THE PORT AUTHORITY OF NY & NJ
Engineering Department

E/A Design Division CAD Standard

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TABLE OF CONTENTS

1.0 E/A DESIGN DIVISION CAD STANDARD

1.1 FOREWORD

The EAD CAD Standard outlined within this document was established to provide guidance for the preparation of the Engineering / Architecture (E/A) Design Division of the Port Authority of New York and New Jersey's (PANYNJ) contract documents.

This document is intended for use by both in-house personnel as well as outside consultants involved in creating or updating PANYNJ facilities' Computer Aided Drafting (CAD) data.

1.2 PURPOSE

This Standard establishes requirements and procedures for the preparation and submission of CAD based drawings throughout the project life cycle. Adherence to this standard insures that the E/A Design Division of the PANYNJ will receive and produce data in a consistent format. This consistency will improve the compatibility of this data within each discipline and the efficient exchange of data between disciplines.

The role of an individual assigned to the project determines the level of understanding required of the EAD CAD Standard. For CAD operators, designers, and functional supervisors a thorough knowledge of all CAD related elements associated with a project is crucial. The project manager however only requires a general knowledge of the EAD CAD Standard and the means by which it is employed to create a project. Both levels of knowledge will be possible through the use of this manual.

The CAD system adopted by the PANYNJ is comprised of several Autodesk products. Throughout this manual terminology and references will be made that are unique to Autodesk and primarily, different AutoCAD based software applications.

Supported Design Software Products
AutoCAD 2018
AutoCAD Civil 3D 2018
AutoCAD Map 3D 2018
AutoCAD Raster Design 2018

1.2.1 ABOUT THIS STANDARD

The chapters within this standard describe how the E/A Design Division uses AutoCAD and how to configure AutoCAD to support the E/A Design Division CAD Standard, which it has adopted.

The appendices, which follow, support the chapters in several ways. Each discipline has been assigned an appendix to explain information specific to their functional group. In addition, appendices have been provided to support CAD related subject matter, which is common throughout all disciplines. Finally, some appendices have been created to support internal E/A Design Division staff only; these appendices will be for internal use; however, they have been supplied with the document for both in-house and consultant staff.

1.3 ACRONYMS AND ABBREVIATIONS

The following are Acronyms and Abbreviations used throughout this document.

Acronym	Definition
APJ	Autodesk Project File
C3D	Autodesk AutoCAD Civil 3D
CP	Confidential Privileged
CTB	Color Dependent Plot Style Table
DSS	Vault Sheet Set Data File
DST	Sheet Set Data File
DWG	AutoCAD drawing file
DWT	AutoCAD template file
EAD	Engineering Architecture Design
EOL	Engineering on Line
FAC	Facility Code
K:\	Internally Mapped Network Drive pointing to \\Patcav56\K_Drive
M:\	Internally Mapped Network Drive pointing to \\Patccsrv2\Cad\Cad
MEP	Autodesk AutoCAD MEP
N:\	Internally Mapped Network Drive pointing to \\Patccsrv1\Cad\Archive
PANYNJ	Port Authority of New York and New Jersey
PC3	Plotter Configuration file
PDF	Portable Document Format file
PID	Project Identification Number
PMP	Plotter Model Parameter file
RVT	Autodesk Revit

1.4 DELIVERABLES

The EAD CAD Standard adopts AutoCAD as the “Standard CAD Software”. Consultants are required to submit electronic CAD files in a format compatible with the current version of AutoCAD software in use by the E/A Design Division of the PANYNJ.

In addition, all submitted files must conform and comply with the latest version of the EAD CAD Standard outlined in this document.

Softcopy submittals (electronic CAD files) must include all information presented on the hardcopy submittals (plots). This precludes the use of sticky-backs, graphic tapes, hand lettering and anything else that is placed on the drawing after it is plotted excepting any signatures and seals.

Consultants are required to submit CAD files accompanied with hardcopies every time a project reaches a submittal milestone. This includes, but is not limited to, PA Review Set, Law Review Set, Percent Submittal Set, Addendum Set, As Bid Set, PACC Set, Drawing of Record Set, etc. Refer to **Section 1.8.10 Submissions.**

All electronic CAD files should be AutoCAD DWG files with binary compatibility with the current release of AutoCAD in use by the PANYNJ. When submitting files on electronic media, the AutoCAD drawing file version should be noted.

