline sheet files.
 - (Z) ADD / ALTERNATES contains Add / Alt sheet files.

The letters in parentheses (A) are Level One Discipline Designators and are shown here as a guide to the location of sheets within that discipline and are not part of the directory name. Note that the directories within the SHEET FILES may be subdivided by the consultant if required based on the Level 2 Discipline Designators as found in NCS on page UDS-01.29

TERMINAL RENEWAL AND IMPROVEMENT PROGRAM

• **COMMON** – contains all of the Airport wide reference files that are not unique to a terminal. These files will include all DFW Civil Master Map Files, Terminal Connectors, Airfield, and any others that may be required. These files will be further subdivided based on the type of file involved, one sub-directory for AutoCAD and one for Microstation.



DFW CIVIL MASTER MAP FILES (MICROSTATION BASE FILES)

INTRODUCTION

The DFW Airport Microstation Master Map Files represent the existing civil conditions and are generated from DFW Airport's Geographic Information System. The map file naming convention consists of an acronym to approximate a description of the file contents. The following is a list of current Civil Microstation Master Map Files available from DFW with their names and general contents:

- AIRFIELD.DGN
- **BUILDINGS.DGN** •
- CITIES.DGN •
- COMMUNICATION.DGN •
- DFW_BOUNDARY.DGN
- ELECTRIC.DGN •
- ELEC_FAA.DGN •
- FENCES.DGN
- FUEL JET.DGN •
- FUEL_PIPELINES.DGN •
- **GLYCOL.DGN** •
- HYDROLOGY.DGN
- LANDUSE.DGN •
- LEASES.DGN •
- LICENSES.DGN •
- MASTER_GRID.DGN •
- NATURAL_GAS.DGN •
- PARKING.DGN •
- PRETREAT.DGN •
- **RAILROADS.DGN** •
- **ROADS.DGN** •
- SEWER.DGN
- SEWER_CITY.DGN •
- STORM.DGN •
- STRUCTURES.DGN •
- TOPO.DGN •
- WATER.DGN •
- WATER_CITY.DGN

- Taxiways, runways, aprons and emergency roads. Buildings, ramps, stairs, sidewalks and trails.
- Adjacent city limit lines.
- Communication equipment and utilities.
- DFW Airport property boundary.

 - Electrical equipment and utilities.
 - Electrical equipment and utilities for FAA systems.
 - AOA fences and gates.
 - Aviation fuel equipment and utilities.
 - Petroleum pipelines.
 - Deicing agent equipment and utilities.
 - Creeks, lakes, ponds and streams.
 - DFW Airport area land usage map.
 - Lease areas and lease holders.
 - Franchise easements.
 - DFW Airport emergency grid.
 - Natural gas equipment and utilities.
 - Public and private parking areas.
 - Pre-treatment equipment and utilities.
 - Railroads and Airport Train.
- Public and private roadways (NON-AOA)
 - Sanitary sewer equipment and utilities.
 - Sanitary sewer equipment and utilities by city owners.
 - Storm drain structures and utilities.
 - Culverts, utility tunnels and utility structures.
- Major and minor contours.
 - Water equipment and utilities.
 - Water equipment and utilities of adjacent cities.

These files are to be located in the following directory per Project Directory Structure previously noted: TERMINAL DEVELOPMENT PROGRAM > COMMON.



ARCHITECTURAL MASTER MAP FILES (AUTOCAD BASE FILES)

The AutoCAD Master Map Files represent the existing building conditions based on field surveys done by each sub consultant based on their discipline. These files were generated by individual sub consultants and have been recently updated to show the most current conditions. The following is a list of current AutoCAD Master Map file names and their general contents:

- 10TRIPAEXP01P0A.DWG ARCHITECTURAL, EXISTING PLAN, RAMP LEVEL, TERMINAL A
- 10TRIPAEXP02P0A.DWG ARCHITECTURAL, EXISTING PLAN, CONCOURSE LEVEL, TERMINAL A
- 10TRIPAEXP03P0A.DWG ARCHITECTURAL, EXISTING PLAN, LEVEL 3, TERMINAL A
- 10TRIPAEXP01P0B.DWG ARCHITECTURAL, EXISTING PLAN, RAMP LEVEL, TERMINAL B
- 10TRIPAEXP02P0B.DWG ARCHITECTURAL, EXISTING PLAN, CONCOURSE LEVEL, TERMINAL B
- 10TRIPAEXP03P0B.DWG ARCHITECTURAL, EXISTING PLAN, LEVEL 3, TERMINAL B
- 10TRIPAEXP00P0C.DWG ARCHITECTURAL, EXISTING PLAN, TUNNEL LEVEL, TERMINAL C
- 10TRIPAEXP01P0C.DWG ARCHITECTURAL, EXISTING PLAN, RAMP LEVEL, TERMINAL C
- 10TRIPAEXP02P0C.DWG ARCHITECTURAL, EXISTING PLAN, CONCOURSE LEVEL, TERMINAL C
- 10TRIPAEXP03P0C.DWG ARCHITECTURAL, EXISTING PLAN, LEVEL 3, TERMINAL C
- 10TRIPAEXP01P0M.DWG ARCHITECTURAL, EXISTING PLAN, RAMP LEVEL, A-B CONNECTOR
- 10TRIPAEXP02P0M.DWG ARCHITECTURAL, EXISTING PLAN, CONCOURSE LEVEL, A-B CONNECTOR
- 10TRIPAEXP03P0M.DWG ARCHITECTURAL, EXISTING PLAN, LEVEL 3, A-B CONNECTOR
- 10TDPAEXP04P0M.DWG ARCHITECTURAL, EXISTING PLAN, LEVEL 4, A-B CONNECTOR
- 10TRIPAEXP01P0N.DWG ARCHITECTURAL, EXISTING PLAN, RAMP LEVEL, A-C CONNECTOR
- 10TRIPAEXP02P0N.DWG ARCHITECTURAL, EXISTING PLAN, CONCOURSE LEVEL, A-C CONNECTOR
- 10TRIPAEXP08P0N.DWG ARCHITECTURAL, EXISTING PLAN, LEVEL 3, A-C CONNECTOR
- 10TRIPAEXP04P0N.DWG ARCHITECTURAL, EXISTING PLAN, LEVEL 4, A-C CONNECTOR
- LEVELS 5-7
- 10TRIPAEXP08P0N.DWG ARCHITECTURAL, EXISTING PLAN, LEVEL 8, A-C CONNECTOR
- 10TRIPAEXP09P0N.DWG ARCHITECTURAL, EXISTING PLAN, LEVEL 9, A-C CONNECTOR
- 10TRIPAEXP10P0N.DWG ARCHITECTURAL, EXISTING PLAN, LEVEL 10, A-C CONNECTOR
- 10TRIPAEXP01P0P.DWG ARCHITECTURAL, EXISTING PLAN, RAMP LEVEL, B-D CONNECTOR
- 10TRIPAEXP02P0P.DWG ARCHITECTURAL, EXISTING PLAN, CONCOURSE LEVEL, B-D CONNECTOR
- 10TRIPAEXP03P0P.DWG ARCHITECTURAL, EXISTING PLAN, LEVEL 3, B-D CONNECTOR
- 10TRIPAEXP04P0P.DWG ARCHITECTURAL, EXISTING PLAN, LEVEL 4, B-D CONNECTOR



FILE NAMING CONVENTION – MODEL FILES

INTRODUCTION

This section defines the file naming convention for both Microstation and AutoCAD Model Files.

For additional information not shown here, refer to NCS USD-01.18.

MODEL FILES (REFERENCE FILES) – MICROSTATION AND AUTOCAD

Model files are project wide files in which the actual design work is performed. While the CADD Master Maps typically represent the existing conditions, the Model Files depict the proposed construction or modifications. The Model File naming convention utilizes a Year Code, a Project Code, a Discipline Code, a Model File Type Code, a Floor Level or File Sequence Number, a Phase Number, a Terminal Code, a Package Indicator and a File Type Extension.

MODEL FILES (REFERENCE FILES) EXAMPLE: 10TRIPCSDP01P1BMR.DGN



MODEL/REFERENCE FILE NAMING CONVENTION

CODE DESCRIPTION	CONTENTS
Year	Indicates the Year - (Year at the beginning of the contract.)
Project Code	Indicates the Project Code - (The prefix "10TRIP" is for project identification and is
	not optional.)
Discipline Code	Indicates the Discipline Code
Model File Type Code	Indicates the Model File Type Code
Floor Level or Sequence Number	Indicates the Floor Level or Sequence number - (i.e., a series of consecutive plan/profile sheets). This sequence number is for CADD file identification and is not related to the sheet number in the construction documents.
Phase	Indicates the Phase - (Use P0 if not needed.)
Terminal Code	Indicates the Terminal Code
Package Indicator	Indicates the package associated with the model file.
File Type Extension	Indicates the File Type Extension - (DGN for Microstation or DWG for AutoCAD)

- 1. All characters in the filenames are to be CAPITALIZED and no other characters should be added to or deleted from the filename without prior approval from DFW International Airport.
- 2. See pages 16 21 for Sheet Type Designators, Terminal Codes, Grid Sector Codes, and Discipline Codes tables.



FILE NAMING CONVENTION – SHEET FILES

INTRODUCTION

This section defines the file naming convention for both Microstation and AutoCAD Sheet Files. For additional information not shown here, refer to NCS USD-01.20.

SHEET FILES

A Sheet File represents the final plotted CADD drawing and is composed of Base Files to show the existing conditions, Model Files to show the proposed construction and a Border File along with general annotation placed in the Sheet File to complete the sheet.

The Sheet File naming convention utilizes a Year Code, a Project Code, a Discipline Code, a Sheet Designator, a Level Indicator, a Grid Sector Code (or a Sheet Sequence number where applicable), a Phase Number, a Terminal Code, a Package Indicator and a File Type Extension.

SHEET FILES (MASTER FILES)

EXAMPLE STRUCTURE: 10TRIPAE12101AP1AMR.DGN EXAMPLE SITE: 10TRIPCU50001P0TMR.DGN



SHEET FILE NAMING CONVENTION

CODE DESCRIPTION	CONTENTS
Year	Indicates the Year - (Year at the beginning of the contract.)
Project Code	Indicates the Project Code - (The prefix "10TRIP" is for project identification and is not optional.)
Discipline Code	Indicates the Discipline Code
Sheet Designator	Indicates the Sheet Type Designator
Level Indicator	Indicates the Floor Level of the Sheet, it is to be "0" if it is not specific
Grid Sector	Structures: Identifies the Grid Sector (101A), the first numeric being a Terminal Indicator. Non Plan Sheets: Identifies a sheet sequence number (1000), the first numeric being a Terminal Indicator. Site: Identifies a sheet sequence number (1000), the first numeric being a Terminal Indicator.
Phase	Indicates the Phase - (Use P0 if not needed.)
Terminal Code	Indicates the Terminal Code
Package Indicator	Indicates the package associated with the sheet file.
File Type Extension	Indicates the File Type Extension - (DGN for Microstation or DWG for AutoCAD)

- 1. All characters in the filenames are to be CAPITALIZED and no other characters should be added to or deleted from the filename without prior approval from DFW International Airport.
- 2. See pages 16 21 for Sheet Type Designators, Terminal Codes, Grid Sector Codes, and Discipline Codes tables.



SHEET NUMBERING

SHEET NUMBER VERSUS SHEET FILE NAME

The sheet number that appears on finished plots will approximate the sheet file name. The sheet number uses the same Discipline Code, Sheet Designator, Level Indicator, Grid Sector Code and Package Indicator that are utilized in the sheet file naming conventions. Examples are shown below.

EXAMPLE STRUCTURES SHEET:

Sheet File Name: 10TRIPAE12101AP1AMR.DGN Sheet Number: AE1-2-101A-MR

EXAMPLE SITES SHEET:

Sheet File Name: 10TRIPCU50001P0TMR.DGN Sheet Number: CU5-0-0001-MR



SHEET NUMBER NAMING CONVENTION

CODE DESCRIPTION	CONTENTS
Discipline Code	Indicates the Discipline Code
Sheet Designator	Indicates the Sheet Type Designator
Separator	Hyphen used as a separator
Level Indicator	Indicates the Floor Level of the Sheet, it is to be "0" if it is not specific
Separator	Hyphen used as a separator
Grid Sector	Structures: Identifies the Grid Sector (101A), the first numeric being a Terminal Indicator. Non Plan Sheets: Identifies a sheet sequence number (1000), the first numeric being a Terminal Indicator. Site: Identifies a sheet sequence number (1000), the first numeric being a Terminal Indicator.
Separator	Hyphen used as a separator
Package Indicator	Indicates the package associated with the sheet.

- 1. All characters in the filenames are to be CAPITALIZED and no other characters should be added to or deleted from the filename without prior approval from DFW International Airport.
- 2. See pages 16 21 for Sheet Type Designators, Terminal Codes, Grid Sector Codes, and Discipline Codes tables.



FILE NAMING CONVENTION - BORDER FILES

INTRODUCTION

This section defines the file naming convention for both Microstation and AutoCAD Border files. For additional information not shown here, refer to NCS USD-01.18.

BORDER FILES

Border files are project wide files used to create and print the sheets. The Border File naming convention utilizes a Year Code, a Project Code, a Software Code, a Border File Code, a Working Units Code, a Page Size Code, a Terminal Code, a Package Indicator and a File Type Extension. This file naming convention utilized for the Border Files is consistent with NCS and is further described below.

BORDER FILES



BORDER FILE NAMING CONVENTION

CODE DESCRIPTION	CONTENTS
Year	Indicates the Year - (Year at the beginning of the contract.)
Project Code	Indicates the Project Code - (The prefix "10TRIP" is for project identification and is not optional.)
Software Code	Indicates the Software Code - (GJ indicates Microstation file, GK indicates AutoCAD file.)
Border File Code	Indicates a Border File Code
Working Units	Indicates the Working Units of the file - (Number 01 indicates a file with Civil Working Units. Number 02 indicates a file with Architectural Units.)
Page Size Code	Indicates the Page Size Code - (See Note 2 below)
Terminal Code	Indicates the Terminal Code
Package Indicator	Indicates the package associated with the border file.
File Type Extension	Indicates the File Type Extension - (DGN for Microstation or DWG for AutoCAD)

- 1. All characters in the filenames are to be CAPITALIZED and no other characters should be added to or deleted from the filename without prior approval from DFW International Airport.
- 2. Page Size Codes are as follows and are shown in inches: PA=8.5x11, PB=11x17, PC=17x22, PD=22x34, PE=30x42



AVAILABLE BORDER FILES & SHEET SIZES

The following border files will be provided by DFW International Airport. All border files have been drawn at 1:1 and set up with proper working units as well as level/layer names that adhere to NCS. No changes to these files will be allowed without the approval of DFW International Airport.

MICROSTATION BORDER FILES

PAGE	PAGE SIZE	MICROSTATION	MICROSTATION
SIZE	IN	BORDER FILE	BORDER FILE
CODE	INCHES	CIVIL UNITS	STRUCTURAL UNITS
А	8.5 X 11	10TRIPGJBF01PAX.DGN	10TRIPGJBF02PAX.DGN
В	11 X 17	10TRIPGJBF01PBX.DGN	10TRIPGJBF02PBX.DGN
С	17 X 22	10TRIPGJBF01PCX.DGN	10TRIPGJBF02PCX.DGN
D	22 X 34	10TRIPGJBF01PDX.DGN	10TRIPGJBF02PDX.DGN
E	30 X 42	10TRIPGJBF01PEX.DGN	10TRIPGJBF02PEX.DGN

AUTOCAD BORDER FILES

	-		
PAGE	PAGE SIZE	AUTOCAD	AUTOCAD
SIZE	IN	BORDER FILE	BORDER FILE
CODE	INCHES	CIVIL UNITS	STRUCTURAL UNITS
А	8.5 X 11	10TRIPGKBF01PAX.DWG	10TRUPGKBF02PAX.DWG
В	11 X 17	10TRIPGKBF01PBX.DWG	10TRIPGKBF02PBX.DWG
С	17 X 22	10TRIPGKBF01PCX.DWG	10TRIPGKBF02PCX.DWG
D	22 X 34	10TRIPGKBF01PDX.DWG	10TRIPGKBF02PDX.DWG
E	30 X 42	10TRIPGKBF01PEX.DWG	10TRIPGKBF02PEX.DWG

- 1. Border files are to be used as reference files and are not to be placed within a sheet file as a cell or block.
- 2. The use of a 22" x 34" border scaled down .5 for use on an 11" x 17" sheet will not be allowed.
- 3. The use of an 11" x 17" border scaled up 2xs for use on a 22" x 34" sheet will not be allowed.
- 4. User is directed to utilize the proper border file for the desired final plotted sheet size.



SHEET TYPE DESIGNATORS

0	General (Symbols legend, notes, etc.)
1	Plans (Horizontal views)
2	Elevations (Vertical 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)

TERMINAL CODES

А	Terminal A
В	Terminal B
С	Terminal C
E	Terminal E
L	Baggage Link
R	Roadway Non-CTA (Not tied to a Terminal)
Т	Intermodal Transfer Center
F	Airfield
М	Terminal A-B Connector
Ν	Terminal A-C Connector
Р	Terminal B-D Connector
Q	Terminal C-D Connector
Х	Common Reference Files (Common reference files such as Border Files, airport wide reference files, etc.)

TERMINAL GRID SECTOR CODES

1	Terminal A
2	Terminal B
3	Terminal C
4	Terminal D
5	Terminal E
6	Terminal F
7	Terminal A-B Connector
8	Terminal A-C Connector
9	Terminal B-D Connector
10	Terminal C-D Connector



DISCIPLINE CODES

Designator				
Level	Level	Description of Suggested		
1	2	Name	Content	
G	-	General	All or any portion of subjects included in Level 2	
-	Gl	General Information	orientation maps	
-	GC	General Contract	Phasing, schedules, contractor staging areas, fencing, haul routes, erosion control, temporary and special requirements	
-	GR	General Resource	Photographs, soil borings	
-	GJ		User Defined	
-	GK		User Defined	
Н	-	Hazardous Materials	All or any portion of subjects included in Level 2	
-	HA	Asbestos	Asbestos abatement, identification or containment	
-	НС	Chemicals	Phasing, schedules, contractor staging areas, fencing, haul routes, erosion control, temporary and special requirements	
-	HL	Lead	Lead piping or paint removal	
-	HP	РСВ	PCB containment and removal	
-	HR	Refrigerants	Ozone depleting refrigerants	
-	HJ		User Defined	
-	HK		User Defined	
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		
-	٧J		User Defined	
-	VK		User Defined	
В	-	Geotechnical	All or any portion of subjects included in Level 2	
-	BJ		User Defined	
-	BK		User Defined	
С	-	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	
-	СР	Civil Paving	Roads, driveways, parking lots	
-	CI	Civil Improvements	Pavers, flagstone, exterior tile, furnishings, retaining walls, and water features	
-	СТ	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, and steam systems	
-	C.J		User Defined	



Desig	gnator			
Level	Level	Description of Suggested		
	2		Content	
C	- CK		All of ally polition of subjects included in Level 2	
-	CK	Landsaana	All or any portion of subjects included in Level 2	
L	-		All of ally polition of subjects included in Level 2	
-	LD		Demonition, relocation, and salvage mormation	
-	LG	Landscape Grading	Proposed contours and spot grades	
-	LI	Landscape Irrigation	Mainlines, valves, controllers, pumps, etc.	
-	LL	Landscape Lighting		
-	LP	Landscape Planting	Landscape Planting	
-	LR	Landscape Relocation	Vegetation relocation information	
-	LS	Landscape Site	All site hardscape and call-outs	
-	LJ		User-Defined	
-	LK		User-Defined	
S	-	Structural	All or any portion of subjects included in Level 2	
-	SD	Structural Demolition	Protection and removal	
-	SS	Structural Site		
-	SB	Structural Substructure	Foundations, piers, slabs, and retaining walls	
-	SF	Structural Framing	Floors and roofs	
-	SJ		User-Defined	
-	SK		User-Defined	
А	-	Architectural	All or any portion of subjects included in Level 2	
-	AS	Architectural Site		
-	AD	Architectural Demolition	Protection and removal	
-	AE	Architectural Elements	General Architectural	
-	AI	Architectural Interiors		
-	AF	Architectural Finishes		
-	AG	Architectural Graphics		
-	AJ	•	User-Defined	
-	AK		User-Defined	
I	-	Interiors	All or any portion of subjects included in Level 2	
-	ID	Interior Demolition		
-	IN	Interior Design		
-	IF	Interior Furnishings		
-	IG	Interior Graphics	Murals and visuals	
_	IJ		User-Defined	
_	IK		User-Defined	
0	-	Fauipment	All or any portion of subjects included in Level 2	
-	ΟA	Athletic Equipment	Gymnasium exercise aquatic and recreational	
		Rank Equipment	Vaults teller units ATMs drive through	
-	20		valus, tener anits, Arivis, anve through	



Designator			
Level	Level	Description of Suggested	
1	2	Name	Content
-	QC	Dry Cleaning Equipment	Washers, dryers, ironing, and dry cleaning

Designator				
Level	Level	Description of Suggested	Contant	
	2		All or any portion of subjects included in Level 2	
<u> </u>		Detention Equipment	Prisons and jails	
-			Chalkhoards library	
-			Kitchen bar service storage and processing	
-		Hospital Equipment	Medical even and treatment	
-				
-				
-		Maintenance Equipment	Housekeeping, window wasning, 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	
-	QJ		User-Defined	
-	QK		User-Defined	
F	-	Fire Protection	All or any portion of subjects included in Level 2	
-	FA	Fire Detection and Alarm		
-	FZ	Fire Suppression	Fire extinguishing systems and equipment	
-	FJ		User-Defined	
-	FK		User-Defined	
Р	-	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	
-	РJ		User-Defined	
-	PK		User-Defined	
D	-	Process	All or any portion of subjects included in Level 2	
-	DS	Process Site	Extension and connections to Civil Utilities	
-	DD	Process Demolition	Protection, termination and removal	
	D 1	Drogoss Liquids	Liquid process systems	
-	DL	Process Liquius	Liquid process systems	



Designator			
Level 1	Level 2	Description of Suggested Name	Content
_	DP	Process Piping	Piping, valves, insulation, tanks, pumps, etc.
-	DQ	Process Equipment	Systems and equipment for thermal, electrical, materials handling, assembly and manufacturing, nuclear, power generation, chemical, refrigeration, and industrial processes
-	DE	Process Electrical	Electrical exclusively associated with a process and not the facility

Designator				
Level	Level	Description of Suggested		
	2		Content	
U	-	Process	All or any portion of subjects included in Level 2	
-	DI	Process Instrumentation	controllers (electrical and mechanical)	
-	DW	Process Waters	Piping, valves, system components, equipment	
-	DC	Process Chemicals	Piping, valves, system components, equipment	
-	DA	Process Airs	Piping, valves, system components, equipment	
-	DX	Process Exhaust	Ducting, piping, valves, system components, equipment	
-	DR	Process Drains and Reclaims	Piping, valves, system components, equipment	
-	DM	Process HPM Gases	Piping, valves, system components, equipment	
-	DY	Process Slurry	Piping, valves, system components, equipment	
-	DO	Process Oil	Piping, valves, system components, equipment	
-	DV	Process Vacuum	Piping, valves, system components, equipment	
-	DJ		User-Defined	
-	DK		User-Defined	
М	-	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	
-	MJ		User-Defined	
-	MK		User-Defined	
Е	-	Electrical	All or any portion of subjects included in Level 2	
-	ES	Electrical Site	Utility tunnels, site lighting	
-	ED	Electrical Demolition	Protection, termination, and removal	
-	EP	Electrical Power		
-	EL	Electrical Lighting		



Designator			
Level 1	Level 2	Description of Suggested Name	Content
-	EI	Electrical Instrumentation	Controls, relays, instrumentation, and measurement devices
-	ΕT	Electrical Telecommunications	Telephone, network, voice and data cables
-	ΕY	Electrical Auxiliary Systems	Alarms, nurse call, security, CCTV, PA, music, clock, and program
-	EJ		User-Defined
-	ΕK		User-Defined
Т	-	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
-	ΤM	Monitoring	Monitoring and alarm systems

Designator			
Level	Level	Description of Suggested	
	2		Content
	-	Telecommunications	All or any portion of subjects included in Level 2
-	TN	Data Networks	Network cabling and equipment
-	TT	Telephone	Telephone systems, wiring, and equipment
-	ΤY	Security	Access control and alarm systems
-	ΤJ		User-Defined
-	ΤK		User-Defined
R	-	Resource	Data furnished without warrant as to accuracy
-	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
-	RJ		User-Defined
-	RK		User-Defined
Х	-	Other Disciplines	All or any portion of subjects included in Level 2
-	XJ		User-Defined
-	ХК		User-Defined
Z	-	Contractor / Shop Drawings	All or any portion of subjects included in Level 2
-	ZJ		User-Defined
-	ZK		User-Defined
0	-	Operations	All or any portion of subjects included in Level 2
-	OJ		User-Defined
-	OK		User-Defined



SURVEY MODEL FILE TYPE CODES

File Type Codes – Survey (V)

AE	Aerial Files	HD	High Definition Survey
AS	As-built Survey	LA	Layout, Planimetrics & Pts.
BE	Beams	LB	Low Beam
BN	Bents	LC	Legal Closure Check
BR	Bridge File	LC	Level Comparison
BS	Boundary Survey	LI	Legal Coordinate Inverse
CC	Coordinate Comparison	LO	Location
СК	Check File	LR	Lease Exhibit Rotated
CO	Combined Points File (.rw5)	LS	Lease Exhibit
СТ	Control Points	PL	Plat
DF	DFW Airport	PT	Survey Points
DK	Deed Sketch	RW	ROW Dedication / Abandon
DS	Design Survey	SC	Search Coordinates
EA	Easement	SE	SelectCad Coordinates
EC	Exhibit Closure Check	SH	Shapes
EI	Exhibit Coordinate Inverse	SR	SelectCad Revised Coordinates
ER	Exhibit Rotated	SK	Sketch File
EX	Exhibit	TC	Point Tics
FA	FAA Exhibit	TD	TDS Coordinates
FC	Final Coordinates	TR	Traverse
FN	Final	ТВ	Topo Base (cut / fill calc.)
FS	Field Survey	TG	Topo Grade (cut / fill calc.)
FX	Fax	TP	Topographic Survey / DTM
GO	Geographical Coordinates	UT	Utilities
HA	Harn		

- 1. CO used for International Parkway Survey as part of the CDP Program. File denotes exported coordinates from SelectCad once all "Import" files were processed and corrected.
- 2. HA used to identify a coordinate file system different from DFW Surface 88.
- 3. The "Level Comparison" (LC) file is an excel file where the survey department compares the digital level elevations with the engineer's level elevations to determine if the two are within tolerance.
- 4. The "Legal Closure Check" (LC) is a report file generated by the 'Survey Link' program.
- 5. The codes shown here are for use by DFW Airport Survey Department only and should not be used by consultants working on DFW Airport projects.



COORDINATE SYSTEM

PRIMARY COORDINATE SYSTEM:

This primary coordinate system is based on DFW Surface 88, a site-specific coordinate system for DFW International Airport. It was derived from NAD83 and developed using Intergraph's MGE Coordinate System Operations (MCSO) software.

Description

DFW Surface 88

Vertical Datum

North American Vertical D	0atum 1988
Orthometric	
Average Undulation	0.000 ft

Spherical Model

Greenwich Offset

00:00:00.0000	d:m:s

Units and Format

Latitude and Longitude	d:m:s
Northing and Easting	ft
Height	ft

Coordinate System

Lambert Conformal Conic

Loi	ngitude of Origin:	-98:30:00.0000
Lat	itude of Origin:	31:40:00.0000
Sta	ndard Parallel 1	32:08:00.0000
Sta	ndard Parallel 2	33:58:00.0000
Fal	se Easting	2,000,000.0000 ft
Fal	se Northing	6,000,000.0000 ft

Geodetic Datum

North American 1983

Ellipsoid

GRS80

Equatorial Radius	20925646.325 ft
Polar Radius	20855486.595 ft
Eccentricity	0.0818191910428158
Flattening	0.00335281068118232
Flattening Inverse	298.257222101



SECONDARY COORDINATE SYSTEM:

This secondary coordinate system is based on NAD83 and developed using Intergraph's MGE Coordinate System Operations (MCSO) software.

Description None				
Vertical Datum North American Vertical Datum 1988				
Average Undulation	0.000 ft			
Spherical Model User Specified	20926146.325 ft			
Greenwich Offset 00:00:00.0000	d:m:s			
Units and Format Latitude and Longitud Northing and Easting Height	de d:m:s ft ft			
Coordinate System State Plane Coordina 4202 Texas North Cer	te System 1983 ntral			
Lambert Conformal ConicLongitude of Origin:-98:30:00.0000Latitude of Origin:31:40:00.0000Standard Parallel 132:08:00.0000Standard Parallel 233:58:00.0000False Easting1,968,503.9370 ftFalse Northing6,561,679.7900 ft				
Geodetic Datum North American 1983				
Ellipsoid GRS80 Equatorial Radius Polar Radius Eccentricity Flattening Flattening Inverse	20925646.325 ft 20855486.595 ft 0.0818191910428158 0.00335281068118232 298.257222101			



COVER SHEETS

FILE NAMING CONVENTION

The following information directs the naming of each cover sheet for the project:

TERMINAL A	10TRIPGI00000P0A##.XXX
TERMINAL B	10TRIPGI00000P0B##.XXX
TERMINAL C	10TRIPGI00000P0C##.XXX
TERMINAL E	10TRIPGI00000P0E##.XXX
ROADWAY	10TRIPGI00000P0R##.XXX
ITC	10TRIPGI00000P0T##.XXX
TERM A NEW GARAGE	10TRIPGI00000P01##.XXX
TERM A RETRO GARAGE	10TRIPGI00000P02##.XXX
TERM B RETRO GARAGE	10TRIPGI00000P03##.XXX
TERM C RETRO GARAGE	10TRIPGI00000P04##.XXX
TERM E NEW GARAGE	10TRIPGI00000P04##.XXX
TERM E RETRO GARAGE	10TRIPGI00000P05##.XXX

- The "##" is the Package Indicator, the code varies on every package.
- The extension "XXX" is determined by the software being used.
- For AutoCAD the extension will be "DWG"
- For Microstation the extension will be "DGN"



SEALING REQUIREMENTS

PRELIMINARY SEALS

Prior to the final release of sealed construction drawings, a preliminary note will be shown in the area reserved for the final seal. This note has been provided in generic form within the border files for the end user to edit as necessary for each Engineer required to seal the sheet. The following is an example of the note required.

PRELIMINARY	PRELIMINARY
SCHEMATIC DESIGN	SCHEMATIC DESIGN
THIS DOCUMENT IS RELEASED FOR THE	THIS DOCUMENT IS RELEASED FOR THE
PURPOSE OF PRICING	PURPOSE OF PRICING UNDER THE
UNDER THE AUTHORITY OF	AUTHORITY OF REGISTERED
JOE ENGINEER, PE XXXX, ON 05/01/2010.	ARCHITECT JOE ARCHITECT, LIC. # ON
IT IS NOT INTENDED FOR BIDDING,	05/02/2010. IT IS NOT INTENDED FOR
PERMITTING, OR CONSTRUCTION	BIDDING, PERMITTING, OR CONSTRUCTION
PURPOSES.	PURPOSES.
FIRM NAME REGISTRATION #XXXX	

Note that the Firm name and Firm's TBPE (Texas Board of Professional Engineers) registration number are required to be shown as indicated above, along with the preliminary seal. Also note that this information will need to be shown just below the final electronic seal. This information is required per; The State of Texas, Texas Engineering Practice Act and Rules Concerning the Practice of Engineering and Professional Engineering Licensure 137.33(n), as quoted below.

(n) All engineering documents released, issued, or submitted by a licensee, including preliminary documents, shall clearly indicate the firm name and registration number of the engineering firm by which the engineer is employed.

- 1) If the engineer is employed by a local, State, or Federal Government agency, then only the name of the agency shall be required.
- 2) If the engineer is exempt from sealing a document under subsection (m) of this section, but elects to seal a document, then only the name of the employer shall be required.

Be advised that the above information does not apply to Architects or Landscape Architects.



4. MICROSTATION SPECIFIC INFORMATION

INTRODUCTION

This chapter discusses information specific to Microstation XM and the use of such.

DGNLIB FILES

The following dgn.lib files will be provided and maintained by DFW Airport. These files were developed utilizing National CADD Standards and are used to establish a consistent level structure between all Microstation CADD files. These files will aid the user in maintaining a consistent look from sheet to sheet by establishing the symbology for each level within the dgn.lib file. Changes to these files require notification and approval of DFW Airport. In order for the airport to maintain one central dgn.lib file for each discipline, **the Consultant is NOT authorized to make any changes to these files**. A request for change or additions to these files can be made with the use of the form at the end of Chapter One. Any additional levels approved by DFW Airport will be placed in the ADDNLDGN.LIB file separate from all other dgn.lib files and reissued to the Consultants will utilize the same level structure and symbology.

Dgnlib files to be added as developed.

This section defines the Microstation V8 concept of the Design Cube, Working Units and Global Origin. Use of the proper V8 Seed Files, provided with this document and as defined in Chapter 7 will ensure compatibility with the DFW Airport Design Cube.

DESIGN CUBE

In the past, Microstation utilized a finite design cube that had 4,294,967,296 Positional Units (P.U.) or Units of Resolution (U.O.R.) in each axis (x, y & z). These points were divided up into a grid based on the Working Units. Since the size of the design cube was fixed, there was a tradeoff between decimal places and drawing size. The larger the drawing, the fewer decimal places were available, which affected the degree of accuracy within the drawing file.

Microstation V8 has a practically unlimited drawing cube that is still defined by the Working Units, only now every coordinate in the drawing cube is calculated and stored to a full double precision number, thereby increasing the degree of accuracy and allowing Microstation V8 to fully understand the Working Units. This also allows Microstation to reference together a drawing in feet with a drawing in meters without the user having to adjust the scale, position or global origin of either drawing.

WORKING UNITS

Working Units are made up of Master Units, Sub Units and Positional Units expressed as MU:SU:PU and define the unit of measure in each Model File. Every Model File attached to a Sheet File has its own Working Units and each can be different.

- Master Units (MU) are the largest units of the design cube. Typically set to Feet or Meters with a value of 1.
- Sub Units (SU) are the second largest units of the design cube that divides the MU into smaller components. Typically set with a value of 12 to show inches or a value of 10 to show tenths of a foot.



• **Positional Units (PU)** are the smallest units of the design cube. The number of PU's per SU determines the drawing's precision and the size of the Design Cube. DFW Airport used 1000 PU's for both Civil and Architectural Files.

The only Working Unit definitions that need to be defined with Microstation V8 are the Master Units and the Sub Units. The PU's are built into Microstation V8 and are selectable from an option list. Again, the use of the proper V8 Seed File will ensure compatibility with all DFW design files. The Working Units and Unit Labels are preset within the DFW V8 Seed Files and should not be changed. To verify the correct settings, they are shown in the DGN File Settings dialog box as indicated below.

DGN File Settings	
<u>Category</u> Active Angle Active Scale Axis Color Coordinate Readout Element Attributes Fence Grid Isometric Locks Rendering Snaps Stream Views <u>Working Units</u>	Modify Working Unit Settings Unit Names Master Unit: Feet It Sub Unit: Label: Inches Inches Inches Inches Inches Inches Advanced
	Focus Item Description Specifies the smaller measuring unit, for example, Centimeters or Inches used in the design.



5. AUTOCAD AND MICROSTATION SPECIFIC INFORMATION

INTRODUCTION

This chapter discusses information specific to AutoCAD and the use of such.