If terrain model files are requested for the project, the consultant will submit these files in XML format.

If alignment files are requested for the project, the consultant will submit alignment files in XML format.

If a coordinate geometry point database is requested for a project, the consultant will supply this database as an XML file.

When requested, these files will be submitted with the project structure intact, as outlined in **Section 1.5.2 AutoCAD Civil 3D**.

1.4.1 SCHEDULE

DWG and PDF files are required for each milestone during both Stage II and Stage III. If the project does not have a milestone scheduled prior to the PA Wide Review submission, DWG and PDF files will be submitted no later than 3 weeks prior to the PA Wide Review submission.

1.4.2 MEDIA AND FORMAT

AutoCAD drawing files will be submitted on media CDs. All disks are to be delivered virus free.

Final hardcopies of each sheet must use the PANYNJ Contract Border identified in this standard and must be submitted at full size, either 22x34 or 34x56. Submitted hardcopies must use archival paper with Permalife® plotter paper specifications. Engineering Department staff will verify that submissions contain the “Permalife 25% cotton content” watermark. Authorized professional signatures must use blue ink.

1.4.3 IDENTIFICATION

All CDs submitted to the E/A Design Division of the PANYNJ will be labeled with the following information:

- Consultant’s name and Project Identification Number (PID)
- Contact name and phone number of consulting project manager
- Discipline-Facility (e.g. Civil-JFK)
- Submittal Date and Percent Completed
- Data Format (e.g. AutoCAD Version .dwg)
- File Name(s) on CD
- As much information as possible should be printed on both the CD label and the CD case. If all the information will not fit on either the CD label or the CD case, the information can be listed in an orderly manner in a text file that will be copied to the CD in electronic format.

1.4.4 PROJECT WEBSITES

The PANYNJ developed a “Project Extranet” to enhance collaboration between in-house designers and outside consultants, as well as with different departments and divisions throughout the agency. All Project Websites have a folder structure similar to that described in **1.6 Project Directory Structure and File Naming Convention** of this standard.

Please refer to the project specifics to determine if a Project Website is available for use. If so, all transfer of digital information should be made via the website. Transfer of data via email or CDs is not permitted if a project website is available.

If a Project Website is available for the project the Project Website link will be provided along with a Username and a Password.

1.5 ACCESSING THE E/A DESIGN DIVISION CAD STANDARD

The E/A Design Division CAD Standard includes a series of support files. All support files are provided in a folder named "CAD_Standards\2018", which is located on K:\Application\EAD\CAD_Standards\2018 folder of the PANYNJ network. The "CAD_Standards\2018" folder contains one general "**All_Disciplines**" sub-folder and eight discipline specific sub-folders as illustrated in **Figure 1.5–1**.

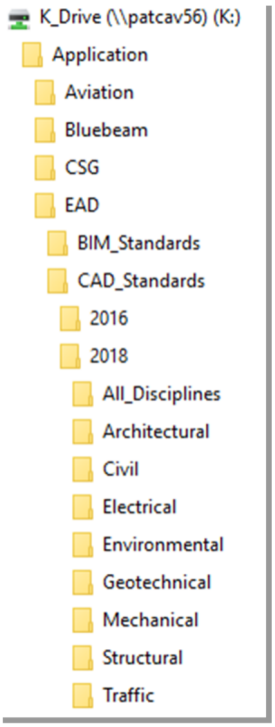

Figure 1.5-1

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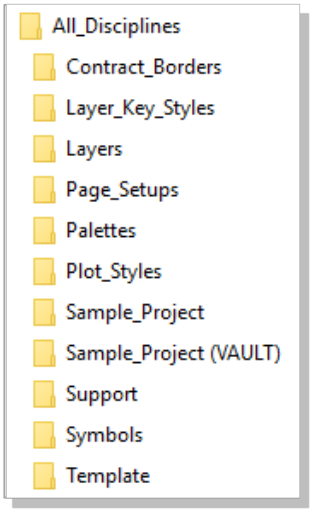


Figure 1.5-2

The "All_Disciplines" sub-folder contains all cross-discipline support files, including contract borders, Layer Key Styles, Layers, Page Setups, Sample Project structure, Support files, Symbols and Templates. Both folder structures for PA employees and contractors are illustrated in Figure 1.5-2.

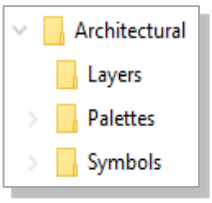


Figure 1.5-3

Each Discipline sub-folder is divided into three sub-folders which contain all the discipline specific support files including layer drawings, tool palettes, plotter files and tool palettes. An example of this folder structure is illustrated in Figure 1.5-3.

The layer and symbol content within these folders can be accessed through the use of AutoCAD's Design Center utility. Graphic depictions of the symbols for each discipline can be referenced in the appendices.

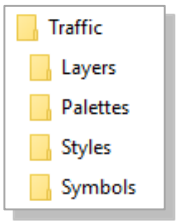


Figure 1.5-4

Disciplines using 3D software have a slightly different folder structure than the format mentioned. The Traffic and Geotechnical sub-folders contain one additional folder – styles. Figure 1.5-4 displays the folder structure that is shared by Traffic and Geotechnical.

The Civil discipline contains folders for civil3d-subsassembly, pipes catalogue, prototypes and styles in addition to the sub-folders mentioned before. Figure 1.5-5 demonstrates the folder structure for the civil discipline.

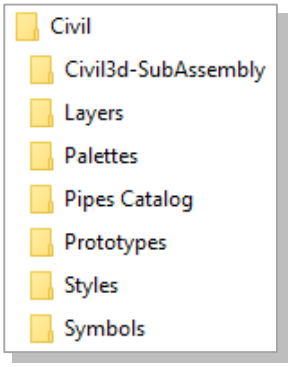


Figure 1.5-5

1.5.1 USING THE STANDARD FILES

The CAD_Standards directory contains two primary types of files: files that do not require ongoing user interaction and files that do.

The first type refers to support files accessed automatically by AutoCAD once they have been copied to the proper support folders. All E/A Design Division workstations have already been configured to access these files. Outside consultants should copy these files to the appropriate directories or create an AutoCAD profile pointing to the files as necessary.

The second type refers to files such as title sheets, contract borders, drawing information blocks and stamps, which the user must configure within the project. For instructions on creating a title sheet or working with the contract borders, refer to **1.9.3.2 Plan Set Preparation**.

1.5.2 AUTOCAD CIVIL 3D

When using C3D, project drawings and data should be stored in the MODEL folder of the appropriate discipline. Projects using Vault have a different location than the projects completed without the use of Vault.

Non-VAULT: M:\<Facility Name>\<PID Number>\<Discipline>\Model\

VAULT: $\<Facility Name>\<PID Number>\Civil 3D Data

For a more in depth breakdown on how to use C3D within the PANYNJ reference the Civil 3D Standard which is included within **1.17.5 Civil 3D**.

1.5.3 AUTODESK REVIT

The Port Authority of New York and New Jersey is making use of BIM (Building Information Model) technology.

Refer to the E/A Design Division BIM Standard for a description of the processes, procedures, and requirements that are to be followed for the preparation and submission of BIM Models and documents for E/A Design Division projects.

1.6 PROJECT DIRECTORY STRUCTURE AND FILE NAMING CONVENTION

The E/A Design Division CAD Standard provides a structure for the organization of CAD projects within the department.

The primary goals of this structure are to improve coordination between functional groups of E/A Design Division and its consultants, as well as to develop CAD projects in a way that will facilitate the further use of the electronic information beyond the initial contract.

1.6.1 PROJECT DIRECTORY STRUCTURE

For EAD CAD projects which are stored on the CAD volume, there is an internal mapping to the drive letter "M:\". The "M:\" drive contains a sub-directory for each facility named using its facility code as displayed in Error! Reference source not found.. For more information regarding EAD CAD Vault projects refer to section **1.7 Project Directory Structure and File Naming Convention (Vault Projects)**