AUTOCAD TEMPLATE FILES

The following AutoCAD Template files are available from DFW International Airport:

ARCHITECTURAL-TEMPLATE-MODEL.DWT CIVIL-TEMPLATE.DWT ELECTRICAL-TEMPLATE.DWT FIRE-TEMPLATE.DWT FIRE ALARM-TEMPLATE.DWT GENERAL-TEMPLATE.DWT LANDSCAPE-TEMPLATE.DWT MECHANICAL-TEMPLATE.DWT PLUMBING-TEMPLATE.DWT STRUCTURAL-TEMPLATE.DWT TELECOMMUNICATIONS-TEMPLATE.DWT

ARCHITECTURAL-LEVEL/LAYER LIST

LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
0	ACAD: LINEWORK WITHIN BLOCKS ONLY	white	CONTINUOUS	default
A-AFLD	AIRFIELD	114	CONTINUOUS/02	0.25
A-AFLD-BRDG	AIRFIELD: BRIDGE	144	CONTINUOUS/02	0.25
A-AFLD-COLS	AIRFIELD: COLUMNS	144	CONTINUOUS/02	0.25
A-AFLD-EQPM	AIRFIELD: EQUIPMENT	42	CONTINUOUS/02	0.25
A-AFLD-GRAL	AIRFIELD: GUARD RAIL	50	CONTINUOUS/02	0.25
A-AFLD-HDLN	AIRFIELD: HIDDEN LINES	182	CONTINUOUS/01	0.18
A-AFLD-MRKG	AIRFIELD: PAVEMENT MARKINGS	51	CONTINUOUS/02	0.25
A-AFLD-TEXT	AIRFIELD: TEXT	white	CONTINUOUS/02	0.25
A-ANNO	ANNOTATION	white	CONTINUOUS/02	0.25
A-ANNO-CNTR	ANNOTATION: CENTER	white	CENTER2/72	0.25
A-ANNO-DIMS	ANNOTATION: DIMENSIONS	white	CONTINUOUS/02	0.25
A-ANNO-FINE	ANNOTATION: FINE	white	CONTINUOUS/02	0.25
A-ANNO-HDLN	ANNOTATION: HIDDEN LINE	white	DASHED2	0.25
A-ANNO-IDEN	ANNOTATION: IDENTIFICATION TAGS	white	CONTINUOUS/02	0.25
A-ANNO-LEGN	ANNOTATION: LEGEND, SYMBOL KEYS	white	CONTINUOUS/02	0.25
A-ANNO-LINE	ANNOTATION: LINES	white	CONTINUOUS/.03	0.35
A-ANNO-LOGO	ANNOTATION: COMPANY LOGO	white	CONTINUOUS/02	0.25
A-ANNO-MATC	ANNOTATION: MATCHLINE	red	DASHDOT2/47	1.40
A-ANNO-NOTE	ANNOTATION: NOTES	white	CONTINUOUS/02	0.25
A-ANNO-NPLT	ANNOTATION: NON-PLOTTING GRAPHIC INFO	white	CONTINUOUS/02	0.25
A-ANNO-OTLN	ANNOTATION: OUTLINE	white	CONTINUOUS/07	1.40



LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
A-ANNO-REVC	ANNOTATION: REVISION CLOUDS	white	CONTINUOUS/02	0.25
A-ANNO-REVS	ANNOTATION: REVISIONS	red	CONTINUOUS/03	0.35
A-ANNO-SCHD	ANNOTATION: SCHEDULES	blue	CONTINUOUS/03	0.35
A-ANNO-SPCL	ANNOTATION: SPECIAL/SPECIALTIES	white	CONTINUOUS/02	0.25
A-ANNO-SYMB	ANNOTATION: REFERENCE SYMBOLS	white	CONTINUOUS/02	0.25
A-ANNO-TEXT	ANNOTATION: TEXT	cyan	CONTINUOUS/03	0.35
A-ANNO-TITL	ANNOTATION: DRAWING OR DETAIL TITLES	white	CONTINUOUS/03	0.35
A-AREA	AREA	white	CONTINUOUS/03	0.35
A-AREA-BLDG	AREA: BUILDINGS & PRIMARY STRUCTURES	white	CONTINUOUS/02	0.25
A-AREA-BNDY	AREA: BOUNDARY	white	CONTINUOUS/03	0.35
A-AREA-FLOR	AREA: FLOOR	white	DASHED2	0.35
A-AREA-IDEN	AREA: IDENTIFICATION TAGS	24	CONTINUOUS/02	0.25
A-AREA-OTLN	AREA: OUTLINE	24	CONTINUOUS/02	0.25
A-AREA-TEXT	AREA: TEXT	41	CONTINUOUS/01	0.18
A-CLNG	CEILING	84	CONTINUOUS/03	0.35
A-CLNG-ACCS	CEILING: ACCESS	white	CONTINUOUS/02	0.25
A-CLNG-CTLJ	CEILING: CONTROL JOINTS	30	CONTINUOUS/02	0.25
A-CLNG-GRID	CEILING: GRID	84	CONTINUOUS/02	0.25
A-CLNG-IDEN	CEILING: IDENTIFICATION TAGS	blue	CONTINUOUS/02	0.25
A-CLNG-OPNG	CEILING: OPENINGS	152	CONTINUOUS/04	0.50
A-CLNG-PATT	CEILING: TEXTURE OR HATCH PATTERNS	251	CONTINUOUS/01	0.18
A-CLNG-SUSP	CEILING: SUSPENDED ELEMENTS	30	CONTINUOUS/02	0.25
A-CLNG-TEES	CEILING: MAIN TEES	red	CONTINUOUS/02	0.25
A-CLNG-TEXT	CEILING: TEXT	white	CONTINUOUS/02	0.25
A-COLS	COLUMNS	23	CONTINUOUS/02	0.25
A-COLS-ENCL	COLUMNS: EQUIPMENT ENCLOSURES	30	CONTINUOUS/02	0.25
A-COLS-EXPJ	COLUMNS: EXPANSION JOINTS	133	CONTINUOUS/02	0.25
A-COLS-GRID	COLUMNS: GRID	51	CENTER2/72	0.25
A-COLS-GRID- MAJR	COLUMNS: GRID MAJOR	91	CONTINUOUS/02	0.25
A-COLS-IDEN	COLUMNS: IDENTIFICATION TAGS	40	CONTINUOUS/02	0.25
A-COLS-IDEN- MAJR	COLUMNS: IDENTIFICATION TAGS MAJOR	80	CONTINUOUS/02	0.25
A-COLS-IDEN- MINR	COLUMNS: IDENTIFICATION TAGS MINOR	41	CONTINUOUS/02	0.25
A-COLS-SYMB	COLUMNS: REFERENCE SYMBOLS	white	CONTINUOUS/02	0.25
A-COLS-TEXT	COLUMNS: TEXT	white	CONTINUOUS/02	0.25
A-COMM	TELEPHONE COMMUNICATION	214	CONTINUOUS/02	0.25
A-COMM-TEXT	TELEPHONE COMMUNICATION: TEXT	white	CONTINUOUS/02	0.25
A-CONV	CONVEYING SYSTEMS	white	CONTINUOUS/02	0.25
A-CONV-EQPM	CONVEYING SYSTEMS: EQUIPMENT	yellow	CONTINUOUS/03	0.35
A-CONV-FLOR	CONVEYING SYSTEMS: FLOOR	blue	CONTINUOUS/03	0.35



LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
A-CONV-IDEN	CONVEYING SYSTEMS: IDENTIFICATION TAGS	40	CONTINUOUS/02	0.25
A-CONV-MCUT	CONVEYING SYSTEMS: MATERIAL CUT BY VIEW	253	HIDDEN2/21	0.18
A-CONV-OVHD	CONVEYING SYSTEMS: OVERHEAD	red	CONTINUOUS/02	0.25
A-CONV-STRS	CONVEYING SYSTEMS: ESCALATORS	142	CONTINUOUS/02	0.25
A-CONV-TEXT	CONVEYING SYSTEMS: TEXT	white	CONTINUOUS/02	0.25
A-DETL	DETAIL	24	CONTINUOUS/02	0.25
A-DETL-CLNG	DETAIL: CEILING	yellow	CONTINUOUS/03	0.35
A-DETL-CSWK	DETAIL: CASEWORK	green	CONTINUOUS/03	0.35
A-DETL-FLOR	DETAIL: FLOOR	blue	CONTINUOUS/03	0.35
A-DETL-GENF	DETAIL: GENERAL FEATURES	241	CONTINUOUS/01	0.18
A-DETL-GLAZ	DETAIL: GLAZING	blue	CONTINUOUS/01	0.18
A-DETL-IDEN	DETAIL: IDENTIFICATION TAGS	white	CONTINUOUS/02	0.25
A-DETL-MBND	DETAIL: MATERIAL CUT BEYOND	blue	CONTINUOUS/01	0.18
A-DETL-MCUT	DETAIL: MATERIAL CUT BY VIEW	32	CONTINUOUS/04	0.50
A-DETL-OTLN	DETAIL: OUTLINES	yellow	CONTINUOUS/04	0.50
A-DETL-PATT	DETAIL: TEXTURE OR HATCH PATTERN	251	CONTINUOUS/01	0.18
A-DETL-PIPE	DETAIL: PIPING	yellow	CONTINUOUS/03	0.35
A-DETL-ROOF	DETAIL: ROOF	green	CONTINUOUS/02	0.25
A-DETL-STRC	DETAIL: STRUCTURES	red	CONTINUOUS/02	0.25
A-DETL-TEXT	DETAIL: TEXT	white	CONTINUOUS/02	0.25
A-DETL-WALL	DETAIL: WALL	blue	CONTINUOUS/01	0.18
A-DETL-XTRU	DETAIL: EXTRUSION	red	CONTINUOUS/02	0.25
A-DOOR	DOOR	133	CONTINUOUS/02	0.25
A-DOOR-FULL	DOOR: FULL-HEIGHT	yellow	CONTINUOUS/03	0.35
A-DOOR-IDEN	DOOR: IDENTIFICATION TAGS	yellow	CONTINUOUS/02	0.25
A-DOOR-PRHT	DOOR: PARTIAL-HEIGHT	red	CONTINUOUS/03	0.35
A-DOOR-TEXT	DOOR: TEXT	white	CONTINUOUS/02	0.25
A-DRAN	DRAINAGE	182	CONTINUOUS/01	0.18
A-DRAN-TEXT	DRAINAGE: TEXT	white	CONTINUOUS/02	0.25
A-ELEV	ELEVATION	20	CONTINUOUS/03	0.35
A-ELEV-CSWK	ELEVATION: CASEWORK	green	CONTINUOUS/02	0.25
A-ELEV-EXPJ	ELEVATION: EXPANSION JOINT	133	CONTINUOUS/02	0.25
A-ELEV-FIXT	ELEVATION: FIXTURES	blue	CONTINUOUS/02	0.25
A-ELEV-FNSH	ELEVATION: FINISHES	green	CONTINUOUS/02	0.25
A-ELEV-GLAZ	ELEVATION: GLAZING	130	CONTINUOUS/03	0.35
A-ELEV-IDEN	ELEVATION: IDENTIFICATION TAGS	blue	CONTINUOUS/02	0.25
A-ELEV-JAMB	ELEVATION: DOOR & WINDOW JAMBS	133	CONTINUOUS/02	0.25
A-ELEV-MBND	ELEVATION: MATERIAL CUT BEYOND	blue	CONTINUOUS/01	0.18
A-ELEV-MCUT	ELEVATION: MATERIAL CUT BY VIEW	32	CONTINUOUS/04	0.50
A-ELEV-OPNG	ELEVATION: OPENINGS	32	CONTINUOUS/04	0.50
A-ELEV-OTLN	ELEVATION: OUTLINES	yellow	CONTINUOUS/03	0.35



LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
A-ELEV-PATT	ELEVATION: TEXTURE OR HATCH PATTERN	251	CONTINUOUS/01	0.18
A-ELEV-SIGN	ELEVATION: SIGNAGE	red	CONTINUOUS/02	0.25
A-ELEV-TEXT	ELEVATION: TEXT	white	CONTINUOUS/02	0.25
A-EQPM	EQUIPMENT	127	CONTINUOUS/02	0.25
A-EQPM-ACCS	EQUIPMENT: ACCESS	yellow	CONTINUOUS/02	0.25
A-EQPM-CLNG	EQUIPMENT: CEILING	yellow	CONTINUOUS/02	0.25
A-EQPM-FIXD	EQUIPMENT: FIXED	red	CONTINUOUS/02	0.25
A-EQPM-IDEN	EQUIPMENT: IDENTIFICATION TAGS	yellow	CONTINUOUS/02	0.25
A-EQPM-MOVE	EQUIPMENT: MOVEABLE	yellow	CONTINUOUS/02	0.25
A-EQPM-ODFF	EQUIPMENT: OTHER DIFFUSERS	9	CONTINUOUS/01	0.18
A-EQPM-TEXT	EQUIPMENT: TEXT	white	CONTINUOUS/02	0.25
A-EVAC	EVACUATION PLAN	12	CONTINUOUS/02	0.25
A-EVAC-EQPM	EVACUATION PLAN: EQUIPMENT	blue	CONTINUOUS/01	0.18
A-EVAC-EXIT	EVACUATION PLAN: EXIT	red	CONTINUOUS/02	0.25
A-EVAC-IDEN	EVACUATION PLAN: IDENTIFICATION TAGS	white	CONTINUOUS/02	0.25
A-EVAC-RATE	EVACUATION PLAN: RATINGS	green	CONTINUOUS/02	0.25
A-EVAC-TEXT	EVACUATION PLAN: TEXT	white	CONTINUOUS/02	0.25
A-FLOR	FLOOR	10	CONTINUOUS/02	0.25
A-FLOR-CSWK	FLOOR: CASEWORK	41	CONTINUOUS/02	0.25
A-FLOR-EQPM	FLOOR: EQUIPMENT	blue	CONTINUOUS/02	0.25
A-FLOR-EVTR	FLOOR: ELEVATOR CARS & EQUIPMENT	blue	CONTINUOUS/03	0.35
A-FLOR-EXPJ	FLOOR: EXPANSION JOINTS	133	CONTINUOUS/02	0.25
A-FLOR-FIXT	FLOOR: FIXTURES	green	CONTINUOUS/02	0.25
A-FLOR-HRAL	FLOOR: HANDRAILS/GUARD RAILS	red	CONTINUOUS/02	0.25
A-FLOR-IDEN	FLOOR: IDENTIFICATION TAGS	green	CONTINUOUS/02	0.25
A-FLOR-LEVL	FLOOR: LEVEL CHANGES	yellow	CONTINUOUS/03	0.35
A-FLOR-LOWR	FLOOR: LOWER	yellow	CONTINUOUS/02	0.25
A-FLOR-OTLN	FLOOR: OUTLINE	227	CONTINUOUS/02	0.25
A-FLOR-OVHD	FLOOR: OVERHEAD	41	HIDDEN2/31	0.18
A-FLOR-PATT	FLOOR: TEXTURE OR HATCH PATTERNS	251	CONTINUOUS/01	0.18
A-FLOR-RAIS	FLOOR: RAISED	green	CONTINUOUS/02	0.25
A-FLOR-SIGN	FLOOR: SIGNAGE	red	CONTINUOUS/02	0.25
A-FLOR-SPCL	FLOOR: SPECAIL/SPECIALTIES	green	CONTINUOUS/02	0.25
A-FLOR-STRS	FLOOR: STAIRS	142	CONTINUOUS/02	0.25
A-FLOR-TACC	FLOOR: TOILET ACCESSORIES	11	CONTINUOUS/02	0.25
A-FLOR-TEXT	FLOOR: TEXT	white	CONTINUOUS/02	0.25
A-FLOR-TPTN	FLOOR: TOILET PARTITIONS	red	CONTINUOUS/02	0.25
A-FLOR-WDWK	FLOOR: ARCHITECTURAL WOODWORK	63	CONTINUOUS/02	0.25
A-FNSH	FINISHES	22	CONTINUOUS/01	0.18
A-FNSH-IDEN	FINISHES: IDENTIFICATION TAGS	white	CONTINUOUS/02	0.25


LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
A-FNSH-PATT	FINISHES: TEXTURE OR HATCH PATTERNS	251	CONTINUOUS/08	0.18
A-FNSH-TEXT	FINISHES: TEXT	white	CONTINUOUS/02	0.25
A-FUEL-PNPT	FUEL: PANEL POINTS	12	CONTINUOUS/02	0.25
A-FURN	FURNISHINGS	122	CONTINUOUS/02	0.25
A-FURN-EQPM	FURNISHINGS: EQUIPMENT	127	CONTINUOUS/02	0.25
A-FURN-GRID	FURNISHINGS: GRIDS	51	CONTINUOUS/02	0.25
A-FURN-IDEN	FURNISHINGS: IDENTIFICATION TAGS	red	CONTINUOUS/02	0.25
A-FURN-PNLS	FURNISHINGS: SYSTEM PANELS	blue	CONTINUOUS/02	0.25
A-FURN-SEAT	FURNISHINGS: SEATING	magenta	CONTINUOUS/02	0.25
A-FURN-STOR	FURNISHINGS: STORAGE	blue	CONTINUOUS/02	0.25
A-FURN-TEXT	FURNISHINGS: TEXT	white	CONTINUOUS/02	0.25
A-FURN-WDWK	FURNISHINGS: ARCHITECTURAL WOODWORK	13	CONTINUOUS/02	0.25
A-FURN-WKSF	FURNISHINGS: WORKSURFACE	blue	CONTINUOUS/02	0.25
A-GLAZ	GLAZING	130	CONTINUOUS/02	0.25
A-GLAZ-FULL	GLAZING: FULL-HEIGHT	red	CONTINUOUS/02	0.25
A-GLAZ-IDEN	GLAZING: IDENTIFICATION TAGS	yellow	CONTINUOUS/02	0.25
A-GLAZ-PRHT	GLAZING: PARTIAL-HEIGHT	red	CONTINUOUS/02	0.25
A-GLAZ-SILL	GLAZING: WINDOW SILLS	21	CONTINUOUS/01	0.18
A-GLAZ-TEXT	GLAZING: TEXT	white	CONTINUOUS/02	0.25
A-HVAC	HVAC SYSTEM	181	CONTINUOUS/04	0.50
A-HVAC-ODFF	HVAC SYSTEM: OTHER DIFFUSERS	green	CONTINUOUS/02	0.25
A-HVAC-RDFF	HVAC SYSTEM: RETURN AIR DIFFUSERS	blue	CONTINUOUS/04	0.50
A-HVAC-SDFF	HVAC SYSTEM: SUPPLY DIFFUSERS	blue	CONTINUOUS/04	0.50
A-HVAC-TEXT	HVAC SYSTEM: TEXT	white	CONTINUOUS/02	0.25
A-LITE	LIGHTING	72	CONTINUOUS/02	0.25
A-LITE-CLNG	LIGHTING: CEILING	green	CONTINUOUS/04	0.50
A-LITE-EMER	LIGHTING: EMERGENCY	red	CONTINUOUS/02	0.25
A-LITE-FLOR	LIGHTING: FLOOR	72	CONTINUOUS/02	0.25
A-LITE-IDEN	LIGHTING: IDENTIFICATION TAGS	white	CONTINUOUS/02	0.25
A-LITE-SWCH	LIGHTING: SWITCHES	72	CONTINUOUS/02	0.25
A-LITE-TEXT	LIGHTING: TEXT	white	CONTINUOUS/02	0.25
A-LITE-WALL	LIGHTING: WALL	green	CONTINUOUS/01	0.18
A-MAJQ	MAJOR EQUIPMENT	15	CONTINUOUS/02	0.25
A-MAJQ-CNTR	MAJOR EQUIPMENT: CENTER	230	CENTER2/71	0.18
A-MAJQ-DOOR	MAJOR EQUIPMENT: DOORS	133	CONTINUOUS/02	0.25
A-MAJQ-IDEN	MAJOR EQUIPMENT: IDENTIFICATION TAGS	white	CONTINUOUS/02	0.25
A-MAJQ-OTLN	MAJOR EQUIPMENT: OUTLINE	20	CONTINUOUS/02	0.25
A-MAJQ-TEXT	MAJOR EQUIPMENT: TEXT	white	CONTINUOUS/02	0.25
A-MAJQ-UTIL	MAJOR EQUIPMENT: UTILITY LINES	21	CONTINUOUS/02	0.25
A-NPLT	NON-PLOTTING GRAPHIC INFORMATION	blue	CONTINUOUS/02	0.25



LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
A-POWR	POWER	35	CONTINUOUS/02	0.25
A-POWR-TEXT	POWER: TEXT	white	CONTINUOUS/02	0.25
A-POWR-WALL	POWER: WALL	34	CONTINUOUS/02	0.25
A-PRKG	PARKING	40	CONTINUOUS/02	0.25
A-PRKG-CARS	PARKING: CARS	20	CONTINUOUS/01	0.18
A-PRKG-EQPM	PARKING: EQUIPMENT	yellow	CONTINUOUS/02	0.25
A-PRKG-EXPJ	PARKING: EXPANSION JOINTS	133	CONTINUOUS/02	0.25
A-PRKG-POST	PARKING: BOLLARDS	yellow	CONTINUOUS/02	0.25
A-PRKG-SIGN	PARKING: SIGNAGE	94	CONTINUOUS/02	0.25
A-PRKG-STRP	PARKING: STRIPING	40	CONTINUOUS/02	0.25
A-PRKG-TEXT	PARKING: TEXT	white	CONTINUOUS/02	0.25
A-PLAN	KEYPLAN (FLOOR PLAN)	white	CONTINUOUS/02	0.25
A-ROOF	ROOF	242	CONTINUOUS/02	0.25
A-ROOF-DRAN	ROOF: DRAINAGE SLOPE INDICATIONS	red	CONTINUOUS/02	0.25
A-ROOF-EQPM	ROOF: EQUIPMENT	green	CONTINUOUS/02	0.25
A-ROOF-EXPJ	ROOF: EXPANSION JOINTS	133	CONTINUOUS/02	0.25
A-ROOF-HRAL	ROOF: HANDRAILS/GUARD RAILS	red	CONTINUOUS/02	0.25
A-ROOF-LEVL	ROOF: LEVEL CHANGES	blue	CONTINUOUS/03	0.35
A-ROOF-LOWR	ROOF: LOWER	242	CONTINUOUS/02	0.25
A-ROOF-OTLN	ROOF: OUTLINE	221	CONTINUOUS/04	0.50
A-ROOF-PATT	ROOF: TEXTURE OR HATCH PATTERNS	251	CONTINUOUS/01	0.18
A-ROOF-SPCL	ROOF: SPECIAL/SPECIALTIES	green	CONTINUOUS/02	0.25
A-ROOF-STRS	ROOF: STAIRS	blue	CONTINUOUS/02	0.25
A-ROOF-TEXT	ROOF: TEXTURE OR HATCH PATTERNS	white	CONTINUOUS/02	0.25
A-SECT	SECTION	32	CONTINUOUS/04	0.50
A-SECT-IDEN	SECTION: IDENTIFICATION TAGS	white	CONTINUOUS/02	0.25
A-SECT-MBND	SECTION: MATERIAL CUT BEYOND	blue	CONTINUOUS/01	0.18
A-SECT-MCUT	SECTION: MATERIAL CUT BY VIEW	32	CONTINUOUS/04	0.50
A-SECT-PATT	SECTION: TEXTURE OR HATCH PATTERNS	251	CONTINUOUS/01	0.18
A-SECT-TEXT	SECTION: TEXT	white	CONTINUOUS/02	0.25
A-SITE	SITE FEATURES	8	CONTINUOUS/02	0.25
A-SITE-CONC	SITE FEATURES: CONCRETE	150	CONTINUOUS/02	0.25
A-SITE-DRAN	SITE FEATURES: DRAINAGE SLOPE INDICATORS	172	CONTINUOUS/02	0.25
A-SITE-ELEV	SITE FEATURES: ELEVATION	white	CONTINUOUS/02	0.25
A-SITE-ESMT	SITE FEATURES: EASEMENT	144	CONTINUOUS/02	0.25
A-SITE-GRID	SITE FEATURES: GRID	141	CONTINUOUS/02	0.25
A-SITE-MAJR	SITE FEATURES: MAJOR	20	CONTINUOUS/02	0.25
A-SITE-MATC	SITE FEATURES: MATCH LINES	red	DASHDOT2/44	0.50
A-SITE-MINR	SITE FEATURES: MINOR	173	CONTINUOUS/01	0.18
A-SITE-MISC	SITE FEATURES: MISCELLANEOUS	8	CONTINUOUS/02	0.25



LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
A-SITE-MRKG	SITE FEATURES: PAVEMENT MARKINGS	white	CONTINUOUS/02	0.25
A-SITE-PERI	SITE FEATURES: PERIMETER	240	DIVIDE2	1.00
A-SITE-PVMT	SITE FEATURES: PAVEMENT MARKINGS	13	CONTINUOUS/02	0.25
A-SITE-SIGN	SITE FEATURES: SIGNAGE	160	CONTINUOUS/02	0.25
A-SITE-TEXT	SITE FEATURES: TEXT	white	CONTINUOUS/02	0.25
A-SITE-UTIL	SITE FEATURES: UTILITY LINES	50	CONTINUOUS/02	0.25
A-SITE-VEGE	SITE FEATURES: TREES, SHRUBS, VEGITATION	112	CONTINUOUS/01	0.18
A-SPCL	SPECIAL	white	CONTINUOUS/02	0.25
A-STRM	STORM SEWER	182	CONTINUOUS/02	0.25
A-STRM-TEXT	STORM SEWER: TEXT	white	CONTINUOUS/02	0.25
A-VPRT-LINE	ACAD: VIEWPORTS	white	CONTINUOUS/01	0.18
A-WALL	WALLS	43	CONTINUOUS/02	0.25
A-WALL-CAVI	WALLS: CAVITY	blue	CONTINUOUS/03	0.35
A-WALL-CNTJ	WALLS: CONSTRUCTION JOINTS	133	CONTINUOUS/01	0.18
A-WALL-CNTR	WALLS: CENTER	blue	CENTER2/71	0.18
A-WALL-DECK	WALLS: DECK	green	CONTINUOUS/03	0.35
A-WALL-EXTR	WALLS: EXTERIOR	blue	CONTINUOUS/03	0.35
A-WALL-FIRE	WALLS: FIRE PROTECTION	blue	CONTINUOUS/03	0.35
A-WALL-FULL	WALSS: FULL HEIGHT	50	CONTINUOUS/02	0.25
A-WALL-HEAD	WALLS: DOOR & WINDOW HEADERS	yellow	CONTINUOUS/03	0.35
A-WALL-IDEN	WALLS: IDENTIFICATION TAGS	green	CONTINUOUS/02	0.25
A-WALL-INTR	WALLS: INTERIOR	yellow	CONTINUOUS/03	0.35
A-WALL-JAMB	WALLS: DOOR & WINDOW JAMBS	red	CONTINUOUS/02	0.25
A-WALL-MOVE	WALLS: MOVEABLE	blue	CONTINUOUS/01	0.18
A-WALL-NPLT	WALLS: NON-PLOTTING GRAPHIC INFORMATION	white	CONTINUOUS/02	0.25
A-WALL-OPNG	WALLS: OPENINGS	32	CONTINUOUS/02	0.25
A-WALL-OVHD	WALLS: OVERHEAD	41	HIDDEN2/21	0.25
A-WALL-PATT	WALLS: TEXTURE OR HATCH PATTERNS	251	CONTINUOUS/01	0.18
A-WALL-PRHT	WALLS: PARTIAL-HEIGHT	yellow	CONTINUOUS/02	0.25
A-WALL-SPCL	WALLS: SPECIAL/SPECIALTIES	red	CONTINUOUS/02	0.25
A-WALL-TEXT	WALLS: TEXT	white	CONTINUOUS/02	0.25
A-XREF-FILE	ACAD: REFERENCE FILES	white	CONTINUOUS/02	0.25
AD-CONV	ARCHITECTURAL DEMO: CONVEYING SYSTEMS	252	DASHED2	0.50
AD-CSWK	ARCHITECTURAL DEMO: CASEWORK	252	DASHED2	0.50
AD-EQPM	ARCHITECTURAL DEMAO: EQUIPMENT	252	DASHED2	0.50
AD-FLOR	ARCHITECTURAL DEMO: FLOOR	252	DASHED2	0.50
AD-ROOF	ARCHITECTURAL DEMO: ROOF	252	DASHED2	0.50
AD-SITE	ARCHITECTURAL DEMO: SITE	252	DASHED2	0.50
AD-WALL	ARCHITECTURAL DEMO: WALL	252	DASHED2	0.50
Defpoints	ACAD: NON-PLOTTING GRAPHIC INFORMATION	white	CONTINUOUS	default



CIVIL-LEVEL/LAYER LIST

LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
C-ALGN-DATA	ALIGNMENT COORDINATES AND CURVE DATA	2	CONTINUOUS/02	0.25
C-ALGN-LINE	ALIGNMENTS	4	DASHDOT2/42	0.25
C-ALGN-MAJR	ALIGNMENT MAJOR STATIONING AND TICK	3	CONTINUOUS/02	0.25
C-ALGN-MARK	ALIGNMENT TICK MARKS	2	CONTINUOUS/02	0.25
	ALIGNMENT MINOR STATIONING AND TICK			0.10
C-ALGIN-IVIIINR	ALIGNMENT STATIONING AND TICK MARKS,	5		0.13
C-ALGN-STAT	ALIGNMENT PI'S	2	CONTINUOUS/02	0.25
C-ALGN-SYMB	ALIGNMENT SYMBOLS (PIS)	5	CONTINUOUS/02	0.25
C-ALGN-TEXT	ALIGNMENT TEXT, ANNOTATION WITH ASSOCIATED LEADERS	4	CONTINUOUS/02	0.25
C-ANNO-DIMS	DIMENSIONS, TERMINATORS, DIMENSION TEXT	7	CONTINUOUS/00	0.13
	REFERENCE KEYNOTES WITH ASSOCIATED	7		0.10
C-ANNO-KEYN		/		0.13
C-ANNO-LEGN	TEXT/SHAPE MASK FOR USE WITH PHOTO	/	CONTINUOUS/00	0.13
C-ANNO-MASK	BACKGROUNDS	16	CONTINUOUS/00	0.13
C-ANNO-MATC	MATCH LINES	7	DASHDOT2/45	0.70
C-ANNO-NOTE	GENERAL NOTES AND REMARKS	4	CONTINUOUS/02	0.25
C-ANNO-NPLT	NON-PLOTTING GRAPHIC INFORMATION	1	CONTINUOUS/00	0.13
C-ANNO-PATT	PATTERNING, POCHE, SHADING, AND HATCHING	9	CONTINUOUS/00	0.13
C-ANNO-RDME	READ-ME INFORMATION	1	CONTINUOUS/00	0.13
C-ANNO-REVS	REVISIONS	7	CONTINUOUS/03	0.35
C-ANNO-SCHD	SCHEDULES	7	CONTINUOUS/00	0.13
C-ANNO-SYMB	MISCELLANEOUS SYMBOLS	5	CONTINUOUS/00	0.13
C-ANNO-TEXT	MISCELLANEOUS TEXT	7	CONTINUOUS/00	0.13
C-APRN-CNTR	APRON CENTERLINES	3	CENTER2/72	0.25
C-APRN-CNTR- IDEN	APRON CENTERLINE ANNOTATION	4	CONTINUOUS/02	0.25
C-APRN-GRND	GROUNDING POINTS	4	CONTINUOUS/02	0.25
C-APRN-HOLD	HOLDING POSITION MARKINGS	3	CONTINUOUS/01	0.18
C-APRN-IDEN	AIRFIELD APRON - ANNOTATION	4	CONTINUOUS/02	0.25
C-APRN-MOOR	MOORING POINTS	4	CONTINUOUS/02	0.25
C-APRN-MRKG	APRON MARKINGS	7	CONTINUOUS/03	0.35
C-APRN-OTLN	AIRFIELD APRON - OUTLINES	7	CONTINUOUS/03	0.35
C-APRN-SECU	SECURITY ZONE MARKINGS	3	CONTINUOUS/01	0.18
C-APRN-SHLD	SHOULDERS WITH ANNOTATION	4	CONTINUOUS/02	0.25
C-APRN-SHLD- MRKG	SHOULDER STRIPES	4	CONTINUOUS/02	0.25
	OUTDOOR DECKS (ATTACHED, NO ROOF			
C-BLDG-DECK	OVERHEAD)	7	CONTINUOUS/03	0.35
C-BLDG-DOCK	LUADING DOCKS BUILDING AND OTHER STRUCTURE	7	CONTINUOUS/03	0.35
C-BLDG-IDEN	ANNOTATION	4	CONTINUOUS/02	0.25



LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
C-BLDG-OTLN	BUILDINGS AND OTHER STRUCTURES	7	CONTINUOUS/05	0.70
C-BLDG-OVHD	BUILDING OVERHANGS	7	HIDDEN2/23	0.35
C-BLDG-PRCH	PORCHES (ATTACHED, ROOF OVERHEAD)	7	CONTINUOUS/03	0.35
C-BORW-IDEN	BORROW/SPOIL AREA ANNOTATION	4	CONTINUOUS/02	0.25
C-BORW-LINE	BORROW/SPOIL AREA	4	DASHED2/02	0.25
C-BRDG-CHRD-		7		0.25
		7		0.35
C-BRDG-CNTR	BRIDGE CENTERLINES	3		0.18
C-BRDG-CTLJ		/		0.18
C-BRDG-DECK		/		0.35
C-BRDG-IDEN		4		0.25
C-BRDG-OTLN	BRIDGE OUTLINES	/		0.35
C-BRDG-RAIL	BRIDGE RAILING	/	CONTINUOUS/01	0.18
IDEN	CHANNEL/CANAL TOP OF BANK ANNOTATION	4	CONTINUOUS/02	0.25
TOPB	CHANNEL/CANAL TOP OF BANK	4	CONTINUOUS/02	0.25
C-CHAN-BNCH	CHANNEL/CANAL (BREAKLINES FORM DTMS)	4	CONTINUOUS/02	0.25
C-CHAN-BWTR	BREAKWATERS	5	CONTINUOUS/02	0.25
	CHANNEL CENTERLINE AND SURVEY REPORT	1		0.12
C-CHAN-CNTR-	CHANNEL CENTERLINE AND SURVEY REPORT	I	CLINIER2/70	0.13
IDEN		1	CONTINUOUS/02	0.25
C-CHAN-DACL	ANCHORAGES, ETC.	2	CONTINUOUS/02	0.25
C-CHAN-DACL-				
IDEN	DE-AUTHORIZED CHANNEL LIMITS, - ANNO	2	CONTINUOUS/02	0.25
C-CHAN-DOCK	FACILITIES	5	CONTINUOUS/02	0.25
	CHANNEL LIMITS, ANCHORAGES, TURNING	F		0.05
C-CHAN-LIMT-	BASINS, ETC.	5	CONTINUOUS/02	0.25
IDEN	CHANNEL LIMITS, - ANNOTATION	5	CONTINUOUS/02	0.25
C-CHAN-NAID	NAVIGATION AIDS AND TEXT	7	CONTINUOUS/02	0.25
C-CHAN-SLOP-	FILL LINES)	4	CONTINUOUS/02	0.25
C-CHAN-SPOL	SPOIL LIMITS	7	CONTINUOUS/03	0.35
C-CHAN-SYMB	CHANNEL/CANAL SYMBOLS	5	CONTINUOUS/02	0.25
	CHANNEL/CANAL TEXT, ANNO WITH	4		0.05
C-CHAIN-TEXT		4		0.25
C-CHAN-TOE	CHANNEL/CANAL TOE	I	DASHED	0.35
IDEN	CHANNEL/CANAL TOE ANNOTATION	5	CONTINUOUS/02	0.25
C-CHAN-TURN	TURNING POINTS	4	CONTINUOUS/02	0.25
C-CHAN-WIDE	CHANNEL/CANAL WIDENER	7	DASHED	0.35
C-DETL-GRPH	GRAPHICS, GRIDLINES, NON-TEXT ITEMS	3	CONTINUOUS/05	0.70
MNR	TABLE GRIDLINES INTERIOR	7	CONTINUOUS/01	0.18
C-DETL-INPD	INCH-POUND-SPECIFIC DIMENSIONS AND NOTES	3	CONTINUOUS/02	0.25



LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
C-DETL-METR	METRIC-SPECIFIC DIMENSIONS AND NOTES	2	CONTINUOUS/02	0.25
C-DOMW-ABND-		5	ΠΔ SHED 2	0.25
	CONNECTORS, FAUCETS, REDUCERS,	5	DASHEDZ	0.23
C-DOMW-DEVC	REGULATORS, ETC.	5	CONTINUOUS/02	0.25
C-DOMW-FIRE	FIRE LINES	3	CONTINUOUS/02	0.25
C-DOMW-FTTG	CAPS, CLEANOUTS, CROSSES, AND TEES	5	CONTINUOUS/02	0.25
C-DOMW-HYDR	HYDRANTS	3	CONTINUOUS/02	0.25
C-DOMW-IDEN	IDENTIFIER TAGS, SYMBOL MODIFIER, AND TEXT	4	CONTINUOUS/02	0.25
PIPE	MAIN DOMESTIC WATER PIPING	5	CONTINUOUS/02	0.25
C-DOMW-METR	METERS	2	CONTINUOUS/02	0.25
C-DOMW-NPW-		2		0.05
C-DOMW-NPW-	NON-POTABLE HYDRANTS/FLUSHING HYDRANTS	3	CONTINUOUS/02	0.25
PIPE	NON-POTABLE WATER PIPING	5	CONTINUOUS/02	0.25
C-DOMW-PITS-	IDENITIEIER TAGS SYMBOL MODIEIER AND TEXT	2	CONTINUOUS/02	0.25
C-DOMW-PITS-		2	001111100003/02	0.20
	VALVE PITS/VAULTS	2	CONTINUOUS/02	0.25
VENT	VENT PITS	2	CONTINUOUS/02	0.25
C-DOMW-SERV-		Г		0.05
		5		0.25
C-DOMW-SIGN C-DOMW-STNS-	SURFACE MARKERS/SIGNS	3	CONTINUOUS/02	0.25
IDEN	IDENTIFIER TAGS, SYMBOL MODIFIER, AND TEXT	4	CONTINUOUS/02	0.25
C-DOMW-SINS-	BOOSTER PLIMP STATIONS	5	CONTINUOUS/02	0.25
C-DOMW-STNS-				0120
REDC	PRESSURE REDUCING STATIONS	5	CONTINUOUS/02	0.25
C-DOMW-TANK	WATER STORAGE TANKS	3	CONTINUOUS/02	0.25
C-DOMW-WELL	WATER WELL HOUSES	3	CONTINUOUS/02	0.25
C-DRED-IDEN	DREDGING ANNOTATION	4	CONTINUOUS/02	0.25
C-DRED-LIMT	DREDGE LIMIT LINES	7	CONTINUOUS/03	0.35
C-DRED-OHWM	ORDINARY HIGH WATER MARKS	4	CONTINUOUS/02	0.25
C-DTCH-BOTM	BOTTOM OF DITCH OR WASH	2	CONTINUOUS/01	0.18
C-DTCH-CNTR	CENTERLINE OF DITCH OR WASH	1	CENTER2/70	0.13
C-DTCH-EWAT	EDGE OF WATER	7	CONTINUOUS/01	0.18
C-DTCH-IDEN	DITCHES AND WASHES ANNOTATION	2	CONTINUOUS/02	0.25
C-DTCH-TOP	TOP OF DITCH OR WASH	2	CONTINUOUS/01	0.18
C-ELEV-IDEN	COMPONENT IDENTIFICATION NUMBERS	4	CONTINUOUS/02	0.25
C-ELEV-OTLN	BUILDING OUTLINES	5	CONTINUOUS/02	0.25
C-ELEV-PATT	TEXTURES AND HATCH PATTERNS	9	CONTINUOUS/00	0.13
C-ELEV-SIGN	SIGNAGE	3	CONTINUOUS/02	0.25
C-EROS-CIPR	CULVERT INLET PROTECTION	2	CONTINUOUS/01	0.18
C-EROS-CNTE	CONSTRUCTION ENTRANCE	5	CONTINUOUS/02	0.25
C-EROS-DDIV	DRAINAGE DIVIDES	7	CONTINUOUS/03	0.35



LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
C-EROS-DVDK	DIVERSION DIKE	7	CONTINUOUS/03	0.35
C-EROS-IDEN	EROSION AND SEDIMENT CONTROL	2	CONTINUOUS/02	0.25
C-EROS-INPR		2	CONTINUOUS/01	0.18
C-EROS-SILT	SILT FENCE	4	CONTINUOUS/02	0.25
C-EROS-SILT- CHCK	SILT CHECK	4	CONTINUOUS/02	0.25
C-EROS-SILT-	SILT TRAP	4	CONTINUOUS/02	0.25
C-FLHA-025Y	25 YEAR MARK	5	DIVIDE	0.25
C-FLHA-050Y	50 YEAR MARK	4	DASHED	0.25
C-FLHA-100Y	100 YEAR MARK	5	CONTINUOUS/02	0.25
C-FLHA-200Y	200 YEAR MARK	4	DASHED2	0.25
C-FLHA-500Y	500 YEAR MARK	5	CENTER2/72	0.25
C-FLHA-IDEN	FLOOD HAZARD AREA ANNOTATION	4	CONTINUOUS/02	0.25
C-FLOD-BASE	FLOODWALL BASE OF WALL	6	CONTINUOUS/03	0.35
C-FLOD-BASE-	FLOODWALL BASE OF WALL ANNOTATION	6	CONTINUOUS/02	0.25
C-FLOD-CNTR	FLOODWALL CENTERLINE	6	CENTER2/70	0.13
C-FLOD-CNTR-		6		0.25
		5		0.25
C-FLOD-DRAN-		5		0.25
				0.25
C-FLOD-PILE C-FLOD-PILE-	FLOODWALL SHEET FILING	22	CONTINUOU3/03	0.55
IDEN	FLOODWALL SHEET PILING ANNOTATION	22	CONTINUOUS/02	0.25
C-FLOD-TOE	FLOODWALL TOE OUTLINE	7	CONTINUOUS/02	0.25
C-FLOD-TOP	FLOODWALL TOP OF WALL	4	CONTINUOUS/03	0.35
IDEN	FLOODWALL TOP OF WALL ANNOTATION	6	CONTINUOUS/02	0.25
C-FUEL-ABND- PIPE	ABANDONED PIPING	5	DASHED2	0.25
C-FUEL-BERM	BERMS FOR RETAINING FUEL IN CASE OF RUPTURE	5	CONTINUOUS/02	0.25
C-FUEL-DEFL- PIPE	DEFUELING PIPING	5	CONTINUOUS/02	0.25
	AIR ELIMINATORS, FILTER STRAINERS, VENTS,	5		0.25
C-FLIFL-FLOW		5		0.25
	CAPS CROSSES AND TEES	5		0.25
		1		0.25
	JUNCTION BOXES, MANHOLES, HANDHOLES,	4		0.25
C-FUEL-JBOX		3	CONTINUOUS/02	0.25
PIPE	MAIN FUEL PIPING	5	CONTINUOUS/02	0.25
C-FUEL-METR	METERS	2	CONTINUOUS/02	0.25
HYDT	HYDRANT CONTROL PITS	2	CONTINUOUS/02	0.25
IDEN	IDENTIFIER TAGS, SYMBOL MODIFIER, AND TEXT	2	CONTINUOUS/02	0.25



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LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
C-FUEL-PITS-		2		0.25
C-FUEL-PITS-		2	001111100003/02	0.20
VENT C-EUEL-SERV-	VENT PITS	2	CONTINUOUS/02	0.25
PIPE	SERVICE PIPING	5	CONTINUOUS/02	0.25
C-FUEL-STNS- IDEN	IDENTIFIER TAGS, SYMBOL MODIFIER, AND TEXT	4	CONTINUOUS/02	0.25
PUMP	BOOSTER PUMP STATIONS	5	CONTINUOUS/02	0.25
C-FUEL-TANK	FUEL TANKS	2	CONTINUOUS/02	0.25
C-FUEL-TRCH	FUEL LINE TRENCH	2	CONTINUOUS/02	0.25
C-GRAD-ALOW	ALLOWABLE OVER DEPTH	5	CONTINUOUS/02	0.25
C-GRAD-BNCH	BENCH CUT	5	CONTINUOUS/02	0.25
C-GRAD-DSGN	DESIGN GRADE (PROPOSED)	2	CONTINUOUS/02	0.25
C-GRAD-EXCV	EXCAVATION GRADE	7	CONTINUOUS/03	0.35
C-GRAD-EXST	EXISTING GRADE, GROUND LINE	5	DASHED	0.25
C-GRAD-FNSH	FINISHED GRADE	7	CONTINUOUS/03	0.35
C-GRAD-FNSH- PRP1	PROPOSED SURFACE #1	9	CONTINUOUS/02	0.25
C-GRAD-FINSH- PRP2	PROPOSED SURFACE #2	9	CONTINUOUS/02	0.25
PRP3	PROPOSED SURFACE #3	9	CONTINUOUS/02	0.25
C-GRAD-FNSH- PRP4	PROPOSED SURFACE #4	9	CONTINUOUS/02	0.25
C-GRAD-GTXL	GEOTEXTILE PLACEMENT GRADE	3	CONTINUOUS/01	0.18
C-GRAD-IDEN	GRADE ANNOTATION FOR CROSS SECTIONS AND PROFILES	4	CONTINUOUS/02	0.25
C-GRAD-REQD	REQUIRED DEPTH	5	CONTINUOUS/02	0.25
C-GRAD-SCLN	STABILITY CONTROL LINE	1	CENTER2/73	0.35
C-GRAD-WATR	WATER SURFACE IN SECTION VIEW	4	CONTINUOUS/02	0.25
C-GRID-FRAM	FRAME	7	CONTINUOUS/02	0.35
C-GRID-MAJR	MAJOR GRID LINES	9	DOT2/12	0.25
C-GRID-MINR	MINOR GRID LINES	9	DOT2/10	0.13
C-GRID-TEXT	BORDER TEXT, ANNOTATION	4	CONTINUOUS/02	0.25
C-HELI-BLST	BLAST PAD AND STOPWAY MARKINGS	3	CONTINUOUS/02	0.25
C-HELI-CNTR	CENTERLINE MARKINGS	3	CENTER2/72	0.25
C-HELI-DISP	DISPLACED THRESHOLD MARKINGS	3	CONTINUOUS/02	0.25
C-HELI-DIST	FIXED DISTANCE MARKINGS	3	CONTINUOUS/02	0.25
C-HELI-IDEN	HELIPORT NUMBERS AND LETTERS	4	CONTINUOUS/02	0.25
C-HELI-SHLD	SHOULDER MARKINGS	5	CONTINUOUS/02	0.25
C-HELI-SIDE	SIDE STRIPES	7	CONTINUOUS/03	0.35
C-HELI-TDZM	TOUCHDOWN ZONE MARKERS	5	CONTINUOUS/02	0.25
C-HELI-THRS	THRESHOLD MARKERS	5	CONTINUOUS/02	0.25
C-INDW-ABND-		Г		0.05
		5		0.25
C-INDW-DEVC	GRIT CHAMBERS, METERS, FLUMES, VALVES, ETC.	5	CONTINUOU/02S	0.25



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LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
C-INDW-FLOW	FLOW DIRECTION ARROWS	5	CONTINUOUS/02	0.25
C-INDW-FTTG	CAPS AND CLEANOUTS	5	CONTINUOUS/02	0.25
C-INDW-IDEN	IDENTIFIER TAGS, SYMBOL MODIFIER, AND TEXT	4	CONTINUOUS/02	0.25
C-INDW-JBOX	JUNCTION BOXES AND MANHOLES	3	CONTINUOUS/02	0.25
C-INDW-LAGN	LAGOONS	5	CONTINUOUS/02	0.25
C-INDW-LAGN- IDEN	IDENTIFIER TAGS, SYMBOL MODIFIER, AND TEXT	5	CONTINUOUS/02	0.25
PIPE	MAIN INDUSTRIAL WASTE WATER PIPING	5	CONTINUOUS/02	0.25
C-INDW-PLNT	TREATMENT PLANTS	5	CONTINUOUS/02	0.25
PIPE	INDUSTRIAL WASTE WATER SERVICE PIPING	3	CONTINUOUS/02	0.25
C-INDW-SIGN	SURFACE MARKERS/SIGNS	3	CONTINUOUS/02	0.25
C-INDW-STNS- IDEN	IDENTIFIER TAGS, SYMBOL MODIFIER, AND TEXT	4	CONTINUOUS/02	0.25
LIFT	LIFT STATIONS IRRIGATION FOUIPMENT (E.G., CONTROLLERS,	5	CONTINUOUS/02	0.25
C-IRRG-EQPM	VALVES, ETC.)	5	CONTINUOUS/02	0.25
C-IRRG-IDEN	IRRIGATION ANNOTATION	4	CONTINUOUS/02	0.25
C-IRRG-PIPE	IRRIGATION PIPING	5	CONTINUOUS/02	0.25
C-IRRG-WELL	IRRIGATION WELLS	2	CONTINUOUS/01	0.18
C-LEVE-BANK- IDEN	LEVEE TOP OF BANK ANNOTATION	6	CONTINUOUS/01	0.18
C-LEVE-BERM	LEVEE BERM OUTLINE	5	CONTINUOUS/02	0.25
C-LEVE-BNCH	LEVEE BENCH DESIGN FEATURE LINES (BREAKLINES FORM DTMS)	6	CONTINUOUS/02	0.25
IDEN	LEVEE BENCH ANNOTATION	4	CONTINUOUS/01	0.18
C-LEVE-BRRW	BORROW LIMITS	7	CONTINUOUS/03	0.35
C-LEVE-CNTR	LEVEE CENTERLINE	6	CENTER2/70	0.13
C-LEVE-CNTR- IDEN	LEVEE CENTERLINE ANNOTATION	6	CONTINUOUS/02	0.25
C-LEVE-IDEN	LEVEE ANNOTATION	4	CONTINUOUS/02	0.25
C-LEVE-OTLN	LEVEE OUTLINE	7	CONTINUOUS/03	0.35
C-LEVE-SLOP	LEVEE SLOPE INDICATOR WITH ANNOTATION	4	CONTINUOUS/02	0.25
C-LEVE-STAN	LEVEE STATIONING	4	CONTINUOUS/02	0.25
C-LEVE-TOE	LEVEE TOE	6	DASHED2	0.25
C-LEVE-TOE- IDEN	LEVEE TOE ANNOTATION	6	CONTINUOUS/01	0.18
C-LEVE-TOPB	LEVEE TOP OF BANK	4	CONTINUOUS/02	0.25
C-NGAS-ABND- PIPE		5	DASHED2	0.25
C-NGAS-DEVC	ETC.	5	CONTINUOUS/02	0.25
IDEN	IDENTIFIER TAGS, SYMBOL MODIFIER, AND TEXT	5	CONTINUOUS/02	0.25
C-NGAS-FLOW	FLOW DIRECTION ARROWS	5	CONTINUOUS/02	0.25
C-NGAS-FTTG	CAPS, CROSSES, AND TEES	5	CONTINUOUS/02	0.25



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C-NGAS-IDEN C-NGAS-MAIN- PIPEIDENTIFIER TAGS, SYMBOL MODIFIER, AND TEXT4CONTINUOUS/020.25MAIN NATURAL GAS PIPING5GAS_LINE0.25	25
C-NGAS-MAIN- PIPE MAIN NATURAL GAS PIPING 5 GAS_LINE 0.25	
	25
C-NGAS-METR METERS 2 CONTINUOUS/02 0.25	25
C-NGAS-PITS- IDEN IDENTIFIER TAGS, SYMBOL MODIFIER, AND TEXT 3 CONTINUOUS/02 0.25	25
	25
C-NGAS-PITS-	
VENT VENT PITS 2 CONTINUOUS/02 0.25 C-NGAS-SERV-	25
PIPE SERVICE PIPING 3 CONTINUOUS/02 0.25	25
C-NGAS-SIGN SURFACE MARKERS/SIGNS 3 CONTINUOUS/02 0.25	25
IDENTIFIER TAGS, SYMBOL MODIFIER, AND TEXT 4 CONTINUOUS/02 0.25	25
C-NGAS-STNS- PUMP COMPRESSOR STATIONS 5 CONTINUOUS/02 0.25	25
C-NGAS-STNS- REDC REDUCING STATIONS 5 CONTINUOUS/02 0.25	25
C-NGAS-TANK TANKS 2 CONTINUOUS/02 0.18	8
C-OBST-AIRS AIRSPACE OBSTRUCTIONS 2 CONTINUOUS/02 0.25	25
	05
C-OVENI-CNTR CENTERLINES 3 CENTER2/71 0.15	18
C-OVRN-CNTR-	10
IDEN CENTERLINE ANNOTATION 4 CONTINUOUS/02 0.25	25
C-OVRN-IDEN AIRFIELD OVERRUN AREA - ANNOTATION 4 CONTINUOUS/02 0.25	25
C-OVRN-OTLN AIRFIELD OVERRUN AREA - OUTLINES 7 CONTINUOUS/02 0.25	25
C-OVRN-SHLD- MRKG SHOULDER MARKINGS 7 CONTINUOUS/02 0.25	25
C-PADS-CNTR CENTERLINES 3 CENTER2/71 0.18	8
C-PADS-CNTR- IDEN CENTERLINE ANNOTATION 4 CONTINUOUS/02 0.25	25
C-PADS-IDEN PADS - ANNOTATION 4 CONTINUOUS/02 0.25	25
C-PADS-OTLN PAD - OUTLINES 7 CONTINUOUS/02 0.25	25
C-PADS-SHLD SHOULDERS WITH ANNOTATION 4 CONTINUOUS/01 0.18	8
C-PRKG-CARS GRAPHIC ILLUSTRATION OF CARS 4 CONTINUOUS/02 0.25	25
C-PRKG-CNTR PARKING LOT CENTERLINES 3 CENTER2/71 0.18	8
C-PRKG-CNTR- IDEN PARKING LOT CENTERLINE ANNOTATION 3 CONTINUOUS/01 0.18	8
C-PRKG-CURB CURBS AND GUTTERS 2 CONTINUOUS/02 0.25	25
C-PRKG-DRAN DRAINAGE SLOPE INDICATIONS 3 CONTINUOUS/02 0.25	25
PARKING LOT FIXTURES (WHEEL STOPS, PARKING C-PRKG-EIXT METERS) 176 CONTINUOUS/02 0.25	25
C-PRKG-FLNE FIRE LANES 3 CONTINUOUS/01 0.15	18
)5)5
	- <u>-</u> 25
	25
C-PRKG-SIGN SIGNS 4 CONTINUOUS/02 0.2F	25



LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
	CONSTRUCTION LIMITS/CONTROLS, STAGING	7		0.70
		7		0.70
		5		0.70
		5		0.25
C-PROP-RWAY-		1		0.70
ACQU	RIGHT OF WAY TO BE ACQUIRED IN PERPETUITY	7	CONTINUOUS/05	0.70
C-PROP-SECT	SECTION LINES	5	CENTER2/73	0.35
IDEN	SECTION LINES ANNOTATION	5	CONTINUOUS/02	0.25
C-PROP-TSHP	TOWNSHIP/RANGE LINES	5	DASHDOT2/43	0.35
C-PROP-TSHP- IDEN	TOWNSHIP/RANGE LINES ANNOTATION	5	CONTINUOUS/02	0.25
C-PVMT-ASPH	PAVEMENT PATTERN - ASPHALT	9	CONTINUOUS/00	0.13
C-PVMT-CONC	PAVEMENT PATTERN - CONCRETE	9	CONTINUOUS/00	0.13
C-PVMT-GRVL	PAVEMENT PATTERN - GRAVEL	9	CONTINUOUS/00	0.13
	ROAD, PARKING LOT, RAILROAD, AIRFIELD PVMT			
C-PVMT-IDEN	ANNO	4	CONTINUOUS/01	0.18
C-PVMT-MRKG	PAVEMENT MARKINGS	4	CONTINUOUS/02	0.25
C-PVMT-MRKG	PAVEMENT MARKINGS	4	CONTINUOUS/02	0.25
C-PVMT-PATT	JOINT PATTERNS, TEXT AND DIMENSIONS	4	CONTINUOUS/02	0.25
C-RAIL-CNTR	RAILROAD TRACK CENTERLINES	3	CENTER2/71	0.18
IDEN	RAILROAD TRACK CENTERLINE ANNOTATION	3	CONTINUOUS/02	0.25
C-RAIL-EQPM	RAILROAD EQUIPMENT (E.G., GATES, SIGNALS)	176	CONTINUOUS/02	0.25
C-RAIL-IDEN	RAILROAD - ANNOTATION	5	CONTINUOUS/02	0.25
C-RAIL-TRAK	RAILROAD TRACKS	4	TRACKS	0.25
C-RIVR-BOTM	RIVER BOTTOM	1	CONTINUOUS/02	0.25
C-RIVR-CNTR	CENTERLINE OF RIVER	3	CENTER2/71	0.18
C-RIVR-EDGE	RIVER EDGE	1	CONTINUOUS/03	0.35
C-RIVR-IDEN	IDENTIFIER TAGS, SYMBOL MODIFIERS, AND TEXT	4	CONTINUOUS/02	0.25
C-RIVR-TOPB	TOP OF RIVER BANK	1	CONTINUOUS/02	0.25
C-ROAD-ASPH	ROAD OUTLINES - ASPHALT SURFACE	9	CONTINUOUS/01	0.18
C-ROAD-CNTR	ROAD CENTERLINES	3	CENTER2/71	0.18
C-ROAD-CNTR- IDEN	ROAD CENTERLINE ANNOTATION	3	CONTINUOUS/01	0.18
C-ROAD-CONC	ROAD OUTLINES - CONCRETE SURFACE	7	CONTINUOUS/01	0.18
C-ROAD-CURB	CURBS AND GUTTERS	5	CONTINUOUS/02	0.25
C-ROAD-GRAL	GUARD RAILS	5	CONTINUOUS/02	0.25
C-ROAD-GRVL	ROAD OUTLINES - GRAVEL SURFACE	6	CONTINUOUS/01	0.18
C-ROAD-IDEN	ROAD, STREET, HIGHWAY ANNOTATION	5	CONTINUOUS/02	0.25
C-ROAD-MRKG	PAVEMENT MARKINGS	4	CONTINUOUS/02	0.25
C-ROAD-PATT	JOINT PATTERNS, TEXT AND DIMENSIONS	4	CONTINUOUS/02	0.25
C-ROAD-SHLD	ROADWAY SHOULDER	5	CONTINUOUS/02	0.25
C-ROAD-SIGN	ROAD SIGNS	3	CONTINUOUS/01	0.18



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LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
C-ROAD-UPVD	ROAD OUTLINES - UNPAVED SURFACE	2	CONTINUOUS/01	0.18
C-RRAP-GABN	GABIONS	3	CONTINUOUS/01	0.18
C-RRAP-MATS	ARTICULATED CONCRETE MATS	2	CONTINUOUS/01	0.18
C-RRAP-RVMT	REVETMENTS	3	CONTINUOUS/01	0.18
C-RRAP-WEIR	WEIRS	2	CONTINUOUS/01	0.18
C-RUNW-BLST	BLAST PAD AND STOPWAY MARKINGS	3	CONTINUOUS/02	0.25
C-RUNW-CNTR	CENTERLINES	3	CENTER2/71	0.18
C-RUNW-CNTR- MRKG	CENTERLINE MARKINGS	3	CONTINUOUS/02	0.25
C-RUNW-DISP	DISPLACED THRESHOLD MARKINGS	3	CONTINUOUS/02	0.25
C-RUNW-DIST	FIXED DISTANCE MARKINGS	3	CONTINUOUS/02	0.25
C-RUNW-EDGE	AIRFIELD RUNWAY EDGES	5	CONTINUOUS/02	0.25
C-RUNW-IDEN	AIRFIELD RUNWAY ANNOTATION	4	CONTINUOUS/02	0.25
C-RUNW-SHLD	SHOULDER MARKINGS	5	CONTINUOUS/02	0.25
C-RUNW-SIDE	SIDE STRIPES	7	CONTINUOUS/02	0.25
C-RUNW-TDZM	TOUCHDOWN ZONE MARKERS	5	CONTINUOUS/02	0.25
C-RUNW-THRS	THRESHOLD MARKERS	5	CONTINUOUS/02	0.25
C-SECT-IDEN	COMPONENT IDENTIFICATION NUMBERS	4	CONTINUOUS/02	0.25
C-SECT-MBND	MATERIAL BEYOND SECTION CUT	1	CONTINUOUS/00	0.13
C-SECT-MCUT	STRUCTURES, ETC.	7	CONTINUOUS/00	0.13
C-SECT-PATT	TEXTURES AND HATCH PATTERNS	9	CONTINUOUS/02	0.13
C-SITE-BLIN	SITE BREAKLINE	2	DASHED2	0.25
C-SITE-FENC	FENCES	5	FENCELINE1	0.25
IDEN	FENCE ANNOTATION	5	CONTINUOUS/02	0.25
C-SITE-IDEN	SITE FEATURE ANNOTATION	5	CONTINUOUS/02	0.25
C-SITE-STRC	STRUCTURES (BRIDGES, SHEDS, FOUNDATIONS, ETC.)	22	CONTINUOUS/02	0.25
C-SITE-STRS	STAIRS AND RAMPS	5	CONTINUOUS/02	0.25
C-SITE-WALK	WALKS, TRAILS AND BICYCLE PATHS	4	CONTINUOUS/02	0.25
C-SSWR-ABND- PIPE	ABANDONED PIPING	5	DASHED2	0.25
C-SSWR-DEVC C-SSWR-DEVC-	GREASE TRAPS, GRIT CHAMBERS, FLUMES, VALVES ETC.	5	CONTINUOUS/02	0.25
IDEN	IDENTIFIER TAGS, SYMBOL MODIFIER, AND TEXT	5	CONTINUOUS/01	0.18
C-SSWR-FILT	FILTRATION BEDS	2	CONTINUOUS/02	0.25
C-SSWR-FILT- IDEN	IDENTIFIER TAGS, SYMBOL MODIFIER, AND TEXT	2	CONTINUOUS/02	0.25
C-SSWR-FLOW	FLOW DIRECTION ARROWS	5	CONTINUOUS/02	0.25
C-SSWR-FTTG	CAPS AND CLEANOUTS	5	CONTINUOUS/02	0.25
C-SSWR-IDEN	IDENTIFIER TAGS, SYMBOL MODIFIER, AND TEXT	4	CONTINUOUS/02	0.25
C-SSWR-JBOX	JUNCTION BOXES AND MANHOLES	3	CONTINUOUS/02	0.25
IDEN	IDENTIFIER TAGS, SYMBOL MODIFIER, AND TEXT	3	CONTINUOUS/02	0.25



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LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
C-SSWR-LAGN	LAGOONS	2	CONTINUOUS/02	0.25
C-SSWR-LEAC	LEACH FIELD	2	CONTINUOUS/02	0.25
C-SSWR-MAIN- PIPE	SANITARY SEWER PIPING	5	CONTINUOUS/02	0.25
C-SSWR-NITF	NITRIFICATION DRAIN FIELDS	2	CONTINUOUS/02	0.25
C-SSWR-PLNT	TREATMENT PLANTS	5	CONTINUOUS/02	0.25
C-SSWR-SERV- PIPE	SANITARY SEWER SERVICE PIPING	3	CONTINUOUS/02	0.25
C-SSWR-SIGN	SURFACE MARKERS/SIGNS	3	CONTINUOUS/02	0.25
C-SSWR-STNS- IDEN	IDENTIFIER TAGS, SYMBOL MODIFIER, AND TEXT	4	CONTINUOUS/02	0.25
PUMP	BOOSTER PUMP STATIONS	5	CONTINUOUS/02	0.25
C-SSWR-TANK	SEPTIC TANKS	2	CONTINUOUS/02	0.25
C-STRM-ABND- PIPE	ABANDONED PIPING	5	DASHED2	0.25
C-STRM-AFFF	AFFF LAGOON/DETENTION POND	2	CONTINUOUS/02	0.25
C-STRM-CHUT	CHUTES AND CONCRETE EROSION CONTROL STRUCTURES	3	CONTINUOUS/02	0.25
C-STRM-CULV	CULVERTS	2	CONTINUOUS/02	0.25
C-STRM-DEVC	DOWNSPOUTS, FLUMES, OIL/WATER SEPARATORS, GATES	5	CONTINUOUS/02	0.25
C-STRM-FLOW	FLOW DIRECTION ARROWS	5	CONTINUOUS/02	0.25
C-STRM-FMON	FLOW MONITORING STATION	5	CONTINUOUS/02	0.25
C-STRM-FTTG	CAPS AND CLEANOUTS	5	CONTINUOUS/02	0.25
C-STRM-HWAL	HEADWALLS AND ENDWALLS	7	CONTINUOUS/03	0.35
C-STRM-IDEN	IDENTIFIER TAGS, SYMBOL MODIFIER, AND TEXT	4	CONTINUOUS/02	0.25
C-STRM-INLT	INLETS (CURB, SURFACE, AND CATCH BASINS)	2	CONTINUOUS/02	0.25
C-STRM-LAGN C-STRM-MAIN-	LAGOONS, PONDS, WATERSHEDS, AND BASINS	2	CONTINUOUS/02	0.25
PIPE	STORM SEWER PIPING	5	CONTINUOUS/02	0.25
C-STRM-MHOL	MANHOLES	3	CONTINUOUS/02	0.25
C-STRM-ROOF	ROOF DRAIN LINE	2	CONTINUOUS/02	0.25
PIPE	STORM SEWER SERVICE PIPING	3	CONTINUOUS/02	0.25
C-STRM-SIGN	SURFACE MARKERS/SIGNS	3	CONTINUOUS/02	0.25
IDEN	IDENTIFIER TAGS, SYMBOL MODIFIER, AND TEXT	4	CONTINUOUS/02	0.25
C-STRM-STNS- PUMP C-STRM-SUBS-	PUMP STATIONS	5	CONTINUOUS/02	0.25
PIPE	SUBSURFACE DRAIN PIPING	2	CONTINUOUS/02	0.25
C-SURV-DATA	SURVEY DATA (CONTROL POINTS OR MONUMENTS)	5	CONTINUOUS/02	0.25
C-SURV-IDEN	SURVEY, BASELINE, AND CONTROL LINE	5	CONTINUOUS/02	0.25
C-SURV-LINE	SURVEY, BASELINE, AND CONTROL LINES	7	DASHED2	0.25
C-TAXI-CNTR	CENTERLINES	3	CENTER2/71	0.18
IDEN	CENTERLINE ANNOTATION	4	CONTINUOUS/02	0.25



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LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
C-TAXI-CNTR- MRKG	CENTERI INF MARKINGS	3	CONTINUOUS/01	0.18
C-TAXI-EDGE	EDGE MARKINGS	7	CONTINUOUS/02	0.25
C-TAXI-HOLD	HOLDING LINES	4	CONTINUOUS/02	0.25
C-TAXI-IDEN	TAXIWAY - ANNOTATION	4	CONTINUOUS/02	0.25
C-TAXI-OTLN	TAXIWAY - OUTLINES	7	CONTINUOUS/02	0.25
C-TAXI-SHLD	SHOULDERS WITH ANNOTATION	4	CONTINUOUS/02	0.25
C-TOPO-BDRY- EXTR	SURFACE EXTERIOR BOUNDARY	2	CONTINUOUS/00	0.13
INTR	SURFACE INTERIOR BOUNDARY	3	DASHED2	0.13
C-TOPO-BKLN	BREAKLINES	7	DASHDOT2/43	0.35
C-TOPO-BNDY- EXTR	SURFACE EXTERIOR BOUNDARY	2	CONTINUOUS/00	0.13
C-TOPO-BNDY- INTR	SURFACE INTERIOR BOUNDARY	3	DASHED2	0.13
C-TOPO-BORE	BORING LOCATIONS AND TEXT	5	CONTINUOUS/02	0.25
C-TOPO-COOR	COORDINATE GRID TEXT ANNOTATION	23	CONTINUOUS/02	0.25
C-TOPO-COOR- LALO	LATITUDE AND LONGITUDE GRID TICKS	2	CONTINUOUS/01	0.18
STAT	STATE PLANE COORDINATE TICKS	2	CONTINUOUS/01	0.18
UTM	UTM COORDINATE TICKS	2	CONTINUOUS/01	0.18
C-TOPO-DTMO	DTM OBSCURE AREA BOUNDARY	5	CONTINUOUS/02	0.25
C-TOPO-DTMP	DTM POINTS	5	CONTINUOUS/02	0.25
C-TOPO-DTMT	DTM TRIANGLES	22	CONTINUOUS/02	0.25
C-TOPO-MAJR	TOPOGRAPHY MAJOR CONTOURS	4	CONTINUOUS/02	0.25
C-TOPO-MAJR- IDEN	MAJOR CONTOURS - ANNOTATION	4	CONTINUOUS/02	0.25
C-TOPO-MINR	TOPOGRAPHY MINOR CONTOURS	2	CONTINUOUS/01	0.18
C-TOPO-MINR- IDEN	MINOR CONTOURS - ANNOTATION	2	CONTINUOUS/01	0.18
C-TOPO-SHAP	INROADS GENERATED SHAPES/LINES	3	CONTINUOUS/01	0.18
C-TOPO-SHOR	SHORELINES, LAND FEATURES, AND REFERENCES	7	CONTINUOUS/02	0.25
C-TOPO-SLOP- FILL	CUT/FILL SLOPES	4	CONTINUOUS/02	0.25
IDEN	CUT/FILL SLOPE, TOP/TOE SLOPE ANNOTATION	4	CONTINUOUS/02	0.25
TOPT	TOP/TOE SLOPES	5	CONTINUOUS/02	0.25
C-TOPO-SOUN	SOUNDINGS AND OVERBANKS	7	CONTINUOUS/00	0.13
C-TOPO-SPOT	SPOT ELEVATIONS	4	CONTINUOUS/02	0.25
C-TOPO-SURF- PERI	SURFACE PERIMETER	2	CONTINUOUS/00	0.13
PONT	SURFACE FEATURE POINTS	7	CONTINUOUS/01	0.18
VOID	SURFACE VOID REGION	3	CONTINUOUS/00	0.13
C-TOPO-WATR	WATER LEVEL REFERENCE (LWRP, AFTER-GRADING LWRP, SWL, ETC)	7	DASHED	0.35



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LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
C-TRAF-IDEN	AIRFIELD TRAFFIC AREA ANNOTATION	4	CONTINUOUS/02	0.25
C-TRAF-TYPA	TYPE A TRAFFIC AREA	7	DASHDOT2/43	0.35
C-TRAF-TYPB	TYPE B TRAFFIC AREA	7	DIVIDE	0.35
C-TRAF-TYPC	TYPE C TRAFFIC AREA	7	CONTINUOUS/03	0.35
C-WETL-BOGS	BOGS	5	CONTINUOUS/02	0.25
C-WETL-IDEN	WETLAND ANNOTATION	4	CONTINUOUS/02	0.25
C-WETL-MRSH	FRESH WATER MARSHES	33	CONTINUOUS/02	0.25
C-WETL-MRSH- SALT	TIDAL SALTWATER MARSHES	33	CONTINUOUS/02	0.25
C-WETL-MRSH- TIDL	TIDAL FRESHWATER MARSH	33	CONTINUOUS/02	0.25
C-WETL-PCSN	POCOSINS	5	CONTINUOUS/02	0.25
C-WETL-PHOL	VERNAL POOLS, PLAYAS, WET MEADOWS, WET PRAIRIES	5	CONTINUOUS/02	0.25
C-WETL-RPRN	RIPARIAN FORESTED WETLANDS	33	CONTINUOUS/02	0.25
C-WETL-SLGH	SLOUGHS	33	CONTINUOUS/02	0.25
C-WETL-SWMP	SWAMPS	33	CONTINUOUS/02	0.25

ELECTRICAL- LEVEL/LAYER LIST

LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
E-AFLD-BCNS-	IDENTIFIER TAGS, SYMBOL MODIFIERS, AND			
IDEN	TEXT	45	CONTINUOUS/03	0.35
E-AFLD-BCNS-	MISCELLANEOUS NAVAIDS - WINDCONES AND			
MISC	BEACONS	45	CONTINUOUS/04	0.50
E-AFLD-BCNS-				
STRB	STROBE BEACONS	45	CONTINUOUS/04	0.50
E-AFLD-CIRC-CTRL	CONTROL AND MONITORING CIRCUITS	41	CONTINUOUS/04	0.50
	CIRCUIT IDENTIFIER TAGS, SYMBOL MODIFIER,			
E-AFLD-CIRC-IDEN	AND TEXT	4	CONTINUOUS/03	0.35
E-AFLD-CIRC-				
MULT	MULTIPLE CIRCUITS	46	CONTINUOUS/04	0.50
E-AFLD-CIRC-SERS	SERIES CIRCUITS	45	CONTINUOUS/04	0.50
E-AFLD-DBNK	DUCTBANKS	42	CONTINUOUS/04	0.50
	CAPACITORS, REGULATORS, MOTORS, BUSES,			
E-AFLD-DEVC	GENERATORS	46	CONTINUOUS/04	0.50
	JCT BOXES, PULL BOXES, MH'S, HANDHOLES,			
e-AFLD-JBOX	PEDESTALS	46	CONTINUOUS/04	0.50
E-AFLD-LITE-APPR	APPROACH LIGHTS	45	CONTINUOUS/04	0.50
E-AFLD-LITE-DIST	DISTANCE AND ARRESTING GEAR MARKERS	45	CONTINUOUS/04	0.50
E-AFLD-LITE-LANE	HOVERLANE, TAXILANE, AND HELIPAD LIGHTS	45	CONTINUOUS/04	0.50
E-AFLD-LITE-OBST	OBSTRUCTION LIGHTS	45	CONTINUOUS/04	0.50
E-AFLD-LITE-				
RUNW	RUNWAY LIGHTS	45	CONTINUOUS/04	0.50
E-AFLD-LITE-SIGN	TAXIWAY GUIDANCE SIGNS	45	CONTINUOUS/04	0.50
E-AFLD-LITE-TAXI	TAXIWAY LIGHTS	45	CONTINUOUS/04	0.50
E-AFLD-LITE-THRS	THRESHOLD LIGHTS	45	CONTINUOUS/04	0.50
E-AFLD-VALT	AIRFIELD LIGHTING VAULTS	45	CONTINUOUS/04	0.50
E-ALRM-EQPM	ALARM SYSTEM EQUIPMENT	45	CONTINUOUS/04	0.50
	IDENTIFIER TAGS, SYMBOL MODIFIERS, AND			
E-ALRM-IDEN	TEXT	4	CONTINUOUS/03	0.35
	WITNESS/EXTENSION LINES, DIM			
E-ANNO-DIMS	TERMINATORS, DIM TEXT	7	CONTINUOUS/01	0.18