Table 1.6-A

Facility Code	Facility Name
AMT	Automobile Marine Terminal
BB	Bayonne Bridge
BRKMT	Brooklyn Port Authority Marine Terminal
EP	Elizabeth Port Authority Marine Terminal
EWR	Newark Liberty International Airport
FERRY	Ferry Transportation
GB	Goethals Bridge
GWB	George Washington Bridge and Bus Terminal
HCMF	Harrison Car Maintenance Facility
HELI	Downtown Manhattan Heliport
HH	Howland Hook Marine Terminal
HT	Holland Tunnel
IPY	Industrial Park at Yonkers
JFK	John F. Kennedy International Airport
JSTC	Journal Square Transportation Center
LGA	LaGuardia Airport
LT	Lincoln Tunnel
MULTI	Multi Facility Projects
NFC	Newport Financial Center
NJMT	New Jersey Marine Terminals
NLCC	Newark Legal and Communication Center
OBX	Outerbridge Crossing
PABT	Port Authority Bus Terminal
PACD	Port Authority Police Academy
PATC	Port Authority Technical Center
PATH	Port Authority Trans-Hudson Corporation
PHQ	Police Headquarters
PJ	Port Jersey
PN	Port Newark
PRTC	Police Rescue Training Center
RLLC	Cross Harbor Rail Road NY/NJ
SWF	Stewart International Airport
TEB	Teterboro Airport
TLPT	Staten Island Teleport
WTC	World Trade Center

1.6.2 PROJECT IDENTIFICATION NUMBER

The Project Identification Number (PID) is a unique Identification assigned for all EAD projects.

The LE/A is responsible for getting the PID number from the Project Manager at the kick-off meeting and distributing it to all discipline task leaders involved in the project. The task leader is responsible for distributing the PID number to their outside consultants. The LE/A will request the creation of the project folder structure through the use of the on-line form provided on EOL under the "Engineering Tools / CAD Support and Training" section or by selecting the following link Project Folder Creation Request Form. Refer to **1.27.7 Request Project Folder Structure**.

The "M:\" drive is divided into Facility Folders, each containing project specific sub-folders. These project folders are named using the eight (8)-digit PID number. **Figure 1.6-1** illustrates this concept using a project at Goethals Bridge with a PID number of 01234567.

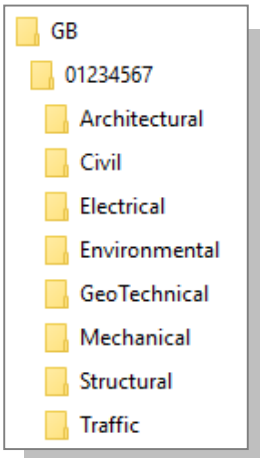


Figure 1.6-1

1.6.3 DISCIPLINE FOLDERS

Every discipline is provided with a folder in the project directory in which all design related data is to be stored. Each discipline folder has a series of standardized sub-folders which are to contain the various types of design data.

Figure 1.6-2 illustrates these standardized sub-folders using the Architectural folder as an example.

The Model, Plotsheet and Publish folders should always contain the current version of all CAD drawings related to the project.

For more information on the usage of these folders refer to the section titled Discipline Folder Rules of this standard.

For more information on the Plotsheets_CP and PDF_CP folders refer to **1.11.1 Confidential Projects** of this standard.

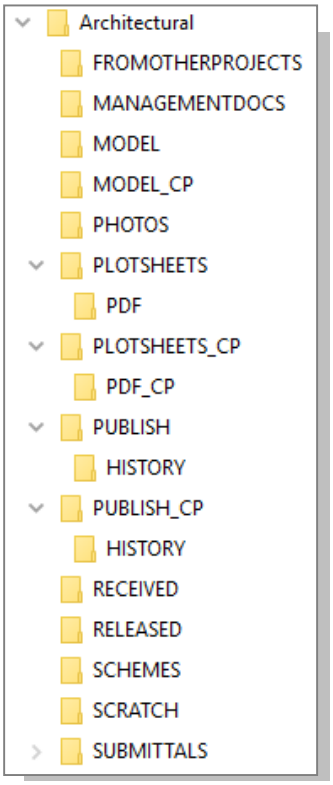


Figure 1.6-2

1.6.3.1 RULES OF THE DISCIPLINE FOLDER

The Discipline folders are used to share files among all the different disciplines of the Engineering / Architectural Design Division.

- Sub-folders are not to be created within the discipline folder.
- The Discipline sub-folders have read-write permissions assigned to the owning discipline.