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LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
	REFERENCE KEYNOTES WITH ASSOCIATED			
E-ANNO-KEYN	LEADERS	7	CONTINUOUS/01	0.18
E-ANNO-LEGN	LEGENDS AND SYMBOLS KEYS	7	CONTINUOUS/01	0.18
	TEXT/SHAPE MASK FOR USE WITH PHOTO			
E-ANNO-MASK	BACKGROUNDS	16	CONTINUOUS/01	0.18
E-ANNO-MATC	MATCH LINES	7	DASHDOT2/01	1.40
E-ANNO-NOTE	GENERAL NOTES AND GENERAL REMARKS	4	CONTINUOUS/03	0.35
E-ANNO-NPLT	NON-PLOTTING GRAPHIC INFORMATION	1	CONTINUOUS/01	0.18
	PATTERNING, POCHE, SHADING, AND			
E-ANNO-PATT	HATCHING	9	CONTINUOUS/01	0.18
E-ANNO-RDME	READ-ME INFORMATION	1	CONTINUOUS/01	0.18
E-ANNO-REDL	REDLINES	3	CONTINUOUS/02	0.25
E-ANNO-REVS	REVISIONS	7	CONTINUOUS/04	0.50
E-ANNO-SCHD	SCHEDULES	7	CONTINUOUS/01	0.18
E-ANNO-SYMB	MISCELLANEOUS SYMBOLS	5	CONTINUOUS/01	0.18
	MISC TEXT AND CALLOUTS WITH ASSOCIATED			
E-ANNO-TEXT	LEADERS	7	CONTINUOUS/01	0.18
E-BELL-EQPM	BELL SYSTEM EQUIPMENT	45	CONTINUOUS/04	0.50
	IDENTIFIER TAGS, SYMBOL MODIFIERS, AND			
E-BELL-IDEN	TEXT	4	CONTINUOUS/03	0.35
E-CABL-COAX	COAX CABLE	42	DASHED2	0.50
E-CABL-FIBR	FIBER OPTICS CABLE	42	CONTINUOUS/04	0.50
	IDENTIFIER TAGS, SYMBOL MODIFIERS, AND			
E-CABL-IDEN	TEXT	4	CONTINUOUS/03	0.35
E-CABL-MULT	MULTI-CONDUCTOR CABLE	42	CONTINUOUS/04	0.50
E-CABL-TRAY	CABLE TRAYS AND WIREWAYS	45	CONTINUOUS/04	0.50
E-CATH-ANOD	SACRIFICIAL ANODE SYSTEM	42	CONTINUOUS/04	0.50
E-CATH-CURR	IMPRESS CURRENT SYSTEM	42	CONTINUOUS/04	0.50
	IDENTIFIER TAGS, SYMBOL MODIFIER, AND			
E-CATH-IDEN	TEXT	42	CONTINUOUS/03	0.35
E-CATH-TEST	TEST STATIONS	42	CONTINUOUS/04	0.50
E-CATV-EQPM	CABLE TV SYSTEM EQUIPMENT	45	CONTINUOUS/04	0.50
	IDENTIFIER TAGS, SYMBOL MODIFIERS, AND			
E-CATV-IDEN	TEXT	4	CONTINUOUS/03	0.35
	CLOSED-CIRCUIT TELEVISION SYSTEM			
E-CCTV-EQPM	EQUIPMENT	45	CONTINUOUS/04	0.50
	IDENTIFIER TAGS, SYMBOL MODIFIERS, AND			
E-CCTV-IDEN	TEXT	4	CONTINUOUS/03	0.35
E-CLOK-EQPM	CLOCK SYSTEM EQUIPMENT	45	CONTINUOUS/04	0.50
	IDENTIFIER TAGS, SYMBOL MODIFIERS, AND			
E-CLOK-IDEN	TEXT	4	CONTINUOUS/03	0.35
	OTHER COMMUNICATIONS DISTRIBUTION			
E-COMM-EQPM	EQUIPMENT	46	CONTINUOUS/04	0.50
	COMM JUNCTION BOXES, PULL BOXES,			
E-COMM-JBOX	MANHOLES, ETC.	46	CONTINUOUS/04	0.50
	OVERHEAD COMMUNICATIONS/TELEPHONE			
E-COMM-OVHD	LINES	7	HIDDEN2/24	0.50
E-COMM-OVHD-	IDENTIFIER TAGS, SYMBOL MODIFIER AND			
IDEN	TEXT	7	CONTINUOUS/03	0.35
E-COMM-POLE	POLES	45	CONTINUOUS/04	0.50
E-COMM-POLE-				
GUYS	GUYING EQUIPMENT	45	CONTINUOUS/04	0.50
E-COMM-POLE-	IDENTIFIER TAGS, SYMBOL MODIFIERS, AND			
IDEN	TEXT	45	CONTINUOUS/03	0.35
	UNDERGROUND			
E-COMM-UGND	COMMUNICATIONS/TELEPHONE LINES	7	CONTINUOUS/04	0.50
E-COMM-UGND-	IDENTIFIER TAGS, SYMBOL MODIFIER AND			
IDEN	TEXT	7	CONTINUOUS/03	0.35



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LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
E-DBNK-MULT	DUCTBANK	42	CONTINUOUS/04	0.50
E-DBNK-MULT-	IDENTIFIER TAGS, SYMBOL MODIFIER AND			
IDEN	TEXT	42	CONTINUOUS/03	0.35
E-DETL-GRPH	GRAPHICS, GRIDLINES, NON-TEXT ITEMS	7	CONTINUOUS/01	0.18
E-DIAG-IDEN	METRIC SPECIFIC DIMENSIONS AND NOTES	4	CONTINUOUS/03	0.35
E-DICT-EQPM	CENTRAL DICTATION SYSTEM EQUIPMENT	45	CONTINUOUS/04	0.50
	IDENTIFIER TAGS, SYMBOL MODIFIERS, AND			
E-DICT-IDEN	TEXT	4	CONTINUOUS/03	0.35
	CLEARANCES & WORKING SPACE INFO (NEC			
E-DISC-INFO	CODE, ETC.)	2	CONTINUOUS/02	0.25
	ENERGY MONITORING CONTROL SYSTEM			
E-EMCS-EQPM	EQUIPMENT	45	CONTINUOUS/04	0.50
	IDENTIFIER TAGS, SYMBOL MODIFIERS, AND			
E-EMCS-IDEN	TEXT	4	CONTINUOUS/03	0.35
E-FLOR-IDEN	ROOM NAME, SPACE IDENTIFICATION TEXT	2	CONTINUOUS/02	0.25
	ROOM/SPACE IDENTIFICATION NUMBER AND	0		0.05
E-FLOR-NUMB	SYMBOL	2	CONTINUOUS/02	0.25
E-GRND-CIRC		/	CONTINUOUS/04	0.50
E-GRND-DIAG		41	CONTINUOUS/04	0.50
E-GRND-EQUI	EQUIPOTENTIAL GROUND SYSTEM	42	CONTINUOUS/04	0.50
E-GRND-REFR	REFERENCE GROUND SYSTEM	46	CONTINUOUS/04	0.50
E-INTC-EQPM		45	CONTINUOUS/04	0.50
	IDENTIFIER TAGS, SYMBOL MODIFIERS, AND	4		0.05
E-INTC-IDEN		4	CONTINUOUS/03	0.35
		10		
E-LITE-CIRC		42	CONTINUOUS/04	0.50
		4		0.25
L-LITE-CIRC-NUMD	CEILING MOUNTED (SUDEACE/DENDANT)	4	CONTINUOU3/03	0.35
E-LITE-CLNG	EIXTURES	15		0.50
E-LITE-EMER		46		0.50
E-LITE-EXIT		45		0.50
F-LITE-EXTR	EXTERIOR LIGHTS	45	CONTINUOUS/04	0.50
	EXTERIOR LIGHT IDEN TAGS SYMBOL	10		0.00
F-LITE-EXTR-IDEN	MODIFIERS, AND TEXT	45	CONTINUOUS/03	0.35
E-LITE-FLOR	FLOOR MOUNTED FIXTURES (E.G., STAGE)	45	CONTINUOUS/04	0.50
E-LITE-IDEN	LIGHT FIXTURE IDENTIFIER TAGS	4	CONTINUOUS/03	0.35
E-LITE-JBOX	JUNCTION BOXES	42	CONTINUOUS/04	0.50
	MAIN DIST PANELS, SWITCHBOARDS,			
E-LITE-PANL	LIGHTING PANELS	7	CONTINUOUS/04	0.50
E-LITE-ROOF	ROOF LIGHTING	45	CONTINUOUS/04	0.50
E-LITE-SPCL	SPECIAL FIXTURES	45	CONTINUOUS/04	0.50
	LIGHTING CONTACTORS, PHOTOELECTRIC			
E-LITE-SWCH	CONTROLS, ETC.	41	CONTINUOUS/04	0.50
E-LITE-WALL	WALL MOUNTED FIXTURES	45	CONTINUOUS/04	0.50
E-LTNG-COND	LIGHTNING PROTECTION CONDUCTORS	45	CONTINUOUS/04	0.50
E-LTNG-TERM	LIGHTNING PROTECTION TERMINALS	4	CONTINUOUS/03	0.35
E-NURS-EQPM	NURSE CALL/PAGING SYSTEM EQUIPMENT	45	CONTINUOUS/04	0.50
	IDENTIFIER TAGS, SYMBOL MODIFIERS, AND			
E-NURS-IDEN	TEXT	4	CONTINUOUS/03	0.35
E-POWR-BUSW	BUSWAYS	45	CONTINUOUS/04	0.50
	POWER CIRCUITS (CROSSLINES AND			
E-POWR-CIRC	HOMERUNS)	42	CONTINUOUS/04	0.50
E-POWR-CIRC-	POWER CIRCUIT NO'S (CIRCUIT NUMBER,			
NUMB	CONDUIT SIZE)	4	CONTINUOUS/03	0.35
	CEILING OUTLETS (RECEPTACLES AND	10		0.50
E-POWR-CLNG	SWITCHES)	42		0.50
E-POWR-DEVC	CAPACITORS, VOLTAGE REGULATORS,	46	CONTINUOUS/04	0.50



LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
	MOTORS, BUSES, ETC.			
E-POWR-FEED	FEEDERS	45	CONTINUOUS/04	0.50
E-POWR-GENR	GENERATORS AND AUXILIARY EQUIPMENT	7	CONTINUOUS/04	0.50
	JUNCTION BOX, PULL BOX, MH'S,			
E-POWR-JBOX	HANDHOLES, PEDESTALS	42	CONTINUOUS/04	0.50
E-POWR-MOTR	MOTORS AND UTILIZATION EQUIPMENT	7	CONTINUOUS/04	0.50
	PANELBOARDS ,SWITCHBOARDS, MCC, UNIT			
E-POWR-PANL	SUBSTATIONS	7	CONTINUOUS/04	0.50
E-POWR-POLE	POWER POLES	45	CONTINUOUS/04	0.50
E-POWR-POLE-				
GUYS	GUYING EQUIPMENT	45	CONTINUOUS/04	0.50
E-POWR-POLE-	IDENTIFIER TAGS, SYMBOL MODIFIERS, AND			
IDEN	TEXT	45	CONTINUOUS/03	0.35
E-POWR-SUBS	OTHER SUBSTATION EQUIPMENT	46	CONTINUOUS/04	0.50
	FUSE CUTOUTS, STARTERS, CONTACTORS,			
E-POWR-SWCH	SWITCHES, ETC.	41	CONTINUOUS/04	0.50
E-POWR-URAC	UNDERFLOOR RACEWAYS	45	DASHED	0.50
	WALL/FLOOR OUTLETS (RECEPTACLES AND			
E-POWR-WALL	SWITCHES)	42	CONTINUOUS/04	0.50
E-POWR-XFMR-				0.50
	PAD MOUNTED TRANSFORMERS	46	CONTINUOUS/04	0.50
E-POWR-XFMR-				0.50
		46		0.50
E-PRIM-OVHD		/	HIDDEN/54	0.50
E-PRIIVI-UVHD-	TEVT	7		0.25
		/		0.35
		12	CONTINUOUS/04	0.50
	TEVT	10		0.25
		12		0.55
		41	TIIDDLNZ/24	0.50
	TEYT	41		0.35
		60		0.50
E-SECD-UGND-	IDENTIFIER TAGS SYMBOL MODIFIERS AND	00	0000000000	0.30
IDFN	TEXT	60	CONTINUOUS/03	0.35
E-SERT-ACCS	ACCESS CONTROL SYSTEM	46	CONTINUOUS/04	0.50
E-SERT-CLNG		46		0.50
E-SERT-FLOR	FLOOR MOUNTED SENSORS	46	CONTINUOUS/04	0.50
	IDENTIFIER TAGS, SYMBOL MODIFIERS, AND	10		0100
E-SERT-IDEN	TEXT	4	CONTINUOUS/03	0.35
E-SERT-UNDR	BURIED SENSORS	46	CONTINUOUS/04	0.50
E-SERT-WALL	WALL MOUNTED SENSORS	46	CONTINUOUS/04	0.50
E-SOUN-EQPM	SOUND/PA SYSTEM EQUIPMENT	45	CONTINUOUS/04	0.50
	IDENTIFIER TAGS, SYMBOL MODIFIERS, AND			
E-SOUN-IDEN	TEXT	4	CONTINUOUS/03	0.35
E-SPCL-SYST	SPECIAL SYSTEMS (UMCS, EMCS, CATV, ETC.)	45	CONTINUOUS/04	0.50
E-SPCL-SYST-IDEN	SPECIAL SYSTEMS ANNOTATION	45	CONTINUOUS/03	0.35
E-SPCL-TRAF	TRAFFIC SIGNAL SYSTEM	45	CONTINUOUS/04	0.50
	TRAFFIC SIGNAL IDEN TAGS, SYMBOL			
E-SPCL-TRAF-IDEN	MODIFIER, AND TEXT	45	CONTINUOUS/03	0.35
E-TVAN-EQPM	TELEVISION ANTENNA SYSTEM EQUIPMENT	45	CONTINUOUS/04	0.50
	IDENTIFIER TAGS, SYMBOL MODIFIERS, AND	1		
E-TVAN-IDEN	TEXT	4	CONTINUOUS/03	0.35



FIRE-	LEVEL	/LAYER	LIST
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				WEIGHT
		10		
		10		0.35
		10	CONTINUOU3/03	0.35
	TEDMINATORS DIM TEVT	7		0.10
T-ANNO-DIVIS		1	00011100003/01	0.16
Ε ΑΝΙΝΙΟ ΚΕΥΝΙ	LEADERS	7		0.18
		7		0.10
F-ANNO-MATC	MATCH LINES	7		1.40
	GENERAL NOTES AND GENERAL REMARKS	/		0.35
		4		0.33
	PATTERNING POCHE SHADING AND	1	000000000000000000000000000000000000000	0.10
F-ΔΝΝΟ-ΡΔΤΤ	HATCHING	Q		0.18
		, 1		0.18
	REDUNES	3		0.10
F-ANNO-REVS	REVISIONS	7		0.20
	SCHEDULES	7		0.00
F-ANNO-SYMB		5		0.18
	MISCIEL AND CALLOUTS WITH	0	001111100003/01	0.10
F-ANNO-TEXT	ASSOCIATED FADERS	7	CONTINUOUS/01	0.18
F-CO2S-FOPM	FOUIPMENT	5	CONTINUOUS/03	0.35
1 0020 EQ111	CO2 PIPING OR CO2 DISCHARGE NO77LE	0		0.00
F-CO2S-PIPE	PIPING	5	CONTINUOUS/03	0.35
F-CTRL-PANL	CONTROL PANELS	46	CONTINUOUS/04	0.50
F-DETL-GRPH	GRAPHICS, GRIDLINES, NON-TEXT ITEMS	7	CONTINUOUS/01	0.18
F-FLOR-IDEN	ROOM NAME, SPACE IDENTIFICATION TEXT	2	CONTINUOUS/02	0.25
	ROOM/SPACE IDENTIFICATION NUMBER AND			
F-FLOR-NUMB	SYMBOL	2	CONTINUOUS/02	0.25
F-HALN-EQPM	EQUIPMENT	22	CONTINUOUS/03	0.35
F-HALN-PIPE	PIPING	22	CONTINUOUS/03	0.35
F-IGAS-EQPM	EQUIPMENT	33	CONTINUOUS/03	0.35
F-IGAS-PIPE	PIPING	33	CONTINUOUS/03	0.35
F-LITE-EMER	EMERGENCY FIXTURES	46	CONTINUOUS/04	0.50
F-LITE-EXIT	EXIT FIXTURES	45	CONTINUOUS/04	0.50
F-LSFT-EGRE	EGRESS REQUIREMENTS DESIGNATOR	5	CONTINUOUS/03	0.35
F-LSFT-OCCP	OCCUPANT LOAD FOR EGRESS CAPACITY	5	CONTINUOUS/03	0.35
F-LSFT-TRVL	MAXIMUM TRAVEL DISTANCES	5	CONTINUOUS/03	0.35
F-PROT-ALRM-				
INDC	INDICATING APPLIANCES	42	CONTINUOUS/04	0.50
F-PROT-ALRM-				
MANL	MANUAL FIRE ALARM PULL STATIONS	46	CONTINUOUS/04	0.50
F-PROT-EXTI	FIRE EXTINGUISHERS	4	CONTINUOUS/03	0.35
F-PROT-EXTI-				
CABN	FIRE EXTINGUISHER CABINETS	4	CONTINUOUS/03	0.35
F-PROT-HOSE	FIRE HOSES	4	CONTINUOUS/03	0.35
F-PROT-HOSE-				
CABN	FIRE HOSE CABINETS	4	CONTINUOUS/03	0.35
F-PROT-SMOK	SMOKE DETECTORS AND HEAT SENSORS	46	CONTINUOUS/04	0.50
F-RATE-DOOR	DOOR FIRE RATINGS	7	CONTINUOUS/04	0.50
F-RATE-WALL	WALL FIRE RATINGS	7	CONTINUOUS/04	0.50
F-SMOK-DMPR	DAMPERS	22	CONTINUOUS/03	0.35



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LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
F-SPKL-CLHD	SPRINKLER - CEILING HEADS	23	CONTINUOUS/03	0.35
F-SPKL-OTHD	SPRINKLER - OTHER HEADS	23	CONTINUOUS/03	0.35
F-SPKL-PIPE	SPRINKLER PIPING	7	CONTINUOUS/04	0.50
F-SPKL-STAN	STANDPIPE SYSTEM	23	CONTINUOUS/03	0.35
F-WATR-CONN	FIRE DEPARTMENT CONNECTIONS	23	CONTINUOUS/03	0.35
F-WATR-HYDT	HYDRANTS	23	CONTINUOUS/03	0.35
F-WATR-PIPE	PIPING	7	CONTINUOUS/04	0.50
F-WATR-PUMP	FIRE PUMPS	23	CONTINUOUS/03	0.35

FIRE ALARM- LEVEL/LAYER LIST

LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
Default		0	CONTINUOUS	0.00
F-ALRM-24VP-CIRC	24 VAC POWER CIRCUIT	3	24VDC_POWER_LOOP	0.50
F-ALRM-24VP-NPLT	24 VAC POWER NON-PLOTTING INFORMATION	0	CONTINUOUS/0	0.00
F-ALRM-24VP-TEXT	24 VAC POWER TEXT	3	CONTINUOUS/03	0.35
F-ALRM-COND-NPL	CONDUIT NON-PLOTTING INFORMATION	0	CONTINUOUS/0	0.00
F-ALRM-COND-				
OVHD	CONDUIT OVER-HEAD	12	PHANTON2/64	0.50
F-ALRM-COND-				
TEXT	CONDUIT TEXT	12	CONTINUOUS/03	0.35
F-ALRM-COND-				
UGND	CONDUIT UNDERGROUND	12	PHANTON2/64	0.50
F-ALRM-DATA-				
LOOP	SLC DATA LOOP	1	SLC_DATA_LOOP	0.50
F-ALRM-INIT-CIRC	INITIATING CIRCUIT	40	IDC_LOOP	0.50
F-ALRM-INIT-DEVC	INITIATING DEVICES	40	CONTINUOUS/03	0.35
F-ALRM-INIT-EXTG	INITIATING DEVICES EXISTING	42	HIDDEN2/23	0.35
F-ALRM-INIT-IDEN	INITIATING DEVICES IDENTIFICATION	40	CONTINUOUS/03	0.35
	INITIATING DEVICES NON-PLOTTING			
F-ALRM-INIT-NPLT	INFORMATION	0	CONTINUOUS/0	0.00
F-ALRM-INIT-TEXT	INITIATING DEVICES TEXT	40	CONTINUOUS/03	0.35
F-ALRM-JBOX-NPLT	J-BOXES NON-PLOTTING INFORMATION	0	CONTINUOUS/0	0.00
F-ALRM-JBOX-				
SYMB	J-BOXES	46	CONTINUOUS/03	0.35
F-ALRM-JBOX-TEXT	J-BOX TEXT	46	CONTINUOUS/03	0.35
F-ALRM-LEGN-INFC	FIRE ALARM LEGEND	3	CONTINUOUS/03	0.35
F-ALRM-MANL-				
DEVC	MANUAL FIRE ALARM PULL STATIONS	40	CONTINUOUS/03	0.35
F-ALRM-NOTF-CIRC	NOTIFICATION DEVICES CIRCUIT	5	NAC-CIRCUIT	0.50
F-ALRM-NOTF-				
DEVC	INDICATING DEVICES	30	CONTINUOUS/03	0.35
F-ALRM-NOTF-				
EXTG	NOTIFICATION DEVICES EXISTING	42	HIDDEN2/23	0.35
F-ALRM-NOTF-				
IDEN	NOTIFICATION DEVICES IDENTIFICATION	30	CONTINUOUS/03	0.35
F-ALRM-NOTF-	NOTIFICATION DEVICES NON-PLOTTING			
NPLT	INFORMATION	0	CONTINUOUS/0	0.00
F-ALRM-NOTF-				
ТЕХТ	NOTIFICATION DEVICE TEXT	30	CONTINUOUS/03	0.35



LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
F-ALRM-PANL-CIRC	PANEL EQUIPMENT CIRCUIT (CONT PNLS, AUX	1	VARIES	0.50
	PWR,)			
F-ALRM-PANL-	CONTROL PANELS, AUXILIARY POWER SUPPLY,			
EQPM	ANNUNCIATOR	1	CONTINUOUS/03	0.35
F-ALRM-PANL-				
EXTG	PANEL EQUIPMENT EXISTING	42	HIDDEN2/23	0.35
F-ALRM-PANL-IDEN	PANEL EQUIPMENT IDENTIFICATION	1	CONTINUOUS/03	0.35
	PANEL EQUIPMENT NON-PLOTTING			
F-ALRM-PANL-NPLT	INFORMATION	0	CONTINUOUS/0	0.00
F-ALRM-PANL-TEXT	PANEL EQUIPMENT TEXT	1	CONTINUOUS/03	0.35
F-ALRM-REVS-TEXT	REVISION TEXT	4	CONTINUOUS/03	0.35
F-ALRM-SPKR-CIRC	SPEAKER DEVICES CIRCUIT	4	SPEAKER	0.50
F-ALRM-SPKR-DEVC	SPEAKER DEVICES	4	CONTINUOUS/03	0.35
	SPEAKER DEVICES NON-PLOTTING			
F-ALRM-SPKR-NPLT	INFORMATION	0	CONTINUOUS/0	0.00
F-ALRM-SPKR-TEXT	SPEAKER DEVICES TEXT	4	CONTINUOUS/03	0.35
F-ALRM-ZONE	FIRE ALARM ZONE	7	DASHED	0.70
F-ALRM-ZONE-	FIRE ALARM ZONE NON-PLOTTING			
NPLT	INFORMATION	0	CONTINUOUS/0	0.00
F-ALRM-ZONE-				
TFXT	FIRE ALARM ZONE TEXT	7	CONTINUOUS/03	0.35
	WITNESS/EXTENSION LINES DIM TERMINATORS			0100
F-ANNO-DIMS	DIM TEXT	0	CONTINUOUS/02	0.25
	REFERENCE KEYNOTES WITH ASSOCIATED	0	00111100000,02	0120
F-ANNO-KFYN	FADERS	0	CONTINUOUS/02	0.25
F-ANNO-MATC	MATCHLINES	7	DASHDOT2/47	1.40
F-ANNO-NOTE	GENERAL NOTES AND GENERAL REMARKS	4	CONTINUOUS/02	0.25
F-ANNO-NPLT		0	CONTINUOUS/0	0.00
	PATTERNING POCHE SHADING AND	0		0.00
F-ANNO-PATT	HATCHING	9	CONTINUOUS/01	0.18
	READ-ME INFORMATION - NON-PLOTTING	,	00111100003/01	0.10
F-ANNO-RDMF	INFORMATION	7	CONTINUOUS/03	0.35
F-ANNO-SYMB		6		0.35
	MISCELLANEOUS TEXT AND CALLOUTS WITH	0	0011110003/03	0.00
E-ANNO-TEXT	ASSOCIATED I FADERS	6		0.25
	ROOM NAME SPACE IDENTIFICATION TEXT	0	000000000000000000000000000000000000000	0.23
		2		0.25
		Z	000000000000000000000000000000000000000	0.23
		2		0.25
		2	000000000000000000000000000000000000000	0.23
		0		0.00
		0	00011100003/0	0.00
	ΜΕΩΗΛΝΙΩΛΙ ΕΩΙΙΦΜΕΝΙΤ	4	DASHED	0.35
		4	DASITLD	0.55
		Λ		0.25
		4		0.00
		22		0.35
		U		0.00
	AKELO	U	COM HINDOD2/0	0.00



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GENERAL- LEVEL/LAYER LIST

LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
	SHEET-SPECIFIC DIM LINES, DIM			
G-ANNO-DIMS	TERMINATORS, DIM TEXT	7	CONTINUOUS/01	0.18
	SHEET-SPECIFIC REFERENCE KEYNOTES	7		0.10
G-ANNO-KETN		7		0.10
G-ANNO-LEGN	LEGENDS AND SYMBOLS KEYS	/	CONTINUOUS/01	0.18
G-ANNO-MASK	BACKGROUNDS	16	CONTINUOUS/01	0.18
G-ANNO-MATC	MATCH LINES	7	DASHDOT2/47	1.40
	SHEET-SPECIFIC NOTES AND GENERAL			
G-ANNO-NOTE	REMARKS	4	CONTINUOUS/03	0.35
G-ANNO-NPLT	NON-PLOTTING GRAPHIC INFORMATION	1	CONTINUOUS/01	0.18
	SHEET-SPEC PATTERNING, POCHE,			
G-ANNO-PATT	SHADING, HATCHING	9	CONTINUOUS/01	0.18
G-ANNO-RDME	READ-ME INFORMATION	1	CONTINUOUS/01	0.18
G-ANNO-REDL	REDLINES	3	CONTINUOUS/02	0.25
G-ANNO-REVS	REVISIONS	7	CONTINUOUS/04	0.50
G-ANNO-SCHD	SCHEDULES	7	CONTINUOUS/01	0.18
G-ANNO-SYMB	MISCELLANEOUS SYMBOLS	5	CONTINUOUS/03	0.35
	SHEET-SPECIFIC TEXT AND CALLOUTS			
G-ANNO-TEXT	WITH LEADERS	7	CONTINUOUS/01	0.18
G-ANNO-TTLB	BORDER AND TITLEBLOCK LINEWORK	7	CONTINUOUS/01	0.18
G-ANNO-TTLB-GRID	GRID LINES INSIDE BORDER	1	PHANTOM/61	0.18
	LATITUDE/LONGITUDE COORDINATE GRID	4		0.25
G-COOR-LALO IDEN		4		0.25
G-COOR-LALO-IDEN	LATITUDE/LONGITUDE COORDINATE TEXT	4	CONTINUOUS/02	0.25
G-COOR-STAT	STATE PLANE COORDINATE GRID TICKS	4	DASHED	0.25
G-COOR-STAT-IDEN	STATE PLANE COORDINATE TEXT	4	CONTINUOUS/02	0.25
G-GRID-COOR		7	CONTINUOUS/02	0.25
G-GRID-COOR-IDEN		7	CONTINUOUS/02	0.25
G-GRID-EXTR		1	CENTER2/71	0.18
G-GRID-IDEN		3	CONTINUOU/02S	0.25
G-PLAN-OTLN		5	CONTINUOUS/03	0.35
G-SITE-OTLN		5	CONTINUOUS/03	0.35

LANDSCAPE- LEVEL/LAYER LIST

LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
I -IRRG-FOPM	EQUIPMENT (E.G., CONTROLLERS, VALVES, RPBPS_ETC.)	5	CONTINUOUS/03	0.35
	IRRIGATION HEADS, BUBBLERS, AND DRIP	0		0.00
L-IRRG-HEAD	IRRIGATION EMITTERS	3	CONTINUOUS/02	0.25
L-IRRG-IDEN	ANNOTATION	4	CONTINUOUS/03	0.35
L-IRRG-PIPE	PIPING	5	CONTINUOUS/03	0.35
L-IRRG-SPKL	SPRINKLERS	5	CONTINUOUS/03	0.35
L-PLNT-BEDS	PLANTING BEDS (PERENNIAL AND ANNUAL BEDS)	5	CONTINUOUS/03	0.35
	BUSHES AND SHRUBS (E.G., EVERGREEN,			
L-PLNT-BUSH	DECIDUOUS, ETC.)	42	CONTINUOUS/04	0.50
L-PLNT-BUSH-LINE	BUSH AND SHRUB LINE	42	CONTINUOUS/04	0.50
L-PLNT-CTNR	CONTAINERS OR PLANTERS	3	CONTINUOUS/02	0.25
L-PLNT-GCVR	GROUNDCOVER AND VINES	18	CONTINUOUS/03	0.35



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LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
L-PLNT-IDEN	ANNOTATION	5	CONTINUOUS/03	0.35
L-PLNT-MLCH	MULCHES - ORGANIC AND INORGANIC	2	CONTINUOUS/02	0.25
L-PLNT-PLTS	PLANTING PLANTS (ORNAMENTAL ANNUALS AND PERENNIALS)	42	CONTINUOUS/04	0.50
L-PLNT-SHAD	SHADOW AREAS	1	CONTINUOUS/01	0.18
L-PLNT-SPRG	SPRIGS	2	CONTINUOUS/02	0.25
L-PLNT-TREE	TREES (E.G., EVERGREEN, DECIDUOUS, ETC.)	42	CONTINUOUS/04	0.50
L-PLNT-TREE-LINE	TREE LINE	42	CONTINUOUS/04	0.50
L-PLNT-TURF	LAWN AREAS (TURFING LIMITS)	46	CONTINUOUS/04	0.50
L-SITE-BRDG	BRIDGES (PEDESTRIAN)	22	CONTINUOUS/03	0.35
L-SITE-DECK	DECKS	177	CONTINUOUS/03	0.35
L-SITE-FENC	FENCING	4	FENCELINE1	0.35
L-SITE-FURN	FURNISHINGS	7	CONTINUOU/04S	0.50
L-SITE-IDEN	ANNOTATION	5	CONTINUOUS/03	0.35
L-SITE-PLAY	PLAY STRUCTURES	4	CONTINUOUS/03	0.35
L-SITE-POOL	POOLS AND SPAS	33	CONTINUOUS/03	0.35
L-SITE-ROCK	BOULDERS AND COBBLE	3	CONTINUOUS/02	0.25
L-SITE-RTWL	RETAINING WALLS	7	CONTINUOUS/04	0.50
L-SITE-SPRT	SPORTS FIELDS	4	CONTINUOUS/03	0.35
L-SITE-WALK	WALKS AND STEPS	7	CONTINUOUS/01	0.18

MECHANICAL- LEVEL/LAYER LIST

LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
	ACID, ALKALINE, AND OIL WASTE			
M-ACID-EQPM	EQUIPMENT	11	CONTINUOUS/03	0.35
	ACID, ALKALINE, AND OIL WASTE			0.50
M-ACID-PIPE	PIPING		CONTINUOUS/04	0.50
M-ACID-VENT	PIPING	11	DASHED2	0.50
M-AFRZ-EQPM	ANTI-FREEZE EQUIPMENT	18	CONTINUOUS/03	0.35
M-AFRZ-SPLY-PIPE	ANTI-FREEZE SUPPLY PIPING	18	CONTINUOUS/04	0.50
M-AFRZ-WAST-PIPE	ANTI-FREEZE WASTE PIPING	18	CONTINUOUS/04	0.50
	WITNESS/EXTENSION LINES, DIM			
M-ANNO-DIMS	TERMINATORS, DIM TEXT	7	CONTINUOUS/01	0.18
	REFERENCE KEYNOTES WITH	-		0.10
M-ANNO-KEYN	ASSOCIATED LEADERS	/	CONTINUOUS/01	0.18
M-ANNO-LEGN	LEGENDS AND SYMBOLS KEYS	7	CONTINUOUS/01	0.18
	TEXT/SHAPE MASK FOR USE WITH			
M-ANNO-MASK	PHOTO BACKGROUNDS	16	CONTINUOUS/01	0.18
M-ANNO-MATC	MATCH LINES	7	DASHDOT2/47	1.40
	GENERAL NOTES AND GENERAL			
M-ANNO-NOTE	REMARKS	4	CONTINUOUS/03	0.35
	NON-PLOTTING GRAPHIC	4		0.10
M-ANNO-NPLI			CONTINUOUS/01	0.18
	PATTERNING, POCHE, SHADING, AND	0		0.19
		9		0.10
M-ANNO-RDME	READ-ME INFORMATION	1	CONTINUOUS/01	0.18
M-ANNO-REDL	REDLINES	3	CONTINUOUS/02	0.25
M-ANNO-REVS	REVISIONS	7	CONTINUOUS/04	0.50
M-ANNO-SCHD	SCHEDULES	7	CONTINUOUS/01	0.18



LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
M-ANNO-SYMB	MISCELLANEOUS SYMBOLS	5	CONTINUOUS/01	0.18
	MISCELLANEOUS TEXT AND CALLOUTS	-		
M-ANNO-TEXT	WITH LEADERS	7	CONTINUOUS/01	0.18
M-BRIN-EQPM	BRINE SYSTEM EQUIPMENT	31	CONTINUOUS/03	0.35
M-BRIN-RETN-PIPE	BRINE SYSTEM RETURN PIPING	31	CONTINUOUS/04	0.50
M-BRIN-SPLY-PIPE	BRINE SYSTEM SUPPLY PIPING	21	CONTINUOUS/04	0.50
	CHEMICAL TREATMENT SYSTEM	0.1		0.05
M-CHEM-EQPM	EQUIPMENT	31	CONTINUOUS/03	0.35
M-CHEM-RETN-PIPE	RETURN PIPING	31	CONTINUOUS/04	0.50
	CHEMICAL TREATMENT SYSTEM	01		0.00
M-CHEM-SPLY-PIPE	SUPPLY PIPING	31	CONTINUOUS/04	0.50
M-CMPA-EQPM	EQUIPMENT	34	CONTINUOUS/03	0.35
M-CMPA-PIPE	PIPING	42	CONTINUOUS/04	0.50
	CONDENSER WATER SYSTEM			
M-CNDW-EQPM		52	CONTINUOUS/03	0.35
	CONDENSER WATER SYSTEM RETURN	12		0.50
	CONDENSER WATER SYSTEM SUPPLY	42	00000000	0.50
M-CNDW-SPLY-PIPE	PIPING	32	CONTINUOUS/04	0.50
M-CONT-THER	THERMOSTATS	3	CONTINUOUS/02	0.25
M-CONT-WIRE	LOW VOLTAGE WIRING	3	DOT2/12	0.25
M-CVAL-BASE	CULVERT VALVE MACHINERY BASE	4	CONTINUOUS/03	0.35
M-CVAL-BEAM	CULVERT VALVE BEAMS	4	CONTINUOUS/03	0.35
M-CVAL-CYLD	CULVERT VALVE MACHINERY CYLINDER	11	CONTINUOUS/03	0.35
M-CVAL-SEAL	CULVERT VALVE SEALS	2	CONTINUOUS/03	0.35
M-CVAL-SKIN	CULVERT VALVE SKIN PLATE	3	CONTINUOUS/03	0.35
M-CVAL-STIF	STIFFENER PLATES, ANGLES, ETC.	7	CONTINUOUS/03	0.35
M-CVAL-TRUN	CUIVERT VALVE TRUNNION BEAM	5	CONTINUOUS/03	0.35
M-CWTR-CNDS-PIPF	CONDENSATE PIPING	42	CONTINUOUS/04	0.50
M-CWTR-EOPM		41		0.35
M_CWTR_RETN_PIPE		41		0.50
		31		0.50
W GWHC3I EI THE	GRAPHICS, GRIDLINES, NON-TEXT	51	00111110003/04	0.00
M-DETL-GRPH	ITEMS	7	CONTINUOUS/01	0.18
	DUAL TEMPERATURE SYSTEM			
M-DUAL-EQPM		46	CONTINUOUS/03	0.35
M-DUAL-RETN-PIPE	DUAL TEMPERATURE SYSTEM RETURN	46		0.50
	DUAL TEMPERATURE SYSTEM SUPPLY		00111110003/04	0.00
M-DUAL-SPLY-PIPE	PIPING	36	CONTINUOUS/04	0.50
M-DUST-DUCT	DUST AND FUME DUCTWORK	45	CONTINUOUS/04	0.50
	DUST AND FUME DUCTWORK			
M-DUST-DUCT-CNTR	CENTERLINES	1	CENTER2/71	0.18
M-DUST-EQPM	DUST AND FUME EQUIPMENT	45	CONTINUOUS/03	0.35
M-DUST-GRIL		45	CONTINUOUS/03	0.35
M-FLEV-IDEN	NUMBERS	Л		0 25
		<u></u>		0.30
MELEV DATT		0		0.30
		7 10		0.10
		42		0.00
IVI-EARD-DUCT-CINTK	LAHAUST DUCTWORK CENTERLINES		GEINTEKZ//I	U. IŎ



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LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
M-EXHS-EQPM	EXHAUST EQUIPMENT	42	CONTINUOUS/03	0.35
M-EXHS-GRIL	GRILLES	42	CONTINUOUS/03	0.35
	ROOM NAME, SPACE IDENTIFICATION			
M-FLOR-IDEN		2	CONTINUOUS/02	0.25
M-FLOR-NUMB	NUMBER AND SYMBOL	2	CONTINUOUS/02	0.25
M-FUEL-DIES-RETN	DIESEL FUEL RETURN PIPING	46	CONTINUOUS/04	0.50
M-FUEL-DIES-SPLY	DIESEL FUEL SUPPLY PIPING	46	CONTINUOUS/04	0.50
M-FUEL-DIES-VENT	DIESEL FUEL VENT PIPING	46	CONTINUOUS/04	0.50
M-FUEL-EQPM	EQUIPMENT	38	CONTINUOUS/03	0.35
M-FUEL-GGEP-LQPG	LIQUID PETROLEUM GAS	66	CONTINUOUS/04	0.50
M-FUEL-OGEP-RETN	RETURN OIL PIPING	46	CONTINUOUS/04	0.50
M-FUEL-OGEP-SPLY	SUPPLY OIL PIPING	26	CONTINUOUS/04	0.50
M-FUEL-OGEP-VENT	OIL PIPING VENT	45	CONTINUOUS/04	0.50
M-GLYC-EQPM	GLYCOL SYSTEM EQUIPMENT	18	CONTINUOUS/03	0.35
M-GLYC-RETN-PIPE	GLYCOL SYSTEM RETURN PIPING	18	CONTINUOUS/04	0.50
M-GLYC-SPLY-PIPE	GLYCOL SYSTEM SUPPLY PIPING	28	CONTINUOUS/04	0.50
	GEOTHERMAL HEAT PUMP SYSTEM			
M-GTHP-EQPM		45	CONTINUOUS/03	0.35
		15		0.50
	GEOTHERMAL HEAT PUMP SYSTEM	43	0000000004	0.30
M-GTHP-SUPP-PIPE	SUPPLY PIPING	45	CONTINUOUS/04	0.50
M-HCSF-CYLD	HYDRAULIC CYLINDERS	7	CONTINUOUS/03	0.35
M-HCSF-CYLD-PSTN	HYDRAULIC CYLINDER PISTONS	1	CONTINUOUS/03	0.35
M-HCSF-CYLD-WEAR	WEAR RINGS	2	CONTINUOUS/03	0.35
M-HCSF-EQPM	HYDRAULIC SYSTEM EQUIPMENT	13	CONTINUOUS/03	0.35
M-HCSF-FTTG	HOSE AND PIPE FITTINGS	7	CONTINUOUS/03	0.35
M-HCSF-HOSE	HYDRAULIC HOSES	7	CONTINUOUS/03	0.35
M-HCSF-MOTR	HYDRAULIC MOTORS AND ACTUATORS	7	CONTINUOUS/03	0.35
M-HCSF-OTLN	OUTLINES OF MACHINERY	11	CONTINUOUS/03	0.35
	HYDRAULIC PUMPS AND PUMP	_		0.05
M-HCSF-PUMP	MOTORS	/	CONTINUOUS/03	0.35
M-HCSF-RETN-PIPE	HYDRAULIC SYSTEM RETURN PIPING	12	CONTINUOUS/04	0.50
M-HCSF-ROOM	SYSTEM ATTACHES TO	1	CONTINUOUS/03	0.35
	MISCELLANEOUS SCHEMATIC FIGURES			
M-HCSF-SCHM-MISC	(COMMON LOCATION)	5	CONTINUOUS/03	0.35
M-HCSF-SPLY-PIPE	HYDRAULIC SYSTEM SUPPLY PIPING	13	CONTINUOUS/04	0.50
M-HCSF-SUPT	PIPE SUPPORTS, HANGERS, ETC.	6	CONTINUOUS/03	0.35
M-HCSF-VALV	HYDRAULIC VALVES	5	CONTINUOUS/03	0.35
M-HCSE-VALV-CONT	HYDRAULIC DIRECTIONAL CONTROL	5	CONTINUOUS/03	0.35
	FLOW CONTROL VALVES, CHECK		00111110000,00	0.00
M-HCSF-VALV-FLOW	VALVES, ETC.	5	CONTINUOUS/03	0.35
	PRESSURE CONTROL VALVES: RELIEF	5		0.25
IVI-TUSE-VALV-PKES	HYDRAULIC SHUTOFF TYPE VALVES	0	000100003/03	0.30
M-HCSF-VALV-SOFF	(BALL, GATE, ETC.)	5	CONTINUOUS/03	0.35
	STILLING WELLS, ANCHORS, ANCHOR			
M-HCSW-DEVC	GUIDES, RECTIFIERS, ETC.	5	CONTINUOUS/03	0.35
M-HCSW-DEVC-IDEN	DEVICE IDENTIFIERS	5	CONTINUOUS/02	0.25