1.6.3.2 RULES OF THE FROMOTHERPROJECTS FOLDER

The FromOtherProjects folder will contain drawings and data that have been taken from other projects that relate to the current project. If a file from another project is required for reference purposes only and is not going to be included as part of the contract set it will be stored in this directory. If a file is required to be part of the contract set, then it will be copied to the Model folder and must comply with the current EAD

CAD Standard. Related contracts and reference documents are shared in Livelink with the consultants in Stage I through Stage III. The documents are provided the Contractors in Stage IV.

- Sub-folders are permitted within the FromOtherProjects folder (Refer to **1.6.7 Folder Naming Convention** for proper usage).
- The FromOtherProjects folder has read-write permissions assigned to the owning discipline.
- Other disciplines have no access to the FromOtherProjects folder.
- The FromOtherProjects folder will not be archived with the project.

1.6.3.3 RULES OF THE MANAGEMENTDOCS FOLDER

The ManagementDocs folder will contain all non-drawing or photo related project data. Spreadsheets, documents, specifications, memos, estimates, etc. will be stored in this folder.

- Sub-folders are permitted within the ManagementDocs folder (Refer to **1.6.7 Folder Naming Convention** for proper usage).
- The ManagementDocs folder has read-write permissions assigned to the owning discipline.
- Other disciplines have no access to the ManagementDocs folder.
- The ManagementDocs folder will be archived with the project.

1.6.3.4 RULES OF THE MODEL FOLDER

All design work and annotation must be stored inside AutoCAD drawings saved within the Model folder. The EAD CAD Standard refers to these design drawings as Model files.

Images and Office documents referenced or linked by drawing files will also be stored in the Model folder and must comply with the rules for Model files. References to OLE objects are not permitted.

- Sub-folders are not to be created within the model folder, with the exception of the folders created when ACA, C3D, or MEP projects are used.
- The Model folder has read-write permissions assigned to the owning discipline.
- Other disciplines have read permissions assigned to the Model folder.
- The Model folder will be archived with the project.

1.6.3.5 RULES OF THE PHOTOS FOLDER

The Photos folder will contain all digital photographs relevant to the project, with the exception of those used on contract drawings. Drawings are not permitted to reference photographs from this folder. In order to reference a photograph within a drawing file, copy the image into the Model folder and refer to **1.6.3.4 Rules of the Model Folder** for proper usage.

- Sub-folders are permitted within the Photos folder (Refer to 1.6.7 Folder Naming Convention for proper usage).
- There are no file naming requirements for images stored within the Photos folder.
- The Photos folder has read-write permissions assigned to the owning discipline.
- Other disciplines have read permissions assigned to the Photos folder.
- The Photos folder will be archived with the project.

1.6.3.6 RULES OF THE PLOTSHEETS FOLDER

All layouts for plotted sheets will be saved inside AutoCAD drawings stored within the Plotsheets folder. The EAD CAD Standard refers to these layout drawings as Plotsheet Files. These files are assembled sheets used for plotting. These drawings consist of a series of external references.

- Sub-folders are not permitted within the Plotsheets folder
- Only Plotsheet files will be stored within the Plotsheets folder.
- The Plotsheets folder has read-write permissions assigned to the owning discipline.
- Other disciplines have read permissions assigned to the Plotsheets folder.
- The Plotsheets folder will be archived with the project.

No line work or annotation is allowed in either Model Space or Paper Space of the Plotsheet files with the following exceptions:

- Blocks provided within this standard whose name begins with “Drawing_Info”
- Match lines and associated Match line annotations.
- Revision clouds and associated Revision cloud annotations.
- Scale Bars
- North Arrows
- View Titles

All paper drawings in the Contract Set will have a corresponding Plotsheet file in the Plotsheets folder, the only exception is the Title Sheet. Multiple contract sheets **MAY NO LONGER** be saved in a single Plotsheet file, there may only a single layout containing a Contract Border per file.

This change is enacted to provide cross-compatibility with the Port Authority Autodesk Vault environment.

1.6.3.7 RULES OF THE PDF FOLDER

A Portable Document Format file (PDF) is an industry standard non-editable file format. PDF files will be created at full-size, directly from the AutoCAD drawing files and stored in the PDF folder. The use of PDF's officially replaces the use of DWF files within EA/D (c.10/2018). It is no longer necessary to produce DWF files, and the submission of DWF’s will not satisfy these revised requirements to properly create PDF files at each milestone submission.