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NH-ICSW-FOPM-ACCS EQUIPMENT ACCESS DOORS 2 CONTINUOUS/02 0.25 M-HCSW-PUMP PUMP STATION FOUPMENT 5 CONTINUOUS/02 0.25 M-HCSW-PUMP-FICW FLOW DIRECTION ARROWS 2 CONTINUOUS/02 0.25 M-HCSW-PUMP-FICW CAPS AND FLANGES 5 CONTINUOUS/02 0.25 M-HCSW-PUMP-IDEN MODIFIERS, AND TEXT 4 CONTINUOUS/02 0.25 M-HCW-WIMP-PIPE VALVES 411 CONTINUOUS/03 0.35 M-HTCW-AND-PIPE ABANDONTO PIPING 3 DASHETD2 0.25 M-HTCW-CWTR-MAIN MAIN CHILLED WATER PIPING 411 CONTINUOUS/03 0.35 M-HTCW-CWTR PLNT CHILLED WATER PLANT 4 CONTINUOUS/03 0.35 M-HTCW-WIM RS SRV CHILLED WATER SERVICE PIPING 41 CONTINUOUS/03 0.35 M-HTCW-WIM RS SRV FLOW DIRECTION ARROWS 2 CONTINUOUS/03 0.35 M-HTCW-HWTR-MAIN MAIN HIGH ITMPI RATURE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-HWTR-MAIN MAIN HIGH ITMPI RATURE PIPING <th>LAYER</th> <th>DESCRIPTION</th> <th>COLOR</th> <th>LINETYPE</th> <th>WEIGHT</th>	LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
NH-CSW-PUMP PUMP STATION EQUIPMENT 5 CONTINUOUS/03 0.35 M-HCSW-PUMP-LOW ELGW DIRECTION ARROWS 2 CONTINUOUS/02 0.25 M-HCSW-PUMP-LOW CAPS AND FLANGES 5 CONTINUOUS/02 0.25 M-HCSW-PUMP-PITO CAPS AND FLANGES 5 CONTINUOUS/02 0.25 M-HCSW-PUMP-PIP VALVES) 41 CONTINUOUS/02 0.25 M-HTCW-CWTR-MAIN MAIN CHILLED WATER PIPING 41 CONTINUOUS/03 0.35 M-HTCW-CWTR-FRN CHILLED WATER SERVICE PIPING 41 CONTINUOUS/03 0.35 M-HTCW-LOWIR SERV CHILLED WATER SERVICE PIPING 41 CONTINUOUS/03 0.35 M-HTCW-LOWIR SERV CHILLED WATER SERVICE PIPING 41 CONTINUOUS/03 0.35 M-HTCW-HWTR-MAIN MAIN HIGH TEMPERATURE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-HWTR-MAIN MAIN HIGH TEMPERATURE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-HWTR-MAIN MAIN HIGH TEMPERATURE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-HWTR-MAIN <	M-HCSW-EQPM-ACCS	EQUIPMENT ACCESS DOORS	2	CONTINUOUS/02	0.25
M-H-GW-PUMP-FLOW FLOW DIRECTION ARROWS 2 CONTINUOUS/02 0.25 M-HCSW-PUMP-FTTG M-HCSW-PUMP-IDEN CAPS AND FLANGES 5 CONTINUOUS/02 0.25 M-HCSW-PUMP-IDEN PUMP DIENTIFIER TAGS, SYMBOL - - - - - 0.25 M-HCSW-PUMP-PIPE VALVES 41 CONTINUOUS/02 0.25 - - 0.25 M-HTCW-AND-PIPE VALVES 41 CONTINUOUS/03 0.35 -	M-HCSW-PUMP	PUMP STATION EQUIPMENT	5	CONTINUOUS/03	0.35
M-H-CSW-PUMP-FTG CAPS AND FLANGES 5 CONTINUOUS/03 0.35 M-HCSW-PUMP-IDEN MODIFERS AND TEXT 4 CONTINUOUS/02 0.25 M-HCSW-PUMP-IPE VIALVESI 41 CONTINUOUS/04 0.50 M-HCSW-PUMP-IPE ABANDONED PIPING 3 DASHED2 0.25 M-HTCW-CWTR-MAIN MAIN CHILLED WATER PIPING 41 CONTINUOUS/03 0.35 M-HTCW-CWTR-NAIN CHILLED WATER PLANT 41 CONTINUOUS/02 0.25 M-HTCW-CWTR-SLRW CHILLED WATER PLANT 41 CONTINUOUS/02 0.25 M-HTCW-WTR-VIA CHILLED WATER PLANT 41 CONTINUOUS/02 0.25 M-HTCW-WTR-VIA CHILLED WATER PLANT 41 CONTINUOUS/02 0.25 M-HTCW-HVTR-NAIN MAIN HIGH TEMPERATURE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-HWTR-MAIN MAIN HIGH TEMPERATURE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-HWTR-PINT HIGH TEMPERATURE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-HWTR-PINT HIGH TEMPERATURE PIPING <t< td=""><td>M-HCSW-PUMP-FLOW</td><td>FLOW DIRECTION ARROWS</td><td>2</td><td>CONTINUOUS/02</td><td>0.25</td></t<>	M-HCSW-PUMP-FLOW	FLOW DIRECTION ARROWS	2	CONTINUOUS/02	0.25
PLUMP IDENTIFIER TAGS, SYMBOL 4 CONTINUOUS/02 0.25 M-HCSW-PUMP-IDE VMLVES) 41 CONTINUOUS/02 0.25 M-HCSW-PUMP-IDE ABANDONED PIPING 3 DASHED2 0.25 M-HTCW-CWRE-NINI MAIN CHILLED WATER PIPING 41 CONTINUOUS/03 0.35 M-HTCW-CWRE-NINI CHILLED WATER PLANT 41 CONTINUOUS/02 0.25 M-HTCW-CWRE-PLINT CHILLED WATER SERVICE PIPING 41 CONTINUOUS/02 0.25 M-HTCW-CWRE-PLINT CHILED WATER SERVICE PIPING 41 CONTINUOUS/02 0.25 M-HTCW-HOW FEUM DIRECTION ARROWS 2 CONTINUOUS/03 0.35 M-HTCW-HWRT-MAIN MAIN HIGH TEMPERATURE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-HWRT-PLINT HIGH TEMPERATURE SERVICE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-HWRT-PLINT HIGH TEMPERATURE SERVICE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-HWRT-PLINT HIGH TEMPERATURE SERVICE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-HWRT-PLINT HIGH TEMPERAT	M-HCSW-PUMP-FTTG	CAPS AND FLANGES	5	CONTINUOUS/03	0.35
M-HCSW-PUMP-IPER MODIFIERS, AND TEXT 4 CONTINUOUS/02 0.25 M-HCSW-PUMP-PIPE VALVES) 41 CONTINUOUS/04 0.50 M-HCW-ABND-PIPE ABANDONED PIPING 3 DASHED2 0.25 M-HTCW-CWTR-MAIN MAIN CHILLED WATER PIPING 41 CONTINUOUS/03 0.35 M-HTCW-CWTR-VAIN CHILLED WATER PERVEC PIPING 41 CONTINUOUS/03 0.35 M-HTCW-WTR-SERV CHILLED WATER PERVEC PIPING 41 CONTINUOUS/03 0.35 M-HTCW-WTR-SERV CHILLED WATER SERVICE PIPING 41 CONTINUOUS/03 0.35 M-HTCW-HTG CAPS AND FLANGES 5 CONTINUOUS/03 0.35 M-HTCW-HWTR-NAIN MAIN HIGH TEMPERATURE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-HWTR-PINT HIGH TEMPERATURE WATER PLANT 16 CONTINUOUS/03 0.35 M-HTCW-HWTR-PINT HIGH TEMPERATURE WATER PLANT 16 CONTINUOUS/03 0.35 M-HTCW-HWTR-PINT HIGH TEMPERATURE SERVICE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-HWTR-PINT <td< td=""><td></td><td>PUMP IDENTIFIER TAGS, SYMBOL</td><td></td><td></td><td></td></td<>		PUMP IDENTIFIER TAGS, SYMBOL			
M-HCSW-PUMP-PIPE VALVES 41 CONTINUOUS/04 0.50 M-HCW-ABRD-PIPE ABANDONED PIPING 3 DASHED2 0.25 M-HTCW-CWTR-MAIN MAIN CHILLED WATER PIPING 41 CONTINUOUS/03 0.35 M-HTCW-CWTR-MAIN MAIN CHILLED WATER PIPING 41 CONTINUOUS/03 0.35 M-HTCW-CWTR-SERV CHILLED WATER SERVICE PIPING 41 CONTINUOUS/02 0.25 M-HTCW-CWTR-SERV CHILLED WATER SERVICE PIPING 41 CONTINUOUS/02 0.25 M-HTCW-WTR-SERV CHILLED WATER SERVICE PIPING 41 CONTINUOUS/02 0.25 M-HTCW-WTR-MAIN MAIN HIGH TEMPERATURE SERVICE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-HWTR-MAIN MAIN HIGH TEMPERATURE VERVICE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-HWTR-SERV HIGH TEMPERATURE SERVICE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-HWTR-SERV HIGH TEMPERATURE VERVICE PIPING 3 CONTINUOUS/03 0.35 M-HTCW-HWTR-SERV HIGH TEMPERATURE VERVICE PIPING 3 CONTINUOUS/03 0.35 <tr< td=""><td>M-HCSW-PUMP-IDEN</td><td>MODIFIERS, AND TEXT</td><td>4</td><td>CONTINUOUS/02</td><td>0.25</td></tr<>	M-HCSW-PUMP-IDEN	MODIFIERS, AND TEXT	4	CONTINUOUS/02	0.25
M-HTCW-ABND-PIPE ABANDONED PIPING 3 DASHED2 0.25 M-HTCW-CWTR-PUNT MAIN CHILLED WATER PIPING 41 CONTINUOUS/03 0.35 M-HTCW-CWTR-PUNT 41 CONTINUOUS/03 0.35 M-HTCW-CWTR-PUNT 41 CONTINUOUS/03 0.35 M-HTCW-CWTR-PUNT 41 CONTINUOUS/03 0.35 M-HTCW-CWTR-PUNT 41 CONTINUOUS/03 0.35 M-HTCW-FUOW FLOW DIRECTION ARROWS 2 CONTINUOUS/03 0.35 M-HTCW-HWTR-MAIN MAIN HIGH TEMPERATURE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-HWTR-MAIN MAIN HIGH TEMPERATURE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-HWTR-SERV HIGH TEMPERATURE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-HWTR-SERV HIGH TEMPERATURE SERVICE PIPING 16 CONTINUOUS/02 0.25 M-HTCW-HWTR-SERV HIGH TEMPERATURE SERVICE PIPING 3 CONTINUOUS/02 0.25 M-HTCW-HWTR-SERV HIGH TEMPERATURE SERVICE PIPING 3 CONTINUOUS/02 0.25 M-HT	M-HCSW-PUMP-PIPE	VALVES)	41	CONTINUOUS/04	0.50
M-HTCW-CWTR-MAIN MAIN CHILLED WATER PIPING 41 CONTINUOUS/03 0.35 M-HTCW-CWTR-PLNT CHILLED WATER SERVICE PIPING 41 CONTINUOUS/03 0.35 M-HTCW-CWTR-SERV CHILLED WATER SERVICE PIPING 41 CONTINUOUS/02 0.25 M-HTCW-DEVC RECTIFIERS, REDUCERS, ETC. 5 CONTINUOUS/02 0.25 M-HTCW-HAIN RECTIFIERS, REDUCERS, ETC. 5 CONTINUOUS/02 0.25 M-HTCW-HVTR-MAIN MAIN HIGH TEMPERATURE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-HVTR-MAIN MAIN HIGH TEMPERATURE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-HVTR-MAIN MAIN HIGH TEMPERATURE SERVICE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-HVTR-MAIN MAIN HIGH TEMPERATURE SERVICE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-WTR-MAIN MAIN HIGH TEMPERATURE SERVICE PIPING 16 CONTINUOUS/02 0.25 M-HTCW-WTR-MAIN MAIN HIGH TEMPERATURE SERVICE PIPING 3 CONTINUOUS/03 0.35 M-HTCW-WTR-MAIN MAIN LOW TEMPERATURE SERVICE PIPING 3 CONTINUOUS/02 <td>M-HTCW-ABND-PIPE</td> <td>ABANDONED PIPING</td> <td>3</td> <td>DASHED2</td> <td>0.25</td>	M-HTCW-ABND-PIPE	ABANDONED PIPING	3	DASHED2	0.25
M-HTCW-CWTR-PLNT CHILLED WATER PLANT 41 CONTINUOUS/03 0.35 M-HTCW-CWTR-SERV CHILLED WATER PLANT 41 CONTINUOUS/02 0.25 M-HTCW-CWTR-SERV CHILLED WATER SERVICE PIPING 41 CONTINUOUS/02 0.25 M-HTCW-FLOW FLOW DIRECTION ARROWS 2 CONTINUOUS/03 0.35 M-HTCW-HWTR-MAIN MAIN HIGH TEMPERATURE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-HWTR-MAIN MAIN HIGH TEMPERATURE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-HWTR-MAIN MAIN HIGH TEMPERATURE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-HWTR-PLNT HIGH TEMPERATURE SERVICE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-HWTR-SERV HIGH TEMPERATURE SERVICE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-IDEN JUNCTION BOXES, MAIHOLES, - - - 0.25 M-HTCW-WTR-SERV LOW TEMPERATURE SERVICE PIPING 3 CONTINUOUS/02 0.25 M-HTCW-WTR-SERV LOW TEMPERATURE SERVICE PIPING 3 CONTINUOUS/03 0.35 <tr< td=""><td>M-HTCW-CWTR-MAIN</td><td>MAIN CHILLED WATER PIPING</td><td>41</td><td>CONTINUOUS/03</td><td>0.35</td></tr<>	M-HTCW-CWTR-MAIN	MAIN CHILLED WATER PIPING	41	CONTINUOUS/03	0.35
M-HTCW-CWTR-SERV CHILLED WATER SERVICE PIPING 41 CONTINUOUS/02 0.25 M-HTCW-DEVC RECTIFIERS, REDUCERS, ETC. 5 CONTINUOUS/03 0.35 M-HTCW-FUOW FLOW DIRECTION ARROWS 2 CONTINUOUS/03 0.35 M-HTCW-HTG CAPS AND FLANGES 5 CONTINUOUS/03 0.35 M-HTCW-HWTR-MAIN MAIN HIGH TEMPERATURE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-HWTR-MAIN MAIN HIGH TEMPERATURE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-HWTR-MAIN MAIN HIGH TEMPERATURE SERVICE PIPING 16 CONTINUOUS/02 0.25 M-HTCW-HWTR-PUNT HIGH TEMPERATURE SERVICE PIPING 16 CONTINUOUS/02 0.25 M-HTCW-JEN JUNCTION BOXES, MANHOLES, MANHOLES, MANHOLES, MANHOLES, MANHOLES, TEST BOXES 3 CONTINUOUS/03 0.35 M-HTCW-WITR-MAIN MAIN LOW TEMPERATURE SERVICE PIPING 3 CONTINUOUS/02 0.25 M-HTCW-WITR-MAIN MAIN LOW TEMPERATURE SERVICE PIPING 3 CONTINUOUS/03 0.35 M-HTCW-VITR-MAIN MAINT LANDITENTIFIER TAGS, SYMBOL CONTINUOUS/03	M-HTCW-CWTR-PLNT	CHILLED WATER PLANT	41	CONTINUOUS/03	0.35
ANCHORS, ANCHOR GUIDES, RECTIFIERS, REDUCERS, ETC.5CONTINUOUS/030.35M-HTCW-FLOWFLOW DIRECTION ARROWS2CONTINUOUS/020.25M-HTCW-HUTR-MAINMAIN HIGH TEMPERATURE PIPING16CONTINUOUS/030.35M-HTCW-HWTR-MAINMAIN HIGH TEMPERATURE PIPING16CONTINUOUS/030.35M-HTCW-HWTR-PUNTHIGH TEMPERATURE VATER PIANT16CONTINUOUS/030.35M-HTCW-HWTR-PUNTHIGH TEMPERATURE SERVICE PIPING16CONTINUOUS/030.35M-HTCW-HWTR-SERVHIGH TEMPERATURE WATER PIANT16CONTINUOUS/020.25M-HTCW-HWTR-SERVHIGH TEMPERATURE SERVICE PIPING16CONTINUOUS/020.25M-HTCW-JBOXHANDHOLES, TEST BOXES3CONTINUOUS/020.25M-HTCW-JBOXMAIN LOW TEMPERATURE SERVICE PIPING3CONTINUOUS/020.25M-HTCW-LWTR-MINMAIN LOW TEMPERATURE SERVICE PIPING3CONTINUOUS/020.25M-HTCW-HTSVALVE PTX/VAULTS, STEAM PITS2CONTINUOUS/020.25M-HTCW-PINT-IDENSYMBOL MODIFIERS, AND TEXT4CONTINUOUS/030.35M-HTCW-STEM-PIPINMAIN STEAM PIPING16CONTINUOUS/030.35M-HTCW-STEM-PINMAIN STEAM PIPING16CONTINUOUS/030.35M-HTCW-STEM-PINMAIN STEAM PIPING16CONTINUOUS/030.35M-HTCW-STEM-PINMAIN STEAM PIPING16CONTINUOUS/030.35M-HTCW-STINS-PUMPMAIN STEAM PIPING16CONTINUOUS/030.35M-HT	M-HTCW-CWTR-SERV	CHILLED WATER SERVICE PIPING	41	CONTINUOUS/02	0.25
M-HTCW-DEVC RECTIFIERS, REDUCERS, ETC. 5 CONTINUOUS/03 0.35 M-HTCW-FLOW FLOW DIRECTION ARROWS 2 CONTINUOUS/02 0.25 M-HTCW-HTTG CAPS AND FLANGES 5 CONTINUOUS/03 0.35 M-HTCW-HWTR-MAIN MAIN HIGH TEMPERATURE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-HWTR-PUNT HIGH TEMPERATURE VARTE PLANT 16 CONTINUOUS/03 0.35 M-HTCW-HWTR-PUNT HIGH TEMPERATURE WATER PLANT 16 CONTINUOUS/03 0.35 M-HTCW-HWTR-PUNT HIGH TEMPERATURE SERVICE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-HWTR-PUNT HIGH TEMPERATURE SERVICE PIPING 16 CONTINUOUS/02 0.25 M-HTCW-JBOX HAND HOLES, TEST BOXES 3 CONTINUOUS/02 0.25 M-HTCW-LWTR-MAIN MAIN LOW TEMPERATURE SERVICE PIPING 3 CONTINUOUS/02 0.25 M-HTCW-LWTR-SERV LOW TEMPERATURE SERVICE PIPING 3 CONTINUOUS/02 0.25 M-HTCW-VUTR-SERV LOW TEMPERATURE SERVICE PIPING 3 CONTINUOUS/02 0.25		ANCHORS, ANCHOR GUIDES,			
M-HTCW-FLOW FLOW DIRECTION ARROWS 2 CONTINUOUS/02 0.25 M-HTCW-FUTG CAPS AND FLANGES 5 CONTINUOUS/03 0.35 M-HTCW-HWTR-MAIN MAIN HIGH TEMPERATURE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-HWTR-MAIN MAIN HIGH TEMPERATURE VATEE PLANT 16 CONTINUOUS/03 0.35 M-HTCW-HWTR-MAIN HIGH TEMPERATURE VATEE PLANT 16 CONTINUOUS/02 0.25 M-HTCW-HWTR-SERV HIGH TEMPERATURE SERVICE PIPING 16 CONTINUOUS/02 0.25 M-HTCW-JEN JUNCTION BOXES, MANHOLES,	M-HTCW-DEVC	RECTIFIERS, REDUCERS, ETC.	5	CONTINUOUS/03	0.35
M-HTCW-FTTG CAPS AND FLANGES 5 CONTINUOUS/03 0.35 M-HTCW-HWTR-MAIN MAIN HIGH TEMPERATURE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-HWTR-VAIN MAIN HIGH TEMPERATURE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-HWTR-PLNT HIGH TEMPERATURE VATER PLANT 16 CONTINUOUS/02 0.25 M-HTCW-HWTR-SERV HIGH TEMPERATURE SERVICE PIPING 16 CONTINUOUS/02 0.25 M-HTCW-JDEN AND TEXT 4 CONTINUOUS/02 0.25 M-HTCW-JBOX HANDHOLES, SMANDOLES, - - M-HTCW-JBOX MAIN LOW TEMPERATURE SERVICE PIPING 3 CONTINUOUS/02 0.25 M-HTCW-LWTR-SERV LOW TEMPERATURE SERVICE PIPING 3 CONTINUOUS/02 0.25 M-HTCW-PITS VALVE PTS/VAULTS, STEAM PITS 2 CONTINUOUS/02 0.25 M-HTCW-PINT-IDEN SYMBOL MODIFIERS, AND TEXT 4 CONTINUOUS/03 0.35 M-HTCW-STEM-MAIN MAIN TEATHIPER TAGS, SYMBOL - - - M-HTCW-STEM-MAIN MAIN TEATHIPIER TAGS, SYMBOL	M-HTCW-FLOW	FLOW DIRECTION ARROWS	2	CONTINUOUS/02	0.25
M-HTCW-HWTR-MAIN M-HTCW-HWTR-MAINMAIN HIGH TEMPERATURE PIPING16CONTINUOUS/030.35M-HTCW-HWTR-PLNTHIGH TEMPERATURE VATER PLANT16CONTINUOUS/020.25M-HTCW-HWTR-SERVHIGH TEMPERATURE SERVICE PIPING16CONTINUOUS/020.25M-HTCW-HWTR-SERVHIGH TEMPERATURE SERVICE PIPING16CONTINUOUS/030.35M-HTCW-IDENAND TEXT4CONTINUOUS/020.25M-HTCW-JBOXHANDHOLES, TEST BOXES3CONTINUOUS/020.25M-HTCW-LWTR-MAINMAIN LOW TEMPERATURE PIPING3CONTINUOUS/020.25M-HTCW-UWTR-MAINMAIN LOW TEMPERATURE PIPING3CONTINUOUS/020.25M-HTCW-PITSVALVE PITS/VAULTS, STEAM PITS2CONTINUOUS/020.25M-HTCW-PITSVALVE PITS/VAULTS, STEAM PITS2CONTINUOUS/030.35M-HTCW-PINTVALVE PITS/VAULTS, STEAM PITS2CONTINUOUS/030.35M-HTCW-STEM-MAINMAIN STEAM PIPING16CONTINUOUS/030.35M-HTCW-STEM-MAINMAIN STEAM PIPING16CONTINUOUS/030.35M-HTCW-STEM-MAINMAIN STEAM PIPING16CONTINUOUS/030.35M-HTCW-STEM-SERVSTEAM SERVICE PIPING16CONTINUOUS/030.35M-HTCW-STEM-SERVMODIFIERS, AND TEXT5CONTINUOUS/030.35M-HTCW-STEM-SERVMODIFIERS, AND TEXT5CONTINUOUS/030.35M-HTCW-STEM-SERVMODIFIERS, AND TEXT5CONTINUOUS/030.35M-HTCW-STEM-SERVM	M-HTCW-FTTG	CAPS AND FLANGES	5	CONTINUOUS/03	0.35
M-HTCW-HWTR-MAIN MAIN HIGH TEMPERATURE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-HWTR-PLNT HIGH TEMPERATURE WATER PLANT 16 CONTINUOUS/02 0.25 M-HTCW-HWTR-SERV HIGH TEMPERATURE SERVICE PIPING 16 CONTINUOUS/02 0.25 M-HTCW-IDEN AND TEXT 4 CONTINUOUS/02 0.25 M-HTCW-JBOX AND TEXT 4 CONTINUOUS/02 0.25 M-HTCW-WTR-SERV HANDHOLES, TEST BOXES 3 CONTINUOUS/02 0.25 M-HTCW-WTR-SERV LOW TEMPERATURE PIPING 3 CONTINUOUS/02 0.25 M-HTCW-UNTR-SERV LOW TEMPERATURE SERVICE PIPING 3 CONTINUOUS/02 0.25 M-HTCW-PINT-IDEN WALVE PIS/VAULTS, STEAM PITS 2 CONTINUOUS/03 0.35 M-HTCW-PINT-IDEN SYMBOL MODIFIERS, AND TEXT 4 CONTINUOUS/03 0.35 M-HTCW-STEM-SERV RETURN FOR ALL HTCW LINES 1 CONTINUOUS/03 0.35 M-HTCW-STEM-SERV SEAM SERVICE PIPING 16 CONTINUOUS/03 0.35 M-HTCW-STEM-SERV MAIN ST	M-HTCW-HWTR-MAIN	MAIN HIGH TEMPERATURE PIPING	16	CONTINUOUS/03	0.35
M-HTCW-HWTR-PLNT M-HTCW-HWTR-SERVHIGH TEMPERATURE SERVICE PIPING HIGH TEMPERATURE SERVICE PIPING16CONTINUOUS/030.35M-HTCW-IDEN AND TEXT HANDHOLES, TEXT HANDHOLES, TEXT HANDHOLES, TEXT HANDHOLES, TEXT M-HTCW-HWTR-SERVAND TEXT HANDHOLES, TEXT BOXES AND TEXT HANDHOLES, TEXT BOXES AND TEXT HANDHOLES, TEXT BOXES AMHTCW-HWTR-SERV LOW TEMPERATURE SERVICE PIPING WATER PLANT IDENTIFIER TAGS, WATER PLANT IDENTIFIER TAGS, M-HTCW-PLNT-IDEN SYMBOL MODIFIERS, AND TEXT HATCW-SERV M-HTCW-SERVCONTINUOUS/02 LOW TEMPERATURE SERVICE PIPING SYMBOL MODIFIERS, AND TEXT ALVE PITS/VAULTS, STEAM PITS CONTINUOUS/03 LOW TEMPERATURE SERVICE PIPING AMHTCW-RETN-PIPE RETURN FOR ALL HTCW LINES M-HTCW-STEM-MAIN MAIN STEAM PIPING M-HTCW-STEM-SARV MODIFIERS, AND TEXT MODIFIERS, REGISTERS, AND M-HVAC-COFF GRILLES CELING DIFFUSERS, REGISTERS, AND M-HVAC-COPM-EFAN MOTORS M-HVAC-COPM-EFAN MOTORS M-HVAC-COPM-EFAN MOTORS M-HVAC-COPM-EFAN MOTORS M-HVAC-COPM-EFAN MOTORS M-HVAC-COPM-EFAN M-HVAC-COPFF GRILLES AND PRESSURE CLASSES M-HVAC-ROFF GRILLES AND PRESSURE CLASSES M-HVAC-RETN HAVAC-RETN16CONTINUOUS/03 	M-HTCW-HWTR-MAIN	MAIN HIGH TEMPERATURE PIPING	16	CONTINUOUS/03	0.35
M-HTCW-HWTR-SERVHIGH TEMPERATURE SERVICE PIPING16CONTINUOUS/020.25M-HTCW-IDENIDENTIFIER TAGS, SYMBOL MODIFIERS, AND TEXT4CONTINUOUS/030.35M-HTCW-JBOXHANDHOLES, TEST BOXES3CONTINUOUS/030.35M-HTCW-UWTR-MAINMAIN LOW TEMPERATURE SERVICE PIPING3CONTINUOUS/020.25M-HTCW-UWTR-SERVLOW TEMPERATURE SERVICE PIPING3CONTINUOUS/020.25M-HTCW-PITSVALVE PITS/VAULTS, STEAM PITS2CONTINUOUS/020.25M-HTCW-PITSVALVE PITS/VAULTS, STEAM PITS2CONTINUOUS/020.25M-HTCW-PITSVALVE PITS/VAULTS, STEAM PITS2CONTINUOUS/030.35M-HTCW-SERVSYMBOL MODIFIERS, AND TEXT4CONTINUOUS/030.35M-HTCW-STEM-MAINMAIN STEAM PIPING16CONTINUOUS/030.35M-HTCW-STNS-IDENMAIN STEAM PIPING16CONTINUOUS/030.35M-HTCW-STNS-IDENPUMP STATION IDEN TAGS, SYMBOLMODIFIERS, AND TEXT5CONTINUOUS/030.35M-HTCW-STNS-PUMPPUMP STATION S5CONTINUOUS/030.35M-HVAC-ACCSEQUIPMENT ACCESS DOORS2CONTINUOUS/030.35M-HVAC-CDFFGRILLES6CONTINUOUS/030.35M-HVAC-EQPMFILOR SMCKE, VOLUME DAMPERS3CONTINUOUS/030.35M-HVAC-EQPM-EFANMOTORS4CONTINUOUS/030.35M-HVAC-EQPM-EFIPEQUIPMENT THIPIPING ANDMOTORS4CONTINUOUS/030.35M-HVA	M-HTCW-HWTR-PLNT	HIGH TEMPERATURE WATER PLANT	16	CONTINUOUS/03	0.35
M-HTCW-IDENIDENTIFIER TAGS, SYMBOL MODIFIERS, AND TEXT4CONTINUOUS/030.35M-HTCW-IDENJUNCTION BOXES, MANHOLES, JUNCTION BOXES, MANHOLES, M-HTCW-LWTR-MAINMAIN LOW TEMPERATURE PIPING3CONTINUOUS/020.25M-HTCW-LWTR-MAINMAIN LOW TEMPERATURE PIPING3CONTINUOUS/020.25M-HTCW-LWTR-SERVLOW TEMPERATURE SERVICE PIPING3CONTINUOUS/020.25M-HTCW-PITSVALVE PITS/VAULTS, STEAM PITS2CONTINUOUS/020.25M-HTCW-PLNT-IDENSYMBOL MODIFIERS, AND TEXT4CONTINUOUS/030.35M-HTCW-STEM-MAINMAIN STEAM PIPING16CONTINUOUS/030.35M-HTCW-STEM-MAINMAIN STEAM PIPING16CONTINUOUS/030.35M-HTCW-STEM-SERVSTEAM SERVICE PIPING16CONTINUOUS/030.35M-HTCW-STNS-IDENMODIFIERS, AND TEXT5CONTINUOUS/030.35M-HTCW-STNS-PUMPPUMP STATION IDEN TAGS, SYMBOLMODIFIERS, AND TEXT5CONTINUOUS/030.35M-HTCW-STNS-PUMPPUMP STATION NEEN TAGS, SYMBOLMODIFIERS, AND TEXT5CONTINUOUS/030.35M-HVAC-CDFFGRILLES6CONTINUOUS/030.35MODIFIE	M-HTCW-HWTR-SERV	HIGH TEMPERATURE SERVICE PIPING	16	CONTINUOUS/02	0.25
M-HICW-IDENAND TEXT4CONTINUOUS/030.35JUINCTION BOXES, MANHOLES, HANDHOLES, TEST BOXES3CONTINUOUS/020.25M-HTCW-LWTR-MAINMAIN LOW TEMPERATURE PIPING3CONTINUOUS/020.25M-HTCW-LWTR-SERVLOW TEMPERATURE SERVICE PIPING3CONTINUOUS/020.25M-HTCW-PITSVALVE PITS/VAULTS, STEAM PITS2CONTINUOUS/020.25M-HTCW-PLNT-IDENSYMBOL MODIFIERS, AND TEXT4CONTINUOUS/030.35M-HTCW-RETN-PIPERETURN FOR ALL HTCW LINES1CONTINUOUS/030.35M-HTCW-STEM-MAINMAIN STEAM PIPING16CONTINUOUS/030.35M-HTCW-STEM-SRAWSTEAM SERVICE PIPING16CONTINUOUS/030.35M-HTCW-STNS-IDENMODIFIERS, AND TEXT5CONTINUOUS/030.35M-HVAC-CDFFGRILLESMODIFIERS, REGISTERS, AND00.35M-HVAC-CDFFGRILLES6CONTINUOUS/030.35M-HVAC-EQPM-EFANEQUIPMENT (NON-POWERED)4CONTINUOUS/030.35M-HVAC-EQPM-EFANEQUIPMENT WITH PIPING AND00.35M-HVAC-EQPM-EFANEQUIPMENT VITH PIPING AND00.35M-HVAC-EQPM-EFIPELECTRICITY4CONTINUOUS/030.35M-HVAC-EQPM-EFANEQUIPMENT -FLOOR MOUNTED4CONTINUOUS/030.35M-HVAC-EQPM-SUSPEQUIPMENT -FLOOR MOUNTED4CONTINUOUS/030.35M-HVAC-FDFFGRILLES33CONTINUOUS/030.35M-HVAC-FDFFGRILLES <td></td> <td>IDENTIFIER TAGS, SYMBOL MODIFIERS,</td> <td></td> <td></td> <td></td>		IDENTIFIER TAGS, SYMBOL MODIFIERS,			
M-HTCW-JBOXHANDHOLES, EST BOXES3CONTINUOUS/020.25M-HTCW-LWTR-MAINMAIN LOW TEMPERATURE PIPING3CONTINUOUS/020.25M-HTCW-LWTR-SERVLOW TEMPERATURE SERVICE PIPING3CONTINUOUS/020.25M-HTCW-PITSVALVE PITS/VAULTS, STEAM PITS2CONTINUOUS/020.25M-HTCW-PITSWATER PLANT IDENTIFIER TAGS,	M-HTCW-IDEN		4	CONTINUOUS/03	0.35
Mintow JowIntroductoryDistributionMintow JowMain Low Temperature Piping3CONTINUOUS/020.25Mintow-LWTR-MainMain Low Temperature Service Piping3CONTINUOUS/020.25Mintow-PitsValve Pits/Vaults, Steam Pits2CONTINUOUS/020.25Mintow-PitsValve Pits/Vaults, Steam Pits2CONTINUOUS/030.35Mintow-PitsValve Pits/Vaults, Steam Pits2CONTINUOUS/030.35Mintow-PitsSYMBOL MODIFIERS, AND TEXT4CONTINUOUS/030.35Mintow-Stem-MainMain Steam Piping16CONTINUOUS/030.35Mintow-Stem-ServSteam Service Piping16CONTINUOUS/030.35Mintow-Strem-ServSteam Service Piping16CONTINUOUS/030.35Mintow-Strem-ServSteam Service Piping16CONTINUOUS/030.35Mintow-Strem-ServSteam Service Piping16CONTINUOUS/030.35Mintow-Strem-ServSteam Service Scoors2CONTINUOUS/030.35Mintow-Strem-ServPUMP Stations5CONTINUOUS/030.35Mintow-Strem-ServiceEQUIPMENT Access Doors2CONTINUOUS/030.35Mintow-Strem-ServiceEQUIPMENT NON-POWERED4CONTINUOUS/030.35Mintow-Strem-ServiceEQUIPMENT WITH ELECTRIC FANS ORMintowes0.35Mintow-Strem-ServiceEQUIPMENT WITH PIPING ANDEQUIPMENT WITH PIPING ANDContinuous/030.35Mintow-Strem-FerEQUIPMENT FLOOR MOUNTED <td></td> <td>JUNCTION BOXES, MANHOLES, HANDHOLES, TEST BOXES</td> <td>3</td> <td></td> <td>0.25</td>		JUNCTION BOXES, MANHOLES, HANDHOLES, TEST BOXES	3		0.25
Minited VetwiteInvertieve testSConstitutionConstitutionMinited VetwiteLOW TEMPERATURE SERVICE PIPING3CONTINUOUS/020.25Minited VetwiteValue Pits/valuts, StEAM Pits2CONTINUOUS/020.25WATER PLANT IDENTIFIER TAGS,Water Plant IDENTIFIER TAGS,0.35Minited VetwiteSYMBOL MODIFIERS, AND TEXT4CONTINUOUS/030.35Minited VetwiteStream Stream Piping16CONTINUOUS/030.35Minited VetwiteSTEAM SERVICE PIPING16CONTINUOUS/020.25PUMP STATION IDEN TAGS, SYMBOLModifiers, AND TEXT5CONTINUOUS/030.35Minited VetwiteSTEAM SERVICE PIPING16CONTINUOUS/030.35Minited VetwiteSTEAM SERVICE PIPING16CONTINUOUS/030.35Minited VetwiteModifiers, AND TEXT5CONTINUOUS/030.35Minited VetwiteModifiers, AND TEXT5CONTINUOUS/030.35Minited VetwiteSTEAM SERVICE PIPING16CONTINUOUS/030.35Minited VetwiteModifiers, AND TEXT5CONTINUOUS/030.35Minited VetwiteSTEAM SERVICE PIPING16CONTINUOUS/030.35Minited VetwiteSTEAM SERVICE PIPING16CONTINUOUS/030.35Minited VetwiteSTEAM SERVICE PIPING16CONTINUOUS/030.35Minited VetwiteSTEAM SERVICE PIPING16CONTINUOUS/030.35Minited VetwiteSTEAM SERVICE PIPING16CONT		MAIN LOW TEMPERATURE PIPING	3		0.25
M-HTOW-LWINS-LWLOW FILM ELAYONG SERVED FINING3CONTINUOUS/020.25M-HTCW-PITSVALVE PITS/VAULTS, STEAM PITS2CONTINUOUS/020.25WATER PLANT IDENTIFIER TAGS, WATER PLANT IDENTIFIER TAGS, M-HTCW-RETN-PIPERETURN FOR ALL HTCW LINES1CONTINUOUS/030.35M-HTCW-RETN-PIPERETURN FOR ALL HTCW LINES1CONTINUOUS/030.35M-HTCW-STEM-MAINMAIN STEAM PIPING16CONTINUOUS/030.35M-HTCW-STEM-SERVSTEAM SERVICE PIPING16CONTINUOUS/020.25PUMP STATION IDEN TAGS, SYMBOLMODIFIERS, AND TEXT5CONTINUOUS/030.35M-HTCW-STNS-IDENMODIFIERS, AND TEXT5CONTINUOUS/030.35M-HTCW-STNS-PUMPPUMP STATIONS5CONTINUOUS/030.35M-HVAC-ACCSEQUIPMENT ACCESS DOORS2CONTINUOUS/030.35M-HVAC-CDFFGRILLES6CONTINUOUS/030.35M-HVAC-EQPMEQUIPMENT (NON-POWERED)4CONTINUOUS/030.35M-HVAC-EQPM-EFANMOTORS4CONTINUOUS/030.35M-HVAC-EQPM-EFANMOTORS4CONTINUOUS/030.35M-HVAC-EQPM-FLOREQUIPMENT 'H PIPING ANDM-HVAC-EOPM-FLOREQUIPMENT 'FLOOR MOUNTED4CONTINUOUS/030.35M-HVAC-EOPM-FLOREQUIPMENT - SUSPENDED4CONTINUOUS/030.35M-HVAC-EOPM-FLORDUCT SIZES AND PRESSURE CLASSES5CONTINUOUS/030.35M-HVAC-RDFFRETURN AIR DIFFUSERS4			3		0.35
M-HTCW-HTGVACULATING VACULAS STEAM STATE2CONTINUOUS/020.25W-HTCW-PLNT-IDENSYMBOL MODIFIERS, AND TEXT4CONTINUOUS/030.35M-HTCW-RETN-PIPERETURN FOR ALL HTCW LINES1CONTINUOUS/010.18M-HTCW-STEM-MAINMAIN STEAM PIPING16CONTINUOUS/030.35M-HTCW-STEM-MAINMAIN STEAM PIPING16CONTINUOUS/030.35M-HTCW-STEM-SERVSTEAM SERVICE PIPING16CONTINUOUS/020.25PUMP STATION IDEN TAGS, SYMBOLNODIFIERS, AND TEXT5CONTINUOUS/030.35M-HTCW-STNS-IDENMODIFIERS, AND TEXT5CONTINUOUS/030.35M-HVAC-ACCSEQUIPMENT ACCESS DOORS2CONTINUOUS/020.25M-HVAC-CDFFGRILLES6CONTINUOUS/030.35M-HVAC-CDFFGRILLES6CONTINUOUS/030.35M-HVAC-EQPMEQUIPMENT (NON-POWERED)4CONTINUOUS/030.35M-HVAC-EQPM-EFANMOTORS4CONTINUOUS/030.35M-HVAC-EQPM-EFANEQUIPMENT WITH PIPING AND4CONTINUOUS/030.35M-HVAC-EQPM-EFIPELECTRICITY4CONTINUOUS/030.35M-HVAC-EQPM-FLOREQUIPMENT - FLOOR MOUNTED4CONTINUOUS/030.35M-HVAC-EQPM-FLOREQUIPMENT - SUSPENDED4CONTINUOUS/030.35M-HVAC-FDFFGRILLES33CONTINUOUS/030.35M-HVAC-RETNRETURN AIR DIFFUSERSA6CONTINUOUS/030.35M-HVAC-RDFFRETURN A			3 2		0.25
M-HTCW-PLNT-IDENSYMBOL MODIFIERS, AND TEXT4CONTINUOUS/030.35M-HTCW-RETN-PIPERETURN FOR ALL HTCW LINES1CONTINUOUS/010.18M-HTCW-STEM-MAINMAIN STEAM PIPING16CONTINUOUS/030.35M-HTCW-STEM-SERVSTEAM SERVICE PIPING16CONTINUOUS/020.25PUMP STATION IDEN TAGS, SYMBOLMODIFIERS, AND TEXT5CONTINUOUS/030.35M-HTCW-STNS-IDENMODIFIERS, AND TEXT5CONTINUOUS/030.35M-HTCW-STNS-PUMPPUMP STATION JDEN TAGS, SYMBOL00.35M-HVAC-ACCSEQUIPMENT ACCESS DOORS2CONTINUOUS/030.35M-HVAC-ACCSEQUIPMENT ACCESS DOORS2CONTINUOUS/030.35M-HVAC-CDFFGRILLES6CONTINUOUS/030.35M-HVAC-EQPMEQUIPMENT (NON-POWERED)4CONTINUOUS/030.35M-HVAC-EQPM-EFANMOTORS4CONTINUOUS/030.35M-HVAC-EQPM-EFANEQUIPMENT WITH PIPING AND ELECTRICITY4CONTINUOUS/030.35M-HVAC-EQPM-FLOREQUIPMENT - FLOOR MOUNTED4CONTINUOUS/030.35M-HVAC-EQPM-FLOREQUIPMENT - SUSPENDED4CONTINUOUS/030.35M-HVAC-FDFFGRILLES33CONTINUOUS/030.35M-HVAC-FDFFGRILLES33CONTINUOUS/030.35M-HVAC-FDFFGRILLES33CONTINUOUS/030.35M-HVAC-RETNRETURN AIR DIFFUSERS46CONTINUOUS/030.35		WATER PLANT IDENTIFIER TAGS.	2	00111100003/02	0.23
M-HTCW-RETN-PIPERETURN FOR ALL HTCW LINES1CONTINUOUS/010.18M-HTCW-STEM-MAINMAIN STEAM PIPING16CONTINUOUS/030.35M-HTCW-STEM-SERVSTEAM SERVICE PIPING16CONTINUOUS/020.25PUMP STATION IDEN TAGS, SYMBOLMODIFIERS, AND TEXT5CONTINUOUS/030.35M-HTCW-STNS-IDENMODIFIERS, AND TEXT5CONTINUOUS/030.35M-HTCW-STNS-PUMPPUMP STATIONS5CONTINUOUS/030.35M-HVAC-ACCSEQUIPMENT ACCESS DOORS2CONTINUOUS/020.25M-HVAC-CDFFGRILLES6CONTINUOUS/030.35M-HVAC-DMPRFIRE, SMOKE, VOLUME DAMPERS3CONTINUOUS/030.35M-HVAC-EQPMEQUIPMENT (NON-POWERED)4CONTINUOUS/030.35M-HVAC-EQPM-EFANMOTORS4CONTINUOUS/030.35M-HVAC-EQPM-FLOREQUIPMENT WITH PIPING AND EQUIPMENT WITH PIPING AND EQUIPMENT - FLOOR MOUNTED4CONTINUOUS/030.35M-HVAC-EQPM-FLOREQUIPMENT - FLOOR MOUNTED4CONTINUOUS/030.35M-HVAC-EQPM-SUSPEQUIPMENT - SUSPENDED4CONTINUOUS/030.35M-HVAC-FDFFGRILLES33CONTINUOUS/030.35M-HVAC-FDFFGRILLES33CONTINUOUS/030.35M-HVAC-FDFFRETURN AIR DIFFUSERS, AND HVAC-RDFFMOTORS0.35M-HVAC-RDFFRETURN AIR DIFFUSERS5CONTINUOUS/030.35M-HVAC-RDFFRETURN AIR DIFFUSERS46CONTINUOUS/030	M-HTCW-PLNT-IDEN	SYMBOL MODIFIERS, AND TEXT	4	CONTINUOUS/03	0.35
M-HTCW-STEM-MAINMAIN STEAM PIPING16CONTINUOUS/030.35M-HTCW-STEM-SERVSTEAM SERVICE PIPING16CONTINUOUS/020.25PUMP STATION IDEN TAGS, SYMBOLPUMP STATION IDEN TAGS, SYMBOL0.35M-HTCW-STNS-IDENMODIFIERS, AND TEXT5CONTINUOUS/030.35M-HTCW-STNS-PUMPPUMP STATIONS5CONTINUOUS/030.35M-HVAC-ACCSEQUIPMENT ACCESS DOORS2CONTINUOUS/030.35M-HVAC-CDFFGRILLES6CONTINUOUS/030.35M-HVAC-DMPRFIRE, SMOKE, VOLUME DAMPERS3CONTINUOUS/030.35M-HVAC-EOPMEQUIPMENT (NON-POWERED)4CONTINUOUS/030.35M-HVAC-EOPM-EFANMOTORS4CONTINUOUS/030.35M-HVAC-EOPM-EFANEQUIPMENT WITH ELECTRIC FANS OR EQUIPMENT WITH PIPING AND	M-HTCW-RETN-PIPE	RETURN FOR ALL HTCW LINES	1	CONTINUOUS/01	0.18
M-HTCW-STEM-SERVSTEAM SERVICE PIPING16CONTINUOUS/020.25PUMP STATION IDEN TAGS, SYMBOL MODIFIERS, AND TEXT5CONTINUOUS/030.35M-HTCW-STNS-IDENMODIFIERS, AND TEXT5CONTINUOUS/030.35M-HTCW-STNS-PUMPPUMP STATIONS5CONTINUOUS/030.35M-HVAC-ACCSEQUIPMENT ACCESS DOORS2CONTINUOUS/020.25M-HVAC-CDFFGRILLES6CONTINUOUS/030.35M-HVAC-DMPRFIRE, SMOKE, VOLUME DAMPERS3CONTINUOUS/030.35M-HVAC-EQPMEQUIPMENT (NON-POWERED)4CONTINUOUS/030.35EQUIPMENT WITH ELECTRIC FANS OR MOTORSMOTORS4CONTINUOUS/030.35M-HVAC-EQPM-EFANMOTORS4CONTINUOUS/030.35M-HVAC-EQPM-FLOREQUIPMENT WITH PIPING AND ELECTRICITY4CONTINUOUS/030.35M-HVAC-EQPM-FLOREQUIPMENT - FLOOR MOUNTED4CONTINUOUS/030.35M-HVAC-EQPM-SUSPEQUIPMENT - SUSPENDED4CONTINUOUS/030.35M-HVAC-FDFFGRILLES33CONTINUOUS/030.35M-HVAC-FDFFGRILLES33CONTINUOUS/030.35M-HVAC-IDENDUCT SIZES AND PRESSURE CLASSES5CONTINUOUS/030.35M-HVAC-RDFFRETURN AIR DIFFUSERS46CONTINUOUS/030.35M-HVAC-RETNRETURN AIR DIFFUSERS46CONTINUOUS/030.35	M-HTCW-STEM-MAIN	MAIN STEAM PIPING	16	CONTINUOUS/03	0.35
PUMP STATION IDEN TAGS, SYMBOL MODIFIERS, AND TEXT5CONTINUOUS/030.35M-HTCW-STNS-PUMPPUMP STATIONS5CONTINUOUS/030.35M-HVAC-ACCSEQUIPMENT ACCESS DOORS2CONTINUOUS/020.25CEILING DIFFUSERS, REGISTERS, AND GRILLES6CONTINUOUS/030.35M-HVAC-DMPRFIRE, SMOKE, VOLUME DAMPERS3CONTINUOUS/020.25M-HVAC-EQPMEQUIPMENT (NON-POWERED)4CONTINUOUS/030.35M-HVAC-EQPM-EFANMOTORS4CONTINUOUS/030.35M-HVAC-EQPM-EFANEQUIPMENT WITH PIPING AND ELECTRICITY4CONTINUOUS/030.35M-HVAC-EQPM-FIPIPEQUIPMENT - FLOOR MOUNTED4CONTINUOUS/030.35M-HVAC-EQPM-SUSPEQUIPMENT - SUSPENDED4CONTINUOUS/030.35M-HVAC-FDFFGRILLES33CONTINUOUS/030.35M-HVAC-FDFFGRILLES33CONTINUOUS/030.35M-HVAC-RDFFRETURN AIR DIFFUSERS, REGISTERS, AND FLOOR DIFFUSERS3CONTINUOUS/030.35M-HVAC-RDFFRETURN AIR DIFFUSERS46CONTINUOUS/030.35	M-HTCW-STEM-SERV	STEAM SERVICE PIPING	16	CONTINUOUS/02	0.25
M-HTCW-STNS-IDENMODIFIERS, AND TEXT5CONTINUOUS/030.35M-HTCW-STNS-PUMPPUMP STATIONS5CONTINUOUS/030.35M-HVAC-ACCSEQUIPMENT ACCESS DOORS2CONTINUOUS/020.25CEILING DIFFUSERS, REGISTERS, AND6CONTINUOUS/030.35M-HVAC-CDFFGRILLES6CONTINUOUS/030.35M-HVAC-DMPRFIRE, SMOKE, VOLUME DAMPERS3CONTINUOUS/020.25M-HVAC-EQPMEQUIPMENT (NON-POWERED)4CONTINUOUS/030.35M-HVAC-EQPM-EFANMOTORS4CONTINUOUS/030.35M-HVAC-EQPM-EFANMOTORS4CONTINUOUS/030.35M-HVAC-EQPM-EFIPELECTRICITY4CONTINUOUS/030.35M-HVAC-EQPM-FLOREQUIPMENT - FLOOR MOUNTED4CONTINUOUS/030.35M-HVAC-EQPM-SUSPEQUIPMENT - SUSPENDED4CONTINUOUS/030.35M-HVAC-EQPM-SUSPEQUIPMENT - SUSPENDED4CONTINUOUS/030.35M-HVAC-FDFFGRILLES33CONTINUOUS/030.35M-HVAC-IDENDUCT SIZES AND PRESSURE CLASSES5CONTINUOUS/030.35M-HVAC-RDFFRETURN AIR DIFFUSERS46CONTINUOUS/030.35M-HVAC-RETNRETURN DUCTWORK46CONTINUOUS/040.50		PUMP STATION IDEN TAGS, SYMBOL			
M-HTCW-STNS-PUMPPUMP STATIONS5CONTINUOUS/030.35M-HVAC-ACCSEQUIPMENT ACCESS DOORS2CONTINUOUS/020.25CEILING DIFFUSERS, REGISTERS, AND GRILLES6CONTINUOUS/030.35M-HVAC-CDFFGRILLES6CONTINUOUS/020.25M-HVAC-BOPMFIRE, SMOKE, VOLUME DAMPERS3CONTINUOUS/020.25M-HVAC-EQPMEQUIPMENT (NON-POWERED)4CONTINUOUS/030.35EQUIPMENT WITH ELECTRIC FANS OR MOTORS4CONTINUOUS/030.35M-HVAC-EQPM-EFANMOTORS4CONTINUOUS/030.35M-HVAC-EQPM-FLOREQUIPMENT WITH PIPING AND ELECTRICITY4CONTINUOUS/030.35M-HVAC-EQPM-FLOREQUIPMENT - FLOOR MOUNTED4CONTINUOUS/030.35M-HVAC-FDFFGRILLES33CONTINUOUS/030.35M-HVAC-FDFFGRILLES33CONTINUOUS/030.35M-HVAC-IDENDUCT SIZES AND PRESSURE CLASSES5CONTINUOUS/030.35M-HVAC-RDFFRETURN AIR DIFFUSERS46CONTINUOUS/030.35M-HVAC-RETNRETURN DUCTWORK46CONTINUOUS/040.50	M-HTCW-STNS-IDEN	MODIFIERS, AND TEXT	5	CONTINUOUS/03	0.35
M-HVAC-ACCSEQUIPMENT ACCESS DOORS2CONTINUOUS/020.25M-HVAC-CDFFGRILLES6CONTINUOUS/030.35M-HVAC-DMPRFIRE, SMOKE, VOLUME DAMPERS3CONTINUOUS/020.25M-HVAC-EQPMEQUIPMENT (NON-POWERED)4CONTINUOUS/030.35EQUIPMENT WITH ELECTRIC FANS OR MOTORS4CONTINUOUS/030.35M-HVAC-EQPM-EFANMOTORS4CONTINUOUS/030.35M-HVAC-EQPM-EPIPELECTRICITY4CONTINUOUS/030.35M-HVAC-EQPM-FLOREQUIPMENT - FLOOR MOUNTED4CONTINUOUS/030.35M-HVAC-EQPM-SUSPEQUIPMENT - SUSPENDED4CONTINUOUS/030.35M-HVAC-FDFFGRILLES33CONTINUOUS/030.35M-HVAC-IDENDUCT SIZES AND PRESSURE CLASSES5CONTINUOUS/030.35M-HVAC-RDFFRETURN AIR DIFFUSERS46CONTINUOUS/030.35M-HVAC-RETNRETURN DUCTWORK46CONTINUOUS/040.50	M-HTCW-STNS-PUMP	PUMP STATIONS	5	CONTINUOUS/03	0.35
M-HVAC-CDFFCEILING DIFFUSERS, REGISTERS, AND6CONTINUOUS/030.35M-HVAC-DMPRFIRE, SMOKE, VOLUME DAMPERS3CONTINUOUS/020.25M-HVAC-EQPMEQUIPMENT (NON-POWERED)4CONTINUOUS/030.35EQUIPMENT WITH ELECTRIC FANS ORMOTORS4CONTINUOUS/030.35M-HVAC-EQPM-EFANMOTORS4CONTINUOUS/030.35M-HVAC-EQPM-EPIPELECTRICITY4CONTINUOUS/030.35M-HVAC-EQPM-FLOREQUIPMENT - FLOOR MOUNTED4CONTINUOUS/030.35M-HVAC-EQPM-SUSPEQUIPMENT - SUSPENDED4CONTINUOUS/030.35M-HVAC-FDFFGRILLES33CONTINUOUS/030.35M-HVAC-IDENDUCT SIZES AND PRESSURE CLASSES5CONTINUOUS/030.35M-HVAC-RDFFRETURN AIR DIFFUSERS46CONTINUOUS/030.35M-HVAC-RTNRETURN DUCTWORK46CONTINUOUS/040.50	M-HVAC-ACCS	EQUIPMENT ACCESS DOORS	2	CONTINUOUS/02	0.25
M-HVAC-DMPRFIRE, SMOKE, VOLUME DAMPERS3CONTINUOUS/020.25M-HVAC-EQPMEQUIPMENT (NON-POWERED)4CONTINUOUS/030.35EQUIPMENT WITH ELECTRIC FANS OR MOTORS4CONTINUOUS/030.35M-HVAC-EQPM-EFANMOTORS4CONTINUOUS/030.35M-HVAC-EQPM-EPIPELECTRICITY4CONTINUOUS/030.35M-HVAC-EQPM-FLOREQUIPMENT - FLOOR MOUNTED4CONTINUOUS/030.35M-HVAC-EQPM-SUSPEQUIPMENT - SUSPENDED4CONTINUOUS/030.35M-HVAC-FDFFGRILLES33CONTINUOUS/030.35M-HVAC-IDENDUCT SIZES AND PRESSURE CLASSES5CONTINUOUS/030.35M-HVAC-RDFFRETURN AIR DIFFUSERS46CONTINUOUS/030.35M-HVAC-RETNRETURN DUCTWORK46CONTINUOUS/040.50	M-HVAC-CDFF	GRILLES	6	CONTINUOUS/03	0.35
M-HVAC-DMIRFIRE, SMORE, VOLOME DAMEERS3CONTINUOUS/020.23M-HVAC-EQPMEQUIPMENT (NON-POWERED)4CONTINUOUS/030.35EQUIPMENT WITH ELECTRIC FANS OR MOTORS4CONTINUOUS/030.35M-HVAC-EQPM-EFANMOTORS4CONTINUOUS/030.35M-HVAC-EQPM-EPIPELECTRICITY4CONTINUOUS/030.35M-HVAC-EQPM-FLOREQUIPMENT - FLOOR MOUNTED4CONTINUOUS/030.35M-HVAC-EQPM-SUSPEQUIPMENT - SUSPENDED4CONTINUOUS/030.35M-HVAC-FDFFGRILLES33CONTINUOUS/030.35M-HVAC-IDENDUCT SIZES AND PRESSURE CLASSES5CONTINUOUS/030.35M-HVAC-RDFFRETURN AIR DIFFUSERS46CONTINUOUS/030.35M-HVAC-RETNRETURN DUCTWORK46CONTINUOUS/040.50		FIRE SMOKE VOLUME DAMPERS	3		0.35
MHVAC-EQFMEQUIPMENT WITH ELECTRIC FANS OR MOTORS4CONTINUOUS/030.35M-HVAC-EQPM-EFANMOTORS4CONTINUOUS/030.35M-HVAC-EQPM-EPIPELECTRICITY4CONTINUOUS/030.35M-HVAC-EQPM-FLOREQUIPMENT - FLOOR MOUNTED4CONTINUOUS/030.35M-HVAC-EQPM-SUSPEQUIPMENT - SUSPENDED4CONTINUOUS/030.35M-HVAC-FDFFGRILLES33CONTINUOUS/030.35M-HVAC-IDENDUCT SIZES AND PRESSURE CLASSES5CONTINUOUS/030.35M-HVAC-RDFFRETURN AIR DIFFUSERS46CONTINUOUS/030.35M-HVAC-RETNRETURN DUCTWORK46CONTINUOUS/040.50			1		0.25
M-HVAC-EQPM-EFANMOTORS4CONTINUOUS/030.35M-HVAC-EQPM-EPIPELECTRICITY4CONTINUOUS/030.35M-HVAC-EQPM-FLOREQUIPMENT - FLOOR MOUNTED4CONTINUOUS/030.35M-HVAC-EQPM-SUSPEQUIPMENT - SUSPENDED4CONTINUOUS/030.35M-HVAC-FDFFGRILLES33CONTINUOUS/030.35M-HVAC-IDENDUCT SIZES AND PRESSURE CLASSES5CONTINUOUS/030.35M-HVAC-RDFFRETURN AIR DIFFUSERS46CONTINUOUS/030.35M-HVAC-RETNRETURN DUCTWORK46CONTINUOUS/040.50		FOUIPMENT WITH FLECTRIC FANS OR	4	0011110003/03	0.33
EQUIPMENT WITH PIPING AND ELECTRICITY4CONTINUOUS/030.35M-HVAC-EQPM-FLOREQUIPMENT - FLOOR MOUNTED4CONTINUOUS/030.35M-HVAC-EQPM-SUSPEQUIPMENT - SUSPENDED4CONTINUOUS/030.35M-HVAC-FDFFGRILLESS3CONTINUOUS/030.35M-HVAC-IDENDUCT SIZES AND PRESSURE CLASSES5CONTINUOUS/030.35M-HVAC-RDFFRETURN AIR DIFFUSERS46CONTINUOUS/030.35M-HVAC-RETNRETURN DUCTWORK46CONTINUOUS/040.50	M-HVAC-EQPM-EFAN	MOTORS	4	CONTINUOUS/03	0.35
M-HVAC-EQPM-EPIPELECTRICITY4CONTINUOUS/030.35M-HVAC-EQPM-FLOREQUIPMENT - FLOOR MOUNTED4CONTINUOUS/030.35M-HVAC-EQPM-SUSPEQUIPMENT - SUSPENDED4CONTINUOUS/030.35FLOOR DIFFUSERS, REGISTERS, ANDFLOOR DIFFUSERS, REGISTERS, AND0.350.35M-HVAC-FDFFGRILLES33CONTINUOUS/030.35M-HVAC-IDENDUCT SIZES AND PRESSURE CLASSES5CONTINUOUS/030.35M-HVAC-RDFFRETURN AIR DIFFUSERS46CONTINUOUS/030.35M-HVAC-RETNRETURN DUCTWORK46CONTINUOUS/040.50		EQUIPMENT WITH PIPING AND	л		0.25
M-HVAC-EQPM-FLOREQUIPMENT - FLOOR MOUNTED4CONTINUOUS/030.35M-HVAC-EQPM-SUSPEQUIPMENT - SUSPENDED4CONTINUOUS/030.35FLOOR DIFFUSERS, REGISTERS, ANDFLOOR DIFFUSERS, REGISTERS, AND0.35M-HVAC-FDFFGRILLES33CONTINUOUS/030.35M-HVAC-IDENDUCT SIZES AND PRESSURE CLASSES5CONTINUOUS/030.35M-HVAC-RDFFRETURN AIR DIFFUSERS46CONTINUOUS/030.35M-HVAC-RETNRETURN DUCTWORK46CONTINUOUS/040.50			4		0.35
M-HVAC-EQPM-SUSPEQUIPMENT - SUSPENDED4CONTINUOUS/030.35FLOOR DIFFUSERS, REGISTERS, AND GRILLES33CONTINUOUS/030.35M-HVAC-FDFFGRILLES33CONTINUOUS/030.35M-HVAC-IDENDUCT SIZES AND PRESSURE CLASSES5CONTINUOUS/030.35M-HVAC-RDFFRETURN AIR DIFFUSERS46CONTINUOUS/030.35M-HVAC-RETNRETURN DUCTWORK46CONTINUOUS/040.50	M-HVAC-EQPM-FLOR		4		0.35
M-HVAC-FDFFGRILLES33CONTINUOUS/030.35M-HVAC-IDENDUCT SIZES AND PRESSURE CLASSES5CONTINUOUS/030.35M-HVAC-RDFFRETURN AIR DIFFUSERS46CONTINUOUS/030.35M-HVAC-RETNRETURN DUCTWORK46CONTINUOUS/040.50	M-HVAC-EQPM-SUSP	EQUIPMENT - SUSPENDED FLOOR DIFFUSERS, REGISTERS, AND	4	CONTINUOUS/03	0.35
M-HVAC-IDENDUCT SIZES AND PRESSURE CLASSES5CONTINUOUS/030.35M-HVAC-RDFFRETURN AIR DIFFUSERS46CONTINUOUS/030.35M-HVAC-RETNRETURN DUCTWORK46CONTINUOUS/040.50	M-HVAC-FDFF	GRILLES	33	CONTINUOUS/03	0.35
M-HVAC-RDFFRETURN AIR DIFFUSERS46CONTINUOUS/030.35M-HVAC-RETNRETURN DUCTWORK46CONTINUOUS/040.50	M-HVAC-IDEN	DUCT SIZES AND PRESSURE CLASSES	5	CONTINUOUS/03	0.35
M-HVAC-RETN RETURN DUCTWORK 46 CONTINUOUS/04 0.50	M-HVAC-RDFF	RETURN AIR DIFFUSERS	46	CONTINUOUS/03	0.35
	M-HVAC-RETN	RETURN DUCTWORK	46	CONTINUOUS/04	0.50



LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
M-HVAC-RETN-CNTR	RETURN DUCTWORK CENTERLINES	1	CENTER2/71	0.18
M-HVAC-ROOF	ROOF MOUNTED HVAC EQUIPMENT	4	CONTINUOUS/03	0.35
M-HVAC-SPLY	SUPPLY DUCTWORK	7	CONTINUOUS/04	0.50
M-HVAC-SPLY-CNTR	SUPPLY DUCTWORK CENTERLINES	1	CENTER2/71	0.18
M-HVAC-SPLY-HDUC	SUPPLY DUCTWORK - HIGH PRESSURE	7	CONTINUOUS/04	0.50
M-HVAC-TAGS	DIFFUSER/REGISTER/GRILLE TAGS AND AIR FLOW ARROWS	5	CONTINUOUS/03	0.35
M-HVAC-WDFF	WALL DIFFUSERS, REGISTERS, AND GRILLES	4	CONTINUOUS/03	0.35
M-HWTR-EQPM	HOT WATER HEATING SYSTEM EQUIPMENT	16	CONTINUOUS/03	0.35
M-HWTR-RETN-PIPE	PIPING	16	CONTINUOUS/04	0.50
M-HWTR-SPLY-PIPE	PIPING	76	CONTINUOUS/04	0.50
M-INSL-EQPM	INSULATING OIL EQUIPMENT	13	CONTINUOUS/03	0.35
M-INSL-RETN-PIPE	INSULATING OIL RETURN PIPING	13	CONTINUOUS/04	0.50
M-INSL-SPLY-PIPE	INSULATING OIL SUPPLY PIPING	13	CONTINUOUS/04	0.50
M-LUBE-EQPM	LUBRICATION OIL EQUIPMENT	13	CONTINUOUS/03	0.35
M-LUBE-RETN-PIPE	LUBRICATION OIL RETURN PIPING	13	CONTINUOUS/04	0.50
M-LUBE-SPLY-PIPE	LUBRICATION OIL SUPPLY PIPING	13	CONTINUOUS/04	0.50
M-MACH-AXLE	SHAFTS AND AXLES	4	CONTINUOUS/03	0.35
M-MACH-BASE	MACHINERY BASES	4	CONTINUOUS/03	0.35
M-MACH-BEAR	BEARINGS AND COUPLINGS	4	CONTINUOUS/03	0.35
M-MACH-BELT	WIRE ROPE, CHAINS, AND BELTS	22	CONTINUOUS/03	0.35
M-MACH-BSHG	BUSHINGS, WEAR PLATES, SHIMS, AND	Л		0.35
M-MACH-CLEV		72		0.35
M-MACH-COMP	MISCELLANEOUS MACHINERY PARTS AND COMPONENTS	4	CONTINUOUS/03	0.35
M-MACH-COVR	MACHINERY COVERS, COVER PLATES, AND GUARDING	7	CONTINUOUS/03	0.35
M-MACH-FSTN	FASTENERS, NUTS, AND BOLTS	4	CONTINUOUS/03	0.35
M-MACH-GEAR	GEARS	5	CONTINUOUS/03	0.35
M-MACH-KEYS	KEYS AND KEEPER PLATES	22	CONTINUOUS/03	0.35
M-MACH-LROT	LARGE ROTATING MACHINERY (TURBINE AND PUMP OUTLINES)	5	CONTINUOUS/03	0.35
M-MACH-MOTR	MACHINERY MOTORS	5	CONTINUOUS/03	0.35
M-MACH-PINS	PINS	22	CONTINUOUS/03	0.35
M-MACH-PULL	PULLEYS, DRUMS, AND SHEAVES	22	CONTINUOUS/03	0.35
	RAILS (E.G., CRANE RAILS, RAIL HOOTS,			0.00
M-MACH-RAIL	SPLICE PLATES, ETC.)	22	CONTINUOUS/03	0.35
M-MACH-ROLL	ROLLERS AND WHEELS	22	CONTINUOUS/03	0.35
M-MACH-ROLL-TRAK	ROLLER TRACKS	22	CONTINUOUS/03	0.35
M-MACH-SEAL	SEALS	22	CONTINUOUS/03	0.35
M-MACH-SHOE	SLIDING SHOES, SKIDS, ETC.	22	CONTINUOUS/03	0.35
M-MACH-SPRG	SPRINGS	22	CONTINUOUS/03	0.35
M-MACH-SUPT	SUPPORT BRACKETS	4	CONTINUOUS/03	0.35
M-MAIR-DUCT	MIXED AIR DUCTWORK	7	CONTINUOUS/04	0.50
M-MAIR-DUCT-CNTR	MIXED AIR DUCTWORK CENTERLINES	1	CENTER2/71	0.18
M-MAIR-EQPM	MIXED AIR EQUIPMENT	7	CONTINUOUS/03	0.35



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LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
M-MATL-CRAN	CRANES	4	CONTINUOUS/03	0.35
M-MATL-CRAN-BOOM	CRANE, BOOM	4	CONTINUOUS/03	0.35
M-MATL-HOIS	HOISTS	4	CONTINUOUS/03	0.35
	HOOKS, EYES, AND OTHER END	4		0.25
		4		0.35
IVI-IVIA I L-LIF I		5	CONTINUOUS/03	0.35
M-MATL-WIRE	HOISTING MEDIUM	5	CONTINUOUS/03	0.35
M-MITR-BASE	MITER GATE MACHINERY BASE	4	CONTINUOUS/03	0.35
M-MITR-CLEV	CLEVISES	22	CONTINUOUS/03	0.35
M-MITR-CRNG	CARDANIC RING	2	CONTINUOUS/03	0.35
	MITER GATE MACHINERY CYLINDER			
M-MITR-CYLD	(OUTLINE NOT FOR DETAILS)	11	CONTINUOUS/03	0.35
M-MITR-TRUN	MITER GATE MACHINERY TRUNNION	3	CONTINUOUS/03	0.35
M-MKUP-DUCT	MAKEUP AIR DUCTWORK	4	CONTINUOUS/04	0.50
M-MKUP-DUCT-CNTR	MAKEUP AIR DUCTWORK CENTERLINES	1	CENTER2/71	0.18
M-MKUP-EQPM	MAKEUP AIR EQUIPMENT	4	CONTINUOUS/03	0.35
M-MKUP-GRIL	MAKEUP AIR GRILLES	4	CONTINUOUS/03	0.35
M-NGAS-EQPM	NATURAL GAS EQUIPMENT	5	CONTINUOUS/03	0.35
M-NGAS-PIPE	NATURAL GAS PIPING	5	GAS	0.35
M-PENE-FLOR	FLOOR PENETRATIONS	2	DASHED2	0.25
M-PENE-ROOF	ROOF PENETRATIONS	3	DASHED2	0.25
M-PENE-WALL	WALL PENETRATIONS	4	DASHED2	0.25
M-PROC-EQPM	PROCESS EQUIPMENT	12	CONTINUOUS/03	0.35
M-PROC-RETN-PIPE	PROCESS RETURN PIPING	12	CONTINUOUS/04	0.50
M-PROC-SPLY-PIPE	PROCESS SUPPLY PIPING	12	CONTINUOUS/04	0.50
M-RAIR-DUCT	RELIEF AIR DUCTWORK	3	CONTINUOUS/04	0.50
M-RAIR-DUCT-CNTR	RELIEF AIR DUCTWORK CENTERLINES	1	CENTER2/71	0.18
M-RAIR-EQPM	RELIEF AIR EQUIPMENT	3	CONTINUOUS/03	0.35
M-RAIR-GRIL	RELIEF AIR GRILLES	3	CONTINUOUS/03	0.35
	ENERGY RECOVERY SYSTEM			
M-RCOV-EQPM		45	CONTINUOUS/03	0.35
M-RCOV-RETN-PIPE		45	CONTINUOUS/04	0.50
	ENERGY RECOVERY SYSTEM SUPPLY	10	001111100003/01	0.00
M-RCOV-SPLY-PIPE	PIPING	45	CONTINUOUS/04	0.50
M-REFG-DISC-PIPE	REFRIGERATION SYSTEM DISCHARGE	41	CONTINUOUS/04	0.50
M-REFG-EQPM	REFRIGERATION SYSTEM EQUIPMENT	42	CONTINUOUS/03	0.35
	REFRIGERATION SYSTEM RETURN	40		0.50
M-REFG-RETN-PIPE	PIPING DEEDICEDATION SYSTEM SLIDDI V	43	CONTINUOUS/04	0.50
M-REFG-SPLY-PIPE	PIPING	44	CONTINUOUS/04	0.50
M-RWTR-EQPM	RAW WATER EQUIPMENT	31	CONTINUOUS/03	0.35
M-RWTR-RETN-PIPE	RAW WATER RETURN PIPING	31	CONTINUOUS/04	0.50
M-RWTR-SPLY-PIPE	RAW WATER SUPPLY PIPING	31	CONTINUOUS/04	0.50
	COMPONENT IDENTIFICATION			
M-SECT-IDEN	NUMBERS	4	CONTINUOUS/03	0.35
M-SECT-MBND	MATERIAL BEYOND SECTION CUT	1	CONTINUOUS/01	0.18
M-SECT-MCUT	MATERIAL CUT BY SECTION	7	CONTINUOUS/04	0.50
M-SECT-PATT	TEXTURES AND HATCH PATTERNS	9	CONTINUOUS/01	0.18
M-STEM-BLBD-PIPE	BOILER BLOW DOWN PIPING	16	CONTINUOUS/04	0.50



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LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
M-STEM-CNDS-PIPE	CONDENSATE PIPING	42	CONTINUOUS/04	0.50
M-STEM-EQPM	STEAM SYSTEM EQUIPMENT	16	CONTINUOUS/03	0.35
M-STEM-HPIP-PIPE	HIGH PRESSURE STEAM PIPING	3	CONTINUOUS/04	0.50
M-STEM-LPIP-PIPE	LOW PRESSURE STEAM PIPING	4	CONTINUOUS/04	0.50
M-STEM-MPIP-PIPE	MEDIUM PRESSURE STEAM PIPING	5	CONTINUOUS/04	0.50
M-TAIR-DUCT	TRANSFER AIR DUCTWORK	13	CONTINUOUS/04	0.50
	TRANSFER AIR DUCTWORK			
M-TAIR-DUCT-CNTR	CENTERLINES	1	CENTER2/71	0.18
M-TAIR-EQPM	TRANSFER AIR EQUIPMENT	13	CONTINUOUS/03	0.35

PLUMBING- LEVEL/LAYER LIST

LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
P-ANNO-DIMS	DIM LINES, DIM TERMINATORS, DIM TEXT	7	CONTINUOUS/01	0.18
	REFERENCE KEYNOTES WITH ASSOCIATED			
P-ANNO-KEYN	LEADERS	7	CONTINUOUS/01	0.18
P-ANNO-LEGN	LEGENDS AND SYMBOLS KEYS	7	CONTINUOUS/01	0.18
P-ANNO-MATC	MATCH LINES	7	DASHDOT2/47	1.40
P-ANNO-NOTE	GENERAL NOTES AND GENERAL REMARKS	4	CONTINUOUS/03	0.35
P-ANNO-NPLT	NON-PLOTTING GRAPHIC INFORMATION	1	CONTINUOUS/01	0.18
Ρ-ΔΝΝΟ-ΡΔΤΤ	PATTERNING, POCHE, SHADING, AND	9	CONTINUOUS/01	0.18
		, 1		0.18
	REDUNES	3		0.75
	REVISIONS	7		0.23
	SCHEDULES	7		0.30
		5		0.10
F-ANNO-STIVID	MISC TEXT AND CALLOUTS WITH	0	000000000000000000000000000000000000000	0.10
P-ANNO-TEXT	ASSOCIATED LEADERS	7	CONTINUOUS/01	0.18
P-DETL-GRPH	GRAPHICS, GRIDLINES, NON-TEXT ITEMS	7	CONTINUOUS/01	0.18
P-DOMW-CPIP	COLD WATER PIPING	31	CONTINUOUS/04	0.50
P-DOMW-EQPM	HOT AND COLD WATER EQUIPMENT	7	CONTINUOUS/03	0.35
P-DOMW-EQPM-				
ACCS	EQUIPMENT ACCESS DOORS	18	CONTINUOUS/03	0.35
P-DOMW-FPIP	DOMESTIC FILTERED WATER PIPING	42	CONTINUOUS/04	0.50
P-DOMW-HPIP	HOT WATER PIPING	16	CONTINUOUS/04	0.50
P-DOMW-RISR	HOT AND COLD WATER RISERS	2	DASHED2	0.25
P-FLOR-IDEN	ROOM NAME, SPACE IDENTIFICATION	2	CONTINUOUS/02	0.25
	ROOM/SPACE IDENTIFICATION NUMBER	2	00111100003/02	0.23
P-FLOR-NUMB	AND SYMBOL	2	CONTINUOUS/02	0.25
P-LGAS-EQPM	EQUIPMENT	38	CONTINUOUS/03	0.35
P-LGAS-PIPE	PIPING	46	CONTINUOUS/04	0.50
P-MDGS-CAIR	COMPRESSED AIR	42	CONTINUOUS/04	0.50
P-MDGS-EQPM	EQUIPMENT	38	CONTINUOUS/03	0.35
P-MDGS-NITG	NITROGEN PIPING	46	CONTINUOUS/04	0.50
P-MDGS-NOXG	NITROUS OXIDE PIPING	46	CONTINUOUS/04	0.50
P-MDGS-OXYG	PURE O2 PIPING	46	CONTINUOUS/04	0.50
P-MDGS-SAIR	SCAVENGE AIR	46	CONTINUOUS/04	0.50



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LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
P-MDGS-VACU	MEDICAL VACUUM PIPING	46	CONTINUOUS/04	0.50
P-PENE-FLOR	FLOOR PENETRATIONS	2	DASHED2	0.25
P-PENE-ROOF	ROOF PENETRATIONS	3	DASHED2	0.25
P-PENE-WALL	WALL PENETRATIONS	4	DASHED2	0.25
P-SSWR-COND	CONDENSATE PIPING	42	CONTINUOUS*04	0.50
P-SSWR-EQPM	EQUIPMENT (E.G., SAND/OIL/WATER SEPARATORS)	37	CONTINUOUS/03	0.35
P-SSWR-FLDR	FLOOR DRAINS, SINKS, AND CLEANOUTS	5	CONTINUOUS/03	0.35
P-SSWR-PIPE	PIPING	45	CONTINUOUS/04	0.50
P-SSWR-RISR	SANITARY RISERS	45	DASHED2	0.50
P-SSWR-VENT	VENT PIPING	45	CONTINUOUS/04	0.50
P-STRM-PIPE	STORM DRAIN PIPING	41	CONTINUOUS/04	0.50
P-STRM-RFDR	ROOF DRAINS	41	CONTINUOUS/04	0.50
P-STRM-RISR	STORM DRAIN RISERS	41	DASHED2	0.50

STRUCTURAL- LEVEL/LAYER LIST

LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
S-ACCS-ADIT	ADITS IN GALLERIES AND PASSAGES	30	CONTINUOUS/03	0.35
S-ACCS-CHAM	CHAMBERS	22	CONTINUOUS/03	0.35
S-ACCS-EVTR	ELEVATORS	103	CONTINUOUS/03	0.35
	GALLERIES, CROSS OVERS, TRENCHES,			
S-ACCS-GLRY	ETC.	86	CONTINUOUS/03	0.35
S-ACCS-HTCH	HATCHES	102	CONTINUOUS/02	0.25
	LADDERS AND LADDER SAFETY	33		0.35
		12		0.35
S-ACCS-MISC	MISCELLANEOUS ACCESS	42	CONTINUOUS/03	0.35
S-ACCS-STRS	STAIRS	111	CONTINUOUS/03	0.35
S-ACCS-STRS-FRMG	STAIR FRAMING	127	CONTINUOUS/03	0.35
S-ACCS-TUNL	TUNNELS	182	CONTINUOUS/03	0.35
	BREAK LINES FOR ROUND AND			
S-ANNO-BRKL	SQUARE	230	CONTINUOUS/01	0.18
S-ANNO-CNTR	CENTER LINES NOT ON GRID	1	CENTER2/70	0.13
S-ANNO-COUT	CALLOUT BOUNDARY (DASHED)	173	DASHED	0.50
	WITNESS/EXTENSION LINES, DIM			
S-ANNO-DIMS		7	CONTINUOU/01S	0.18
S-ANNO-KEYN	ASSOCIATED LEADERS	7	CONTINUOUS/01	0.18
S-ANNO-LEGN	LEGENDS AND SYMBOLS KEYS	7	CONTINUOUS/01	0.18
S-ANNO-LEVL	LEVEL LINE	85	PHANTOM/61	0.18
S-ANNO-LOGO	PROJECT LOGOS	51	CONTINUOUS/02	0.25
S-ANNO-MATC	PLAN RELATED MATCHLINES	174	PHANTOM/65	0.70
	GENERAL NOTES AND GENERAL			
S-ANNO-NOTE	REMARKS	4	CONTINUOUS/03	0.35
S ANINO NDI T	NON-PLOTTING GRAPHIC	1		0.18
3-ANNO-NELT	PATTERNING POCHE SHADING AND	1	0001100003/01	0.10
S-ANNO-PATT	HATCHING	9	CONTINUOUS/01	0.18
S-ANNO-RDME	READ-ME INFORMATION	1	CONTINUOUS/01	0.18
S-ANNO-REDL	REDLINES	3	CONTINUOUS/02	0.25



LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
S-ANNO-REVC	REVISION CLOUDS SHADED	12	CONTINUOUS/03	0.35
S-ANNO-REVS	REVISION DELTA WITH NUMBER	7	CONTINUOUS/02	0.25
S-ANNO-SCHD	SCHEDULES	7	CONTINUOUS/01	0.18
S-ANNO-SECT	SECTION MARK LINEWORK AND TEXT	171	CONTINUOUS/02	0.25
S-ANNO-SYMB	MISCELLANEOUS SYMBOLS	5	CONTINUOUS/01	0.18
	STANDARD TEXT FOR PLANS AND			
S-ANNO-TEXT	DETAILS	2	CONTINUOUS/02	0.25
S-ANNO-TITL	DETAIL TITLE LINEWORK	133	CONTINUOUS/04	0.50
S-ANNO-TTLB	TITLE BLOCKS AND BORDERS	231	CONTINUOUS/02	0.25
S-ANNO-XREF	XREF INSERTION LAYER	7	CONTINUOUS/01	0.18
S-AREA-PATS	EXISTING AREA HATCHING FILL SHADED	7	CONTINUOUS/03	0.35
S-BEAM-CNTR	BEAM CENTERLINES	117	CENTER2/71	0.18
S-BEAM-LGAG	LIGHT GAGE STEEL BEAM	7	CONTINUOUS/04	0.50
S-REAM-PRIM	CONTINUOUS BEAM/PRIMARY BEAM	100		0.50
	DE AM DEDAD	109		0.30
J-DLAIVI-RDAR	GIRDERS OR SECONDARY BEAMS OF	1	CONTINUOU3/03	0.35
S-BEAM-SECD	TWO-WAY BEAM SYS	101	CONTINUOUS/03	0.35
S-BEAM-STEH	STEEL BEAMS DASHED	7	DASHED	0.70
S-BEAM-STEL	STEEL BEAMS & CMU LINTELS	7	CONTINUOUS/05	0.70
S-BEAM-WOOD	WOOD FRAMING BEAMS	7	CONTINUOUS/04	0.50
S-BRAC-FRAH	STEEL FRAME BRACING	7	DASHED	1.40
S-BRCG-DIAG	DIAGONAL BRACING	25	CONTINUOUS/03	0.35
S-BRCG-HORZ	HORIZONTAL BRACING	25	CONTINUOUS/03	0.35
S-BRCG-VERT	VERTICAL BRACING	199	CONTINUOUS/03	0.35
S-BRDG-ABUT	ABUTMENTS	42	CONTINUOUS/04	0.50
S-BRDG-ABUT-RBAR	ABUTMENT REBAR	1	CONTINUOUS/03	0.35
S-BRDG-BEAR	BRIDGE BEARING	88	CONTINUOUS/03	0.35
S-BRDG-BEAR-CNTR	BRIDGE BEARING CENTERLINES	117	CENTER2/71	0.18
S-BRDG-BENT	BENT CAP	2	CONTINUOUS/03	0.35
S-BRDG-BENT-CNTR	CENTERLINE OF BENTS	117	CENTER2/71	0.18
S-BRDG-BENT-RBAR	BENT CAP REBAR	1	CONTINUOUS/03	0.35
S-BRDG-CURB	CURBS/SIDEWALKS ON STRUCTURE	4	CONTINUOUS/03	0.35
S-BRDG-DIAP	DIAPHRAGMS	1	CONTINUOUS/03	0.35
S-BRDG-DIAP-RBAR	DIAPHRAGM REBAR	1	CONTINUOUS/03	0.35
S-BRDG-DRAN	DRAINS	22	CONTINUOUS/02	0.25
	FENCING RAILS, FABRIC, SUPPORTS,			
S-BRDG-FENC	AND GATES	2	FENCELINE1	0.25
S-BRDG-FEND	FENDERS	220	CONTINUOUS/03	0.35
S-BRDG-GIRD	GIRDERS	180	CONTINUOUS/03	0.35
S-BRDG-GIRD-CNTR	GIRDER CENTERLINE	117	CENTER2/71	0.18
S-BRDG-HEAD	HEADERS	247	CONTINUOUS/03	0.35
S-BRDG-PIER	PIERS	42	CONTINUOUS/04	0.50
S-BRDG-STRG	STRINGERS	101	CONTINUOUS/03	0.35
S-CCOL-CUT	CONCRETE COLUMNS ABOVE SLAB	5	CONTINUOUS/04	0.50
S-CCOL-HIDD	CONCRETE COLUMNS BELOW SLAB	192	HIDDEN2/53	0.35
S-CCOL-PATT	COLUMN SHADING	252	CONTINUOUS/04	0.50
S-CCOL-PROJ	CIP COLUMN	4	CONTINUOUS/03	0.35



LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
S-CCUR-PROJ	CURB EDGES ON PLAN	232	CONTINUOUS/03	0.35
S-CFRM-HIDD	HIDDEN LINE FORMS ON PLAN	144	HIDDEN2/23	0.35
S-CFRM-PROJ	CONCRETE FORMING EDGE ON PLAN	134	CONTINUOUS/04	0.50
	COLUMN CENTERLINES/WORKING			
S-COLS-CNTR	LINES	166	CENTER2/71	0.18
S-COLS-CONC	CONCRETE COLUMNS ABOVE SLAB	7	CONTINUOU/04S	0.50
S-COLS-CONH	CONCRETE COLUMNS BELOW SLAB	7	HIDDEN2/23	0.35
S-COLS-CONS	COLUMN SHADING	7	CONTINUOU/04S	0.50
S-COLS-POST	SHORT COLUMNS	74	CONTINUOUS/03	0.35
S-COLS-PREC	CONCRETE COLUMNS ABOVE SLAB	7	CONTINUOUS/04	0.50
S-COLS-PRES	COLUMN HATCHING FOR PRECAST	7	CONTINUOUS/01	0.18
S-COLS-PRIM	PRIMARY COLUMNS	2	CONTINUOUS/03	0.35
S-COLS-RBAR	COLUMN REBAR	1	CONTINUOUS/03	0.35
S-COLS-SECD	SECONDARY COLUMNS	34	CONTINUOUS/03	0.35
S-COLS-STEB	STEEL COLUMNS BELOW SLAB BUT NO HIDDEN	7	CONTINUOUS/01	0.18
S-COLS-STEH	STEEL COLUMNS BELOW SLAB	7	HIDDEN2/21	0.18
S-COLS-STEL	STEEL COLUMNS ABOVE SLAB	7	CONTINUOUS/02	0.25
S-COLS-WOOD	WOOD COLUMN ABOVE SLAB	7	CONTINUOUS/04	0.50
S-COLS-WOOH	WOOD COLUMN BELOW SLAB	7	HIDDEN2/23	0.35
S-CONC-BYND	CONCRETE EDGE BEYOND	191	CONTINUOUS/02	0.25
S-CONC-EDGE	CONCRETE EDGE	212	CONTINUOUS/03	0.35
S-CONC-HIDD	CONCRETE EDGE HIDDEN	151	HIDDEN/52	0.25
S-CONC-PATS	CONCRETE SHADING	7	CONTINUOUS/03	0.35
S-CONC-PATT	CONCRETE HATCHING	30	CONTINUOUS/01	0.18
S-CONC-SECT	CONCRETE EDGE IN SECTION	233	CONTINUOUS/04	0.50
S-CSLB-CTLJ	SLAB CONTROL JOINTS	137	CONTINUOUS/02	0.25
S-CSLB-EXPJ	SLAB EXPANSION JOINTS	90	CONTINUOUS/01	0.18
S-CSLB-PROJ	SLAB EDGES ON PLAN	40	CONTINUOUS/04	0.50
S-CSLB-RBAR	PLAN RELATED REBAR (NO PLINES)	152	CONTINUOUS/03	0.35
S-CSLB-SLOP	SLAB SLOPE LINE	130	CONTINUOUS/01	0.18
S-CSLB-TEND	PLAN RELATED TENDONS (NO PLINES)	94	CONTINUOUS/05	0.70
S-CURB-EDGE	CURB EDGES ON PLAN	7	CONTINUOUS/03	0.35
S-CWAL-CUT	CONCRETE WALL EDGE	153	CONTINUOUS/04	0.50
S-CWAL-HIDD	CONCRETE WALL EDGE HIDDEN	125	HIDDEN2/23	0.35
S-CWAL-PATT	WALL PATTERN SHADED	252	CONTINUOUS/02	0.25
S-CWAL-PROJ	CIP WALL	162	CONTINUOUS/03	0.35
S-DECK-BRDG	BRIDGE DECK	22	CONTINUOUS/03	0.35
S-DECK-BRDG-RBAR	BRIDGE DECK REBAR	1	CONTINUOUS/03	0.35
S-DECK-EDGE	DECK EDGES ON PLAN	7	CONTINUOUS/02	0.25
S-DECK-FLOR	FLOOR DECK	186	CONTINUOUS/02	0.25
S-DECK-FLOR-OPNG	FLOOR DECK OPENINGS	3	DASHED2	0.25
S-DECK-ROOF	ROOF DECK	116	CONTINUOUS/02	0.25
S-DECK-ROOF-OPNG		3	DASHED2	0.25
S-DEMO	DEMO EXISTING EDGES	246	PHANTOM/63	0.35
S-DETL-GRPH	GRAPHICS, GRIDLINES, NON-TEXT	7		0.18
	DETAIL TITLE LARGE TEXT AND	1	00111100003/01	0.10
S-DETL-IDEN	LINEWORK	7	CONTINUOUS/04	0.50



LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
S-DETL-TEXT	DETAIL TITLE SMALL TEXT	7	CONTINUOUS/02	0.25
S-DRAI-EDGH	FOUNDATION DRAIN (SHADED)	7	DASHED	0.70
S-EDGE	ARCHITECTURAL EDGES	7	PHANTOM2/61	0.18
S-EDGE-EXSE	EXISTING EDGE IN PLAN OR DETAIL	7	DASHED2	0.25
S-EDGE-EXSH	NEARLY HIDDEN EXISTING EDGES	7	HIDDEN2/22	0.25
S-EDGE-EXSS	SHORT EXISTING EDGES	7	HIDDEN2/22	0.25
S-EROS-BARR	VAPOR/CAPILLARY WATER BARRIERS	115	CONTINUOUS/02	0.25
S-EROS-GABN	GABIONS	179	CONTINUOUS/02	0.25
S-EROS-PVMT	SLOPE PAVING	179	CONTINUOUS/02	0.25
	RIPRAP, STONE PROTECTION, JETTIES,	107		0.25
S-ERUS-RRAP		107		0.25
S-EASI		141		0.25
S-EXST-PATT	EXISTING AREA HATCHING FILL	185	CONTINUOUS/01	0.18
S-FABR-EMBD	AROUND OPENINGS)	201	CONTINUOUS/03	0.35
S-FABR-HOIS	HOIST STRUCTURES	183	CONTINUOUS/02	0.25
	LINE HOOKS, LIFTING HOOKS, CHECK	100		0.05
S-FABR-HOOK	POSISEIC.	183	CONTINUOUS/02	0.25
S-FABR-MOOR	MOORING BITS, CHOCKS, RINGS	183	CONTINUOUS/03	0.35
S-FABR-PLAT	PLATES	183	CONTINUOUS/03	0.35
S-FABR-TRSH	TRASH RACKS, INTAKE SCREENS	183	CONTINUOUS/03	0.35
S-FLOR-OPNX	OPENING X IN STRUCTURE	210	PHANTOM/60	0.13
S-ENDN-ANCH	ANCHOR PILES, BLOCKS, STRANDS, DEADMEN_ANCHORS	182	CONTINUOUS/03	0.35
S-FNDN-CNTR	FOUNDATION CENTERI INES	198	CENTER2/71	0.18
S-FNDN-CRTN	CARTON FORMS	7	CONTINUOUS/02	0.25
	FOUNDATION DRAINAGE FEATURES			
S-FNDN-DRAN	AND OBJECTS	206	CONTINUOUS/02	0.25
S-FNDN-EDGE	FOUNDATION EDGES	7	CONTINUOUS/04	0.50
S-FNDN-EDGH	FOUNDATION EDGES HIDDEN	7	HIDDEN/53	0.35
S-FNDN-FTNG	FOOTINGS	182	CONTINUOUS/03	0.35
S-FNDN-FTNG-RBAR	FOOTING REBAR	1	CONTINUOUS/03	0.35
S-FNDN-GRBM	GRADE BEAMS	36	CONTINUOUS/04	0.50
S-FNDN-HIDD	FOUNDATION EDGES HIDDEN	105	HIDDEN/53	0.35
S-FNDN-PATS	GRADE LEVEL SCREENED HATCHING	7	CONTINUOUS/00	0.13
S-FNDN-PCAP	PILE CAPS	36	CONTINUOUS/03	0.35
S-FNDN-PEDS	FOUNDATION PEDESTALS/PADS	190	CONTINUOUS/03	0.35
S-FNDN-PIEH	PIER OBJECTS HIDDEN	7	HIDDEN/52	0.25
S-FNDN-PIER	PIERS, DRILLED SHAFTS, CAISSONS	196	CONTINUOUS/04	0.50
S-FNDN-PILE	PILES	166	CONTINUOUS/03	0.35
S-FNDN-PILH	PILE OBJECTS	7	HIDDEN2/22	0.25
S-FNDN-PROJ	FOUNDATION EDGES	193	CONTINUOUS/04	0.50
S-FNDN-RIBS	RIBBED MAT FOUNDATION	36	CONTINUOUS/03	0.35
S-FNDN-TRMT	FOUNDATION TREATMENT (GROUTING)	28	CONTINUOUS/03	0.35
S-FNDN-TUNL	SERVICE TUNNEL/DUCT BANKS	182	CONTINUOUS/03	0.35
S-FSTN-ABLT	ANCHOR BOLTS	86	CONTINUOUS/02	0.25
	FASTENERS AND CONNECTIONS			
S-FSTN-MISC	(NON-SPECIFIC)	35	CONTINUOUS/02	0.25
S-GATE-ANCH	GATE ANCHORAGES	86	CONTINUOUS/02	0.25



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LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
S-GATE-ANCH-DEAD	DEAD MAN ANCHORAGE	86	CONTINUOUS/02	0.25
S-GATE-ARMS	ARM	25	CONTINUOUS/03	0.35
S-GATE-AXIS	GATE AXIS AND CENTERLINES	117	CENTER2/71	0.18
S-GATE-BLKH	BULKHEAD	1	CONTINUOUS/03	0.35
S-GATE-BLKH-NDLB	BULKHEAD NEEDLES BEAM	101	CONTINUOUS/03	0.35
S-GATE-BLKH-NDLS	BULKHEAD NEEDLES	35	CONTINUOUS/03	0.35
S-GATE-CONN	GATE CONNECTS, LINKS	86	CONTINUOUS/03	0.35
S-GATE-DIAG	DIAGONALS, GUSSETS, SLEEVE NUT	35	CONTINUOUS/03	0.35
S-GATE-DIAG-CHAN	DIAGONAL CHANNELS	35	CONTINUOUS/03	0.35
S-GATE-DIAG-GUST	DIAGONAL GUSSET PLATE	35	CONTINUOUS/03	0.35
S-GATE-DIAG-SUPT	DIAGONAL GUSSET PLATE SUPPORT	35	CONTINUOUS/03	0.35
S-GATE-DIAP	DIAPHRAGMS	1	CONTINUOUS/03	0.35
S-GATE-FEND	GATE FENDERS	220	CONTINUOUS/03	0.35
S-GATE-FLNG	FLANGE	1	CONTINUOUS/03	0.35
S-GATE-FLNG-DNST	DOWNSTREAM FLANGE	1	CONTINUOUS/03	0.35
S-GATE-FLNG-GIRD	GIRDER FLANGE	86	CONTINUOUS/03	0.35
S-GATE-FLNG-UPST	UPSTREAM FLANGE	1	CONTINUOUS/03	0.35
S-GATE-GIRD-WEBP	GIRDER WEB PLATES	33	CONTINUOUS/03	0.35
S-GATE-GUDG	GUDGEON	5	CONTINUOUS/03	0.35
S-GATE-GUDG-HOOD	GUDGEON HOOD	5	CONTINUOUS/03	0.35
S-GATE-GUDG-HUB	GUDGEON HUB	5	CONTINUOUS/03	0.35
S-GATE-GUDG-PIN	GUDGEON PIN	5	CONTINUOUS/03	0.35
S-GATE-GUDG-STIF	GUDGEON (HOOD) STIFFENER	5	CONTINUOUS/03	0.35
S-GATE-GUDG-SUPT	GUDGEON (PIN) SUPPORT	5	CONTINUOUS/03	0.35
S-GATE-HORZ	HORIZONTAL ROLLED SHAPES	109	CONTINUOUS/03	0.35
S-GATE-ICST	INTERCOSTALS	103	CONTINUOUS/03	0.35
S-GATE-JACK	GATE JACK	1	CONTINUOUS/03	0.35
S-GATE-JACK-HORZ	GATE JACK – HORIZONTAL	1	CONTINUOUS/03	0.35
S-GATE-JACK-VERT	GATE JACK – VERTICAL	1	CONTINUOUS/03	0.35
S-GATE-LIFT	LIFTING MECHANISM	183	CONTINUOUS/03	0.35
S-GATE-LTCH	LATCHING DEVICE	1	CONTINUOUS/03	0.35
S-GATE-LTCH-BOTM	LATCHING DEVICE – BOTTOM	1	CONTINUOUS/03	0.35
S-GATE-LTCH-TOP	LATCHING DEVICE – TOP	1	CONTINUOUS/03	0.35
S-GATE-LUBE	LUBRICATION SYSTEM	1	CONTINUOUS/02	0.25
S-GATE-MISC	GATES INCIDENTAL TO STRUCTURE	1	CONTINUOUS/02	0.25
S-GATE-MITR-ASSY	MITER GUIDE ASSEMBLY	88	CONTINUOUS/03	0.35
S-GATE-PIN	GATE PINS	86	CONTINUOUS/02	0.25
S-GATE-PNTL	PINTLE BALL, BUSHING & BASE	86	CONTINUOUS/03	0.35
S-GATE-PNTL-CAST	PINTLE CASTING	116	CONTINUOUS/03	0.35
S-GATE-QOIN	QUOIN	88	CONTINUOUS/03	0.35
S-GATE-QOIN-FLNG	QUOIN FLANGE	88	CONTINUOUS/03	0.35
S-GATE-QOIN-MITR	QUION, MITER	88	CONTINUOUS/03	0.35
S-GATE-QOIN-STIF	QUOIN STIFFENER	88	CONTINUOUS/03	0.35
S-GATE-QOIN-TRST	QUOIN THRUST PLATE	88	CONTINUOUS/03	0.35
S-GATE-QOIN-WALL	QUOIN, WALL	88	CONTINUOUS/03	0.35
S-GATE-QOIN-WEB	QUOIN WEB	88	CONTINUOUS/03	0.35
S-GATE-RAIL	RAILS AND GUIDES	88	CONTINUOUS/03	0.35



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LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
S-GATE-SEAL	GATE SEAL	107	CONTINUOUS/03	0.35
S-GATE-SEAL-HORZ	GATE SEAL – HORIZONTAL	107	CONTINUOUS/03	0.35
S-GATE-SEAL-VERT	GATE SEAL – VERTICAL	107	CONTINUOUS/03	0.35
S-GATE-SHOE	GATE SHOE	183	CONTINUOUS/03	0.35
S-GATE-SKIN	SKIN PLATES	183	CONTINUOUS/02	0.25
S-GATE-STIF	STIFFENER	1	CONTINUOUS/03	0.35
S-GATE-STIF-LONG	STIFFENER – LONGITUDINAL	1	CONTINUOUS/03	0.35
S-GATE-STIF-TRAN	STIFFENER – TRANSVERSE	1	CONTINUOUS/03	0.35
S-GATE-STOP	STOPLOGS	182	CONTINUOUS/03	0.35
S-GATE-THBL	THIMBLE	179	CONTINUOUS/02	0.25
S-GATE-TRST	THRUST PLATE	23	CONTINUOUS/02	0.25
S-GATE-TRUN	TRUNION	5	CONTINUOUS/03	0.35
S-GATE-VALV	VALVES (GENERAL SHAPE)	21	CONTINUOUS/03	0.35
S-GATE-VERT	ROLLED VERTICAL SHAPES	199	CONTINUOUS/03	0.35
S-GATE-WALK	WALKWAY	103	CONTINUOUS/03	0.35
S-GATE-WALK-FRMG	WALKWAY – FRAMING	103	CONTINUOUS/03	0.35
S-GATE-WALK-GRTG	WALKWAY – GRATING	103	CONTINUOUS/03	0.35
S-GATE-WALK-SUPT	WALKWAY – SUPPORT	103	CONTINUOUS/03	0.35
S-GATE-WEB	WEB	33	CONTINUOUS/03	0.35
S-GRID-DIMS	GRID DIMENSIONS	45	CONTINUOUS/02	0.25
S-GRID-HORZ	GRID LINES (HORIZONTAL)	5	CENTER2/71	0.18
S-GRID-HORZ-IDEN	COLUMN I.D. TAGS (HORIZONTAL)	5	CONTINUOUS/02	0.25
S-GRID-IDEN	GRID BUBBLES	132	CONTINUOUS/03	0.35
S-GRID-LINE	GRID LINES	43	CENTER2/71	0.18
S-GRID-VERT	GRID LINES (VERTICAL)	5	CENTER2/71	0.18
S-GRID-VERT-IDEN	COLUMN I.D. TAGS (VERTICAL)	5	CONTINUOUS/02	0.25
S-GRLN-SURF-EXIS	EXISTING GROUND	110	DASHED	0.25
S-GRLN-SURF-FNSH	FINISHED GRADE	102	CONTINUOUS/03	0.35
S-HYDR-BAFL	BAFFLE BLOCKS, SPLASH PADS	23	CONTINUOUS/03	0.35
S-HYDR-BASN	STILLING AND SETTLING BASINS	23	CONTINUOUS/03	0.35
	CHANNEL (DOES NOT INCLUDE			
S-HYDR-CHAN	EARTHEN STRUCTURES)	23	CONTINUOUS/03	0.35
S-HYDR-COFF		182	CONTINUOUS/03	0.35
	DIVERSIONARY/BYPASS CONDUITS	23	CONTINUOUS/03	0.35
S-HYDR-DAM		23		0.35
		23		0.35
S-HYDR-FLUM	FLUME	23		0.35
S-HYDR-INITK		23		0.35
		23		0.35
S-HVDR-SW/AV		23		0.35
		23		0.35
		23		0.35
3-31413-01413	CONTROL/CONTRACTION JOINTS	23	000000000000000000000000000000000000000	0.23
S-JNTS-CTLJ	(SAW CUT)	23	CONTINUOUS/02	0.25
	EXPANSION JOINTS, JOINT MATERIALS			0.07
S-JNIS-EXPJ	(E.G., FELI)	39		0.25
S-JNTS-STUC		246	CONTINUOUS/02	0.25
S-JOIS-BRGX	BRIDGING	18	CONTINUOUS/03	0.35



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LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
S-JOIS-BRIH	JOIST BRIDGING	7	HIDDEN2/23	0.35
S-JOIS-GIRD	JOIST GIRDERS	23	CONTINUOUS/04	0.50
S-JOIS-LGAG	LIGHT GAGE STEEL JOIST	7	CONTINUOUS/03	0.35
S-JOIS-PERI	PERIMETER CHANNEL OR RIM JOIST	183	CONTINUOUS/03	0.35
S-JOIS-PRIM	PRIMARY JOISTS	103	CONTINUOUS/03	0.35
S-JOIS-SECD	SECONDARY JOISTS	119	CONTINUOUS/03	0.35
S-JOIS-STEL	STEEL JOIST	7	DIVIDE2	0.50
	PARTIAL LENGTH OR TRIMMER FLOOR	110		0.35
		7		0.35
S-J GAG-BYND		7		0.35
S-LGAG-EDGE		7		0.10
S-LGAG-EDGH		7		0.23
S-I GAG-PATT		7		0.18
S-LGAG-SECT	LIGHT GAGE STEEL EDGES IN SECTION	7	CONTINUOUS/03	0.35
S-MASN-BYND	MASONRY EDGES BEYOND	31	CONTINUOUS/02	0.25
S-MASN-EDGE	MASONRY EDGES	225	CONTINUOUS/03	0.35
S-MASN-EDGH	MASONRY EDGES HIDDEN	7	HIDDEN/52	0.25
S-MASN-HIDD	MASONRY EDGES HIDDEN	25	HIDDEN/52	0.25
S-MASN-PATS	MASONRY LINEWORK SHADED	7	CONTINUOUS/03	0.35
S-MASN-PATT	MASONRY HATCHING	86	CONTINUOUS/01	0.18
S-MASN-SECT	MASONRY EDGE IN SECTION	126	CONTINUOUS/04	0.50
S-MFR-PART	MANUFACTURED PARTS	242	CONTINUOUS/01	0.18
S-MWAL-CUT	MASONRY WALL SECTION	52	CONTINUOUS/03	0.35
S-MWAL-HIDD	MASONRY WALL EDGE HIDDEN	62	HIDDEN/52	0.25
S-MWAL-PATT	MASONRY HATCH	34	CONTINUOUS/01	0.18
S-MWAL-PROJ	MASONRY WALL EDGE	71	CONTINUOUS/02	0.25
S-NIC	ARCHITECTURAL EDGES	214	PHANTOM2/61	0.18
S-OTLN-BLDG	BUILDING OUTLINE	1	PHANTOM/62	0.25
S-OTLN-FLOR	FLOOR OUTLINE	1	PHANTOM/62	0.25
S-OTLN-OPNG	OPENINGS	1	PHANTOM/62	0.25
S-OTLN-ROOF	ROOF	1	PHANTOM/62	0.25
S-OTLN-STRC	MISC. STRUCTURES	1	PHANTOM/62	0.25
S-PADS-EQPM	EQUIPMENT PADS	30	CONTINUOUS/03	0.35
S-PANS-EDGH	PAN FORMING LINES ON PLAN	7	HIDDEN/52	0.25
S-PCOL-CUT	PRECAST COLUMN SECTION	161	CONTINUOUS/04	0.50
S-PCOL-HIDD	PRECAST COLUMN HIDDEN	165	HIDDEN2/23	0.35
S-PCOL-PATT	COLUMN HATCHING FOR PRECAST	10	CONTINUOUS/01	0.18
S-PCOL-PROJ	PRECAST COLUMN EDGE	172	CONTINUOUS/03	0.35
S-PIPE-CULV	PRECAST/MANUFACTURED CULVERTS	13	CONTINUOUS/03	0.35
S-PLAT-FRMG	PLATFORM FRAME/STRINGERS	101	CONTINUOUS/03	0.35
S-PLAT-GRTG	PLATFORM GRATING	15	CONTINUOUS/02	0.25
S-PLAT-WALK	PLATFORM WALKWAY	126	CONTINUOUS/03	0.35
S-PREC-BYND	PRECAST EDGE BEYOND	70	CONTINUOUS/02	0.25
S-PREC-EDGE	PRECAST EDGE	181	CONTINUOUS/03	0.35
S-PREC-EDGH	CONCRETE EDGE HIDDEN	7	HIDDEN/52	0.25
S-PREC-HIDD	PRECAST EDGE HIDDEN	143	HIDDEN/52	0.25
S-PREC-PATT	PRECAST HATCHING	112	CONTINUOUS/03	0.35


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LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
S-PREC-SECT	PRECAST EDGE IN SECTION	202	CONTINUOUS/04	0.50
S-PSLB-PROJ	PRECAST SLAB EDGE	103	CONTINUOUS/04	0.50
S-PWAL-CUT	PRECAST WALL SECTION	123	CONTINUOUS/03	0.35
S-PWAL-HIDD	PRECAST WALL EDGE HIDDEN	63	HIDDEN2/22	0.25
S-PWAL-PATT	WALL PATTERN FOR PRECAST	190	CONTINUOUS/01	0.18
S-PWAL-PROJ	PRECAST WALL EDGE	23	CONTINUOUS/02	0.25
S-RBAR-EDGE	REINFORCING STEEL IN DETAIL	110	CONTINUOUS/05	0.70
S-RBAR-SECT	REINFORCING STEEL IN DETAIL	24	CONTINUOUS/01	0.18
	STEEL REINFORCING, WELDED WIRE			0.05
S-REIN-RBAR	FABRIC	1	CONTINUOUS/03	0.35
S-REIN-TEND-HORZ	HORIZONTAL TENDONS	185	CONTINUOUS/04	0.50
S-REIN-TEND-VERT	VERTICAL TENDONS	185	CONTINUOUS/04	0.50
S-SAFE-FENC	AND GATES	2	CONTINUOUS/02	0.25
S-SAFE-GRAL	GUARDRAILS	116	CONTINUOUS/03	0.35
S-SAFE-HRAL	HANDRAILS, RAILINGS	2	CONTINUOUS/02	0.25
S-SAFE-PARA	PARAPET/JERSEY BARRIER	2	CONTINUOUS/04	0.50
S-SAFE-PARA-RBAR	PARAPET/JERSEY BARRIER REBAR	1	CONTINUOUS/03	0.35
S-SAFE-WATR	WATERWAY SAFETY BARRIERS	2	CONTINUOUS/03	0.35
S-SBRC-SYMB	BRACE – SYMBOL	122	HIDDEN2/24	0.50
S-SCOL-CFSF	CFS COLUMN	182	CONTINUOUS/04	0.50
S-SCOL-CUT	STEEL COLUMNS ABOVE SLAB	211	CONTINUOUS/02	0.25
S-SCOL-HIDD	STEEL COLUMNS BELOW SLAB	115	HIDDEN2/21	0.18
S-SCTN-BOUN	SECTION MARK BOUNDARY (DASHED)	7	DASHED	0.50
S-SCTN-MARK	SECTION MARK LINEWORK AND TEXT	7	CONTINUOUS/02	0.25
S-SDEC-HIDD	ROOF – HIDDEN	201	HIDDEN/52	0.25
S-SDEC-PROJ	DECK EDGES ON PLAN	224	CONTINUOUS/03	0.35
S-SECT-IDEN	COMPONENT IDENTIFICATION	7	CONTINUOUS/01	0.18
S-SECT-MBND	MATERIAL BEYOND SECTION CUT	1	CONTINUOUS/01	0.18
S-SECT-MOUT		4		0.35
S-SECT-PATT	TEXTURES AND HATCH PATTERNS	9	CONTINUOUS/01	0.03
S-SERM-BEAM	STEEL BEAMS & CMULINTELS	215	CONTINUOUS/05	0.70
S-SFRM-BRGX	JOIST BRIDGING	106	HIDDEN2/23	0.35
S-SFRM-CESE	CES BEAM	33	CONTINUOUS/04	0.50
	STEEL FRAMING - HORIZONTAL			
S-SFRM-HBRC	BRACING	223	HIDDEN2/24	0.50
S-SFRM-HIDD	STEEL BEAMS DASHED	74	DASHED	0.70
S-SFRM-JOIS	STEEL JOIST	243	CONTINUOUS/04	0.50
S-SFRM-KICK	STEEL FRAMING - KICKER BRACING	170	HIDDEN2/23	0.35
S-SFRM-SYMB	STEEL FRAMING – CONNECTION	83	CONTINUOUS/04	0.50
S-SFRM-TRUS	TRUSS OBJECT LINEWORK	154	CONTINUOUS/05	0.70
S-SIGN-EXTN	EXTRUSIONS	101	CONTINUOUS/03	0.35
S-SIGN-FRMG	FRAMING & CONNECTIONS	2	CONTINUOUS/03	0.35
S-SIGN-PANL	SIGN PANELS	107	CONTINUOUS/03	0.35
S-SIGN-SPRT	SUPPORTS	1	CONTINUOUS/03	0.35
S-SIGN-TEXT	SIGNAGE TEXT	181	CONTINUOUS/03	0.35
S-SLAB-APPR	APPROACH SLAB	190	CONTINUOUS/03	0.35
S-SLAB-APPR-RBAR	APPROACH SLAB REBAR	1	CONTINUOUS/03	0.35



LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
S-SLAB-EDGE	EDGE OF SLAB	190	CONTINUOUS/03	0.35
S-SLAB-EXPJ	SLAB EXPANSION JOINTS	7	CONTINUOUS/01	0.18
S-SLAB-JOIN	SLAB JOINT LINES ON PLAN (SHADED)	7	CONTINUOUS/05	0.70
S-SLAB-OPEN	OPENING X IN STRUCTURE	7	PHANTOM2/61	0.18
S-SLAB-OPNG	OPENINGS (AND DEPRESSIONS)	3	DASHED2	0.25
S-SLAB-RBAR	SLAB REBAR	1	CONTINUOUS/03	0.35
S-SLAB-SECD	SECOND POUR, SLAB CAP	190	CONTINUOUS/03	0.35
S-SLAB-SILL	SILL	190	CONTINUOUS/03	0.35
S-SLAB-SLOP	SLAB SLOPE LINE	7	CONTINUOUS/01	0.18
S-SLAB-STRI	SLAB STRIP ZONES (SHADED)	7	HIDDEN/54	0.50
S-SLAB-TEND	PLAN RELATED TENDONS (NO PLINES)	7	CONTINUOUS/05	0.70
S-SOIL-PATT	GRADE HATCHING	95	CONTINUOUS/00	0.13
S-SOIL-SECT	TOP OF EARTH	72	CONTINUOUS/04	0.50
S-SOIL-WTRP	WATERPROOFING MEMBRANE	142	HIDDEN2/23	0.35
S-STEL-BYND	STEEL EDGES BEYOND	20	CONTINUOUS/01	0.18
S-STEL-DECK	STEEL DECK IN SECTION	7	CONTINUOUS/04	0.50
S-STEL-EDGE	STEEL EDGE	117	CONTINUOUS/02	0.25
S-STEL-EDGH	STEEL EDGES HIDDEN	7	HIDDEN2/22	0.25
S-STEL-PART	STEEL MANUFACTURED PARTS	7	CONTINUOUS/01	0.18
S-STEL-PATT	STEEL HATCHING	75	CONTINUOUS/01	0.18
S-STEL-SECT	STEEL EDGES IN SECTION	111	CONTINUOUS/03	0.35
S-STEL-SYMB	STEEL DECK IN SECTION	55	CONTINUOUS/04	0.50
S-STIF-LONG	STIFFENERS – LONGITUDINAL	2	CONTINUOUS/03	0.35
S-STIF-TRAV	STIFFENERS – TRANSVERSE	2	CONTINUOUS/03	0.35
S-TCOL-CUT	WOOD COLUMN ABOVE SLAB	35	CONTINUOUS/04	0.50
S-TCOL-HIDD	WOOD COLUMN BELOW SLAB	205	HIDDEN2/23	0.35
S-TFRM-BEAM	WOOD FRAMING BEAMS	210	CONTINUOUS/04	0.50
S-TFRM-JOIS	WOOD FRAMING JOIST	51	CONTINUOUS/03	0.35
S-TRUS-PRIM	PRIMARY TRUSSES	7	CONTINUOUS/04	0.50
S-TRUS-SECD	SECONDARY TRUSSES	5	CONTINUOUS/03	0.35
S-TRUS-STEL	TRUSS OBJECT LINEWORK	7	CONTINUOUS/05	0.70
S-WALL-ABUT	ABUTMENTS	42	CONTINUOUS/03	0.35
S-WALL-COFF	CUTOFF WALL	86	CONTINUOUS/03	0.35
S-WALL-CONC	CONCRETE WALL EDGE	7	CONTINUOUS/04	0.50
S-WALL-CONH	CONCRETE WALL EDGE HIDDEN	7	HIDDEN2/23	0.35
S-WALL-CURT	CURTAIN/BREAST WALL	196	CONTINUOUS/03	0.35
S-WALL-FULL	WALL GOING TO THE TOP OF THE STRUCTURE	2	CONTINUOUS/03	0.35
S-WALL-GARD	GUARD/GUIDE WALLS	196	CONTINUOUS/03	0.35
S-WALL-LOAD	LOAD BEARING WALLS	2	CONTINUOUS/03	0.35
S-WALL-MASH	MASONRY WALL EDGE HIDDEN	7	HIDDEN/52	0.25
S-WALL-MASN	MASONRY WALL EDGE	7	CONTINUOUS/03	0.35
S-WALL-MASS	MASONRY WALL HATCH SHADED	1	CONTINUOUS/01	0.18
	MECHANICALLY STABILIZED EARTH			
S-WALL-MSE	(MSE) WALL	196	CONTINUOUS/03	0.35
S-WALL-NONL	NON-LOAD BEARING WALLS	196	CONTINUOUS/03	0.35
S-WALL-OPNX	OPENING X IN WALL	210	PHANTOM2/60	0.13
S-WALL-PATS	WALL PATTERN SHADED	7	CONTINUOUS/02	0.25



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LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
S-WALL-PATT	WALL PATTERN FOR PRECAST	7	CONTINUOUS/01	0.18
S-WALL-PCST	PRE-CAST CONCRETE WALLS	55	CONTINUOUS/03	0.35
S-WALL-PREC	PRECAST WALL	7	CONTINUOUS/04	0.50
S-WALL-PREH	PRECAST	7	CONTINUOUS/02	0.25
S-WALL-PRHT	WALL THAT DOES NOT REACH TO THE TOP OF THE STRUCTURE	196	CONTINUOUS/03	0.35
S-WALL-RBAR	WALL REBAR	1	CONTINUOUS/03	0.35
S-WALL-RTWL	RETAINING WALL (FLOOD WALLS, WINGWALLS, ETC.)	196	CONTINUOUS/03	0.35
S-WALL-SHEA	SHEAR WALLS	186	CONTINUOUS/03	0.35
S-WALL-STUD	STUD WALLS	182	CONTINUOUS/03	0.35
S-WATR-SURF	WATER SURFACE	25	CONTINUOUS/02	0.25
S-WOOD-BYND	WOOD EDGES BEYOND	82	CONTINUOUS/02	0.25
S-WOOD-EDGE	WOOD EDGES	141	CONTINUOUS/03	0.35
S-WOOD-EDGH	WOOD EDGES HIDDEN	7	HIDDEN2/22	0.25
S-WOOD-PATT	WOOD DETAILED HATCHING	150	CONTINUOUS/01	0.18
S-WOOD-SECT	WOOD EDGES IN SECTION	53	CONTINUOUS/04	0.50
S-WWAY-DLPH	DOLPHINS (NOT PART OF BRIDGES, LOCKS AND GUIDEWALLS)	23	CONTINUOUS/03	0.35
S-WWAY-FEND	FENDERS	220	CONTINUOUS/03	0.35
S-WWAY-MOOR	MOORING CELLS	183	CONTINUOUS/03	0.35

TELECOMMUNICATIONS- LEVEL/LAYER LIST

LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
	WITNESS/EXTENSION LINES, DIM			
T-ANNO-DIMS	TERMINATORS, DIM TEXT	7	CONTINUOUS/01	0.18
	REFERENCE KEYNOTES WITH ASSOCIATED	7		0.10
I-ANNO-KEYN	LEADERS	/	CONTINUOUS/01	0.18
T-ANNO-LEGN	LEGENDS AND SYMBOLS KEYS	7	CONTINUOUS/01	0.18
T-ANNO-MATC	MATCH LINES	7	DASHDOT2/47	1.40
T-ANNO-NOTE	GENERAL NOTES AND GENERAL REMARKS	4	CONTINUOUS/03	0.35
T-ANNO-NPLT	NON-PLOTTING GRAPHIC INFORMATION	1	CONTINUOUS/01	0.18
	PATTERNING, POCHE, SHADING, AND			
T-ANNO-PATT	HATCHING	9	CONTINUOUS/01	0.18
T-ANNO-RDME	READ-ME INFORMATION	1	CONTINUOUS/01	0.18
T-ANNO-REDL	REDLINES	3	CONTINUOUS/02	0.25
T-ANNO-REVS	REVISIONS	7	CONTINUOUS/04	0.50
T-ANNO-SCHD	SCHEDULES	7	CONTINUOUS/01	0.18
T-ANNO-SYMB	MISCELLANEOUS SYMBOLS	5	CONTINUOUS/01	0.18
	MISCELLANEOUS TEXT AND CALLOUTS			
T-ANNO-TEXT	WITH LEADERS	7	CONTINUOUS/01	0.18
T-CABL-COAX	COAX CABLE	42	DASHED2	0.50
T-CABL-FIBR	FIBER OPTICS CABLE	42	CONTINUOUS/04	0.50
T-CABL-IDEN	CABLE IDENTIFIERS	4	CONTINUOUS/03	0.35
T-CABL-MULT	MULTI-CONDUCTOR CABLE	42	CONTINUOUS/04	0.50
T-CABL-TRAY	CABLE TRAYS AND WIREWAYS	45	CONTINUOUS/04	0.50
T-COMM-JBOX	JUNCTION BOXES	42	CONTINUOUS/04	0.50
T-DETL-GRPH	GRAPHICS, GRIDLINES, NON-TEXT ITEMS	7	CONTINUOUS/01	0.18
T-DIAG-GRPH	GRAPHICS, GRIDLINES, NON-TEXT ITEMS	7	CONTINUOUS/01	0.18
T-DIAG-IDEN	IDENTIFIER TAGS, SYMBOL MODIFIERS,	4	CONTINUOUS/03	0.35



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LAYER	DESCRIPTION	COLOR	LINETYPE	WEIGHT
	AND TEXT			
	INFORMATION AND NOTES FOR OTHER			
T-DISC-INFO	DISCIPLINES	7	CONTINUOUS/01	0.18
	DISTRIBUTION EQUIPMENT FOR COPPER			
T-EQPM-COMB	AND FIBER OPTICS	7	CONTINUOUS/04	0.50
T-EQPM-COPP	DISTRIBUTION EQUIPMENT FOR COPPER	7	CONTINUOUS/04	0.50
	DISTRIBUTION EQUIPMENT FOR FIBER			
T-EQPM-FIBR	OPTIC	7	CONTINUOUS/04	0.50
	OTHER TELECOMMUNICATIONS			
T-EQPM-OTHR	EQUIPMENT	7	CONTINUOUS/04	0.50
	RELAYS, RESISTORS, CAPACITORS, AND			
T-EQPM-RELA	INDUCERS	7	CONTINUOUS/04	0.50
	ROOM NAME, SPACE IDENTIFICATION	_		
T-FLOR-IDEN	TEXT	2	CONTINUOUS/02	0.25
	ROOM/SPACE IDENTIFICATION NUMBER	0		0.05
I-FLOR-NUIVIB		2	CONTINUOUS/02	0.25
	COMBINATION TELEPHONE AND	45		
I-JACK-COIVIB		45	CONTINUOUS/04	0.50
T-JACK-DATA	DATA/LAN JACKS	45	CONTINUOUS/04	0.50
	IDENTIFIER TAGS, SYMBOL MODIFIERS,			
T-JACK-IDEN	ANDTEXT	4	CONTINUOUS/03	0.35
T-JACK-PHON	TELEPHONE JACKS	45	CONTINUOUS/04	0.50



AUTOCAD PLOT STAMP

The purpose of these instructions is to illustrate how to set up the Plot Stamp setting for your AutoCAD project. Please note that this set of instructions and figures were created using AutoCAD 2008.

- 1. In the AutoCAD command box type "plot" (shortcut: ctrl + p) and hit ENTER.
- 2. Add checkmark to "plot stamp on." Ensure that the plot window matches Figure 1.

🚇 Plot - 112			? 🛛
Page setup			i Learn about Plotting Plot style table (pen assignments)
N <u>a</u> me:	<none></none>	✓ Add	TDPACOLOR.CTB (missing) 🔽 💋
Printer/plotter	Standard St	Properties	Shaded viewport options Shade plot As displayed
Plotter: I Where: F Description:	DWF6 ePlot - DWF ePlot - by Autodesk File	→ 30.0 [°] ↓ + + + 2:0°° · - →	Quality Normal DPI 100 Plot options Plot in background
Paper size ARCH full blee	ed E1 (30.00 x 42.00 Inches)	Number of copies	 Plot object lineweights Plot with plot styles Plot paperspace last
Plot area <u>W</u> hat to plot: Window	✓ Window<	Plot scale Fit to paper Scale: 1:1	☐ Hide paperspace objects ✓ Plot stamp on ☐ Save changes to layout
Plot offset (orig X: 0.00000 Y: 0.00000	gin set to printable area) 1 inch Center the plot 0 inch	1 inches ■ 1 unit ✓ Scale lineweights	Drawing orientation O Portrait O Landscape Plot upside_down
Preview		Apply to Layou <u>t</u> OK	Cancel <u>H</u> elp 🔇
3. Select	t the "plot stamp settings" id	Figure 1	



4. In the Plot Stamp window, uncheck "Device name" and add checkmark to "Drawing name" and "Date and Time" box. Make sure these two options are the only ones selected. Ensure that the Plot Stamp window matches **Figure 2**. Click on the "Advanced" tab.

Plot Stamp			? 🗙
Plot stamp fields		Preview	
Drawing name	Device name		
Layout name	Paper size		
Date and Time	Plot scale		
Login name			
User defined fields			
<none></none>	~	<none></none>	~
			Add / Edit
Plot stamp parameter fi	le		
C:\Documents and Se	ttings\Administrator\Applica	ation Data \A. Load	Save As
Advanced	(OK Cancel	Help

Figure 2



5. In the Advanced Options window, change X offset to "1.1500", Font to "Arial", Orientation to "vertical". Make sure Height reads "0.1250." Add checkmark to "Single line plot stamp." Ensure that the Advanced Options window matches Figure 3. Select the "OK" tab. Then, Select the "OK" tab on the Plot Stamp window and the main Plot window.

Advanced Options			? 🔀
- Location and offset	Orientetion		Text properties
Bottom left	Vertical	~	Arial
Stamp upside-down			Height:
X offset	Y offset:		0.1250
1.1500	0.1000		Single line plot stamp
 Offset relative to printal 	ole area		Plot stamp units Units:
Offset relative to paper	border		Inches 🗸
Log file location			
Create a log file C	:\spool\plot.log		Browse
		01	Cancel Help

Figure 3

6. The Plot Stamp has now been setup.



6. LEVEL/LAYER ASSIGNMENTS

INTRODUCTION

This chapter explains the use of levels/layers for model and sheet files as well as the conventions used to name the levels/ layers.

LEVELS DEFINED

Regardless of the CADD software utilized to complete the design, the level/layer naming convention will follow the National Cad Standards, see NCS CLG-5. The information represented by individual levels is grouped into two primary types, model-specific information and sheet-specific information. The importance of a solid level/layer structure within a CADD file cannot be stressed enough. There are many reasons this is needed; first it allows the end user the flexibility to make changes efficiently and consistently, second it allows end users the ability to quickly determine what each element represents based on the level/layer it is placed.

• MODEL SPECIFIC INFORMATION:

It includes site, roads, building or other objects depicting existing and/or proposed conditions. This information is often shared among drawings. Examples include utilities, roads, runways, walls, doors, light fixtures, room numbers, etc.

• SHEET SPECIFIC INFORMATION:

May include, but is not limited to notes, annotations, annotative symbols and titles. This type of information is generally not shared between drawings.

LEVEL/LAYER NAMING CONVENTION

All level/layer names must conform to NCS. Levels/Layers have been pre-established utilizing a specific dgn.lib file based on individual disciplines for Microstation and a specific template file based on individual disciplines for AutoCAD. These files aid the user in establishing a consistent level/layer structure as well as the symbology for each. These files will be provided and maintained by DFW Airport. Any and all modifications will conform to NCS and must be approved by DFW Airport prior to their use.

Example level/layer name: AD-WALL-FULL-TEXT-1

Whereas:

- AD- Indicates the Discipline Code spaces 1-3 (includes the hyphen) (see note 1 below)
- WALL- Indicates the Major Group Code spaces 4-8 (includes the hyphen) (see note 5 below)
- FULL- Indicates the First Minor Group Code spaces 9-13 (includes the hyphen) (see note 6 below)
- **TEXT-** Indicates the Second Minor Group Code spaces 14-18 (includes the hyphen) (see note 6 below)
- 1 Indicates the Phase of Construction space 19 (leave out if not required)

Notes:

- 1. The order of these fields must be maintained and cannot be changed.
- 2. The Discipline Code will utilize the Level 2 Codes set by NCS for all level/layer names.
- 3. The Discipline Code and Major Group Codes are mandatory. The First and Second Minor Group Codes are optional but should be used as much as possible. In the absence of one or both, underscores (_) must be used in place of the text in order to keep all level/layer names a consistent length.
- 4. For Level 2 Discipline Codes see NCS CLG-90.
- 5. For Major Group Codes see NCS CLG-94.
- 6. For Minor Group Codes see NCS CLG-98.
- 7. All characters within the level/layer names will be CAPITALIZED.



7. 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 DFW 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 DFW 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 pg UDS-06.13. Example is shown below:



Note the Bar Scales, North Arrows and Detail Titles are included in the following files: for AutoCAD **10TRIPGRDG01-P0X.DWG**, for Microstation **TRIPCELLS.CEL**



GRAPHIC ATTRIBUTES

In general, the graphic attributes, weights, styles and colors are defined by level within each individual discipline's dgnlib files for Microstation or template files for AutoCAD. In the event that attributes are 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 both Microstation and 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.

Notes:

1. Thicknesses shown in inches were converted from the thickness in mm as shown in NCS UDS-01.14 and rounded up to the 4th decimal place.



Line Styles:

Line styles shown below represent only the basic styles available in both Microstation and 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.

MICROSTATION	AUTOCAD	DESCRIPTION	USAGE
LINE CODE	LINETYPES		00/ (02
			Object lines, dimension lines,
			leader lines, extension lines,
0	CONTINUOUS	Continuous/Solid	break lines
	DOT,		
	DOT2,		Connection points,
1	DOTX2	Dotted	other uses vary
2	HIDDEN2	Medium Dash	Secondary object hidden lines
			Main object, hidden lines,
3	HIDDENX2	Long Dash	existing elements
	DASHDOT, DASHDOT2,		
4	DASHDOTX2	Dot Dash or Dash Dot	Matchlines, other uses vary
5	HIDDEN	Short Dash	Detail hidden lines
	PHANTOM, PHANTOM2,		Property lines, boundary limit
6	PHANTOMX2	Dash Dot or Phantom	lines, phantom lines
	CENTER, CENTER2,	Long Dash Short Dash	
7	CENTERX2	Long Dash	Centerlines
Custom	DASHED DASHED2	Long Dash	Varies
	DIVDE		
Custom	DIVDED 2	Dash Dot Dot Dash	Varies
	GAS_LINE		
Custom	GAS	Dash Gas Dash	Gas Lines
Custom	TRACKS	Tracks	Rail Lines
Custom	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 Cad 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 Cad Standards. Colors have been assigned by level/layer within the Microstation DGNLIB files/AutoCAD Template files and should not be changed by the user. The following color tables have been established for use on the TRIP project and will be provided by DFW International Airport:

- For Microstation, use **TRIPMCOLOR.TBL**
- For AutoCAD, use TRIPACOLOR.CTB

AUTOCAD - LTSCALE

When in **PAPERSPACE** the **LTSCALE** should be one and the **PSLTSCALE** should be one.



TEXT ATTRIBUTES

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 for Microstation or AutoCAD by DFW Airport.

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.

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

TEXT SIZES FOR CIVIL DRAWINGS

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

TEXT SIZES FOR ARCHITECTURAL & STRUCTURAL DRAWINGS

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

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



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.

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.

Terminators:

The approved line terminator for use in all circumstances other than Architectural dimensioning

is the standard filled terminator.

- The size of the filled terminators is a width of .5 and a length of 1.5 x the text height.
- The approved line terminator for use on Architectural dimensioning is the
- standard stroke terminator.
- 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).







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. In general, these settings have been pre-established in the DFW TRIP Seed Files.

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.



QUADRANTS & GRID

Quadrants:

The Quadrants Key Plan map is to be used for the Concept package only. All work after that shall follow the DFW Airport Grid shown below.



Radial Grid & Key Plan:

The KEY PLAN map shown on page 85 is to be used for all work beyond the Concept package to include the Design Development package as well as the Pricing package. This Key Plan is included in the appropriate border files and should be used to indicate the area encompassed by each sheet. User is instructed to shade the applicable area by copying the required elements into the sheet and creating a black filled shape to indicate the area of concern for each sheet. Each sector represents a sheet created at 1/16'' = 1'-0'' scale. For other scales, adjust the shape accordingly. See pages 85 - 90 for grid illustrations.



OVERALL KEYPLAN





TERMINAL A KEYPLAN





TERMINAL B KEYPLAN





TERMINAL C KEYPLAN





TERMINAL E KEYPLAN





CONNECTORS KEYPLAN





8. DELIVERABLE REQUIREMENTS

INTRODUCTION

This chapter identifies the requirements for all submittals to DFW International Airport. It includes details regarding electronic file submittals, what files are required for submittals, as well as the methods and media to be used in the submittal process. The intent of this electronic file submittal is to provide DFW International Airport all CADD files utilized in the development of a construction document package so that a complete archive of the entire project can be made for record and retention requirements as well as for future use and to aid DFW International Airport in updating the base map information required for inclusion into the DFW International Airport GIS.

TIMING AND FREQUENCY

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

CONTENTS

The consultant will include the following electronic files for each submittal:

- **Project Information File** Defined at the end of this chapter.
- Sheet Files (Master Files) All sheet files used to produce the project drawing set.
- Model Files (Reference Files) All design files that represent the design required to produce the project drawing set.
- Master Map Files (Base Files) All design files representing any changes to the DFW 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 in Chapter 27.
- **Resource Files** All resource and configuration files (i.e., pen tables, seed files) necessary for the use and production of the project design files.
- Specifications Files All Project specifications.
- Miscellaneous Files Any Miscellaneous files associated with the project.

FORMAT

All files included in any submittal must meet the software and file format requirements detailed in Chapter 2 under SOFTWARE REQUIREMENTS and must be delivered in the directory structure as shown in Chapter 3 under PROJECT DIRECTORY STRUCTURE. Any other format or directory structure will result in the rejection of the submittal and require the Consultant to resubmit at their expense. All AutoCAD files are to be saved down to a Native 2007 format in order to allow them to be opened by Microstation XM. Note that DXF file formats for any CADD files will not be accepted.



MEDIA

All electronic submittals & file transfers are to be written to a Recordable Compact Disc compatible with a standard FAT or NTFS file system. Files are to be placed on the CD uncompressed in the file format specified in these standards. The CD shall be delivered in a standard jewel case to DFW International Airport. The CD and the CD case shall be appropriately labeled.

Before a file is recorded onto the delivery media, the following procedures should be performed:

- Remove all extraneous graphics outside the border area, and set the active parameters to a standard setting or to those settings in the seed file.
- Make sure all reference files are attached without device or directory specifications.
- Include all files, both graphic and non-graphic, required for the project (color tables, pen tables, Microstation Resource files or AutoCAD Custom Support files, plot files, etc.).
- Include any standard sheets (abbreviation sheets, standard symbol sheets, etc.) necessary to reproduce a complete project.

PROJECT INFORMATION FILE

The Project Information File is a read only text file viewable in notepad and shall be included in the Project Root Directory, TERMINAL RENEWAL AND IMPROVEMENT PROGRAM.

The contents of this file shall contain the following information:

- PROJECT TITLE: Provided by the Consultant
- PROJECT DESCRIPTION: Provided by the Consultant
- DESIGN CONSULTANT: Provided by the Consultant
- CONTACT INFORMATION: Provided by the Consultant
- DESIGN CONTRACT NUMBER: Provided by the Consultant
- AIRPORT RESPONSIBLE DEPARTMENT: For DFW use
- AIRPORT PROJECT MANAGER: For DFW use
- AIRPORT CONSTRUCTION MANAGER: For DFW use
- ISSUE FOR BID DATE: For DFW use
- ISSUE FOR CONSTRUCTION DATE: For DFW use
- GENERAL CONTRACTOR: For DFW use
- CONTACT INFORMATION: For DFW use
- CONSTRUCTION CONTRACT NUMBER: For DFW use
- NOTICE TO PROCEED DATE: For DFW use
- PROJECT COMPLETION DATE: For DFW use
- RECORD DRAWINGS SUBMITTED: For DFW use
- ARCHIVE STATUS: For DFW use

In order to facilitate the use of multiple Project Information files by DFW International Airport, The following naming convention will be utilized.

EXAMPLE: 10TRIPA-IF____C.TXT

Whereas:

- 10 Indicates the Year spaces 1-2 (year at beginning of the contract)
- **TRIP** Indicates the Project Code spaces 3-6 (See Note 1 below)
- A- Indicates the Discipline Code spaces 7-8 (includes the hyphen) (See Note 2 below) (Level 1 Discipline Designator shown, Level 2 Discipline Designator optional)
- **IF** Indicates this is an Information File spaces 9-10
- 4 individual underscores to allow for additional description by DFW spaces 11-14
- C Indicates the Terminal Code space 15 (See Note 3 below)
- Period used to separate filename from extension space 16
- **TXT** Indicates the File Type Extension (Text File) spaces 17-19

Notes:

- 1. The prefix "10TRIP" is for project identification and is not optional. It must precede the filename established utilizing NCS UDS-01.18.
- 2. For Discipline Codes see NCS UDS-01.11.
- 3. Terminal Codes are as follows: X=Common Reference Files (Border Files, etc.) A=Terminal A, B=Terminal B, C=Terminal C, E=Terminal E, L=Baggage Link, R=Roadway (not tied to a terminal), T=Intermodal Transfer Center, F=Airfield.

A Project Information Seed file entitled **PRJINFO.TXT** will be provided by DFW. Consultant is directed to save a copy and name the copy according to instruction provided above. Consultant is to provide the information required and submit this file along with the Consultant's final submittal.