The PDF folder will always contain the most recent milestone version of the PDF file(s). Earlier milestone files once copied to the SUBMITTALS folder for the milestone will be either deleted from the PDF folder or overwritten in place.

- Sub-folders are not permitted within the PDF folder.
- The PDF folder has read-write permissions assigned to the owning discipline.
- Other disciplines have read permissions assigned to the PDF folder.
- The PDF folder will be archived with the project.

1.6.3.8 RULES OF THE PUBLISH FOLDER

The Publish folder will be used as a sharing mechanism between disciplines. A discipline may copy Model files into its own Publish folder, making them available for other disciplines to reference. Other disciplines are not permitted to copy these files but will instead externally reference them directly from the owner’s Publish folder. The lead discipline’s Publish folder will contain the Contract Border.

There will be only one Contract Border per project. **The only exception to this rule is when new drawings are added to the Contract Set as part of a Stage IV – PACC**. Refer to **1.8.10.7 StageIV_PACC** for instructions.

It is important that this methodology for referencing design files from other disciplines be followed. If a user copies design files from another discipline's Model, Plotsheets or Publish folder then they must take ownership of the file. By taking ownership the discipline copying the file will then be responsible for all EAD CAD Standards compliance of that file (ex. file (re-)name, layers used etc..) as if it were created by that discipline.

- The History folder is the only sub-folder permitted within the Publish folder.
- Only copies of Model files shall be stored in the Publish folder, with the exception of the Contract Border.
- A discipline will not reference a file from within its own Publish folder, with the exception of the Contract Border for the Lead Discipline.
- The Publish folder has read-write permissions assigned to the owning discipline.
- Other disciplines have read permissions assigned to the Publish folder.
- The Publish folder will be archived with the project.

1.6.3.9 RULES OF THE HISTORY FOLDER

If a single file is to be published more than once, the file that exists in the Publish folder will be moved to a dated sub-folder within the History folder. The updated version of the file will then be copied into the root of the Publish folder. This will allow other disciplines to continue to reference older or time-phased versions of reference drawings if required by their design schedule by changing the external reference path to the dated sub-folder within the History folder.

- Sub-folders are permitted within the History folder (Refer to **1.6.7 Folder Naming Convention** for proper usage).
- Only copies of previously Published files will be copied to the History folder.
- The History folder has read-write permissions assigned to the owning discipline.
- Other disciplines have read permissions assigned to the History folder.
- The History folder will be archived with the project.

1.6.3.10 RULES OF THE _DATASHORTCUTS FOLDER

The _DataShortcuts folder is only populated in folder structure for disciplines that use AutoCAD Civil3D as an authoring application. This folder exists only under CIVIL and GEOTECHNICAL Publish folder.

- Sub-folders are permitted within the _DataShortcuts folder (Refer to **1.6.7 Folder Naming Convention** for proper usage).
- The _DataShortcuts folder has read-write permissions assigned to the owning discipline.
- Other disciplines have read permissions assigned to the _DataShortcuts folder.
- The _DataShortcuts folder will be archived with the project.

1.6.3.11 RULES OF THE RECEIVED FOLDER

The Received folder will contain a dated archive of design information received from outside sources. This folder is intended as a record to identify exactly what information consultants provided on what date.

- Sub-folders are permitted within the Received folder (Refer to **1.6.7 Folder Naming Convention** for proper usage).
- The Received folder has read-write permissions assigned to the owning discipline.
- Other disciplines have no access to the Received folder.
- The Received folder will not be archived with the project.

1.6.3.12 RULES OF THE RELEASED FOLDER

The Released folder will contain a dated archive of design information provided to outside sources. This folder is intended as a record to identify exactly what information consultants were provided with and on what date.

- Sub-folders are permitted within the Released folder (Refer to **1.6.7 Folder Naming Convention** for proper usage).
- The Released folder has read-write permissions assigned to the owning discipline.
- Other disciplines have no access to the Released folder.
- The Released folder will not be archived with the project.

1.6.3.13 RULES OF THE SCHEMES FOLDER

The Schemes folder will contain various schemes of a design as well as any temporary design data. This folder provides the designer with an area in which to make trial changes to a design and a place to store temporary files. If a scheme is created and is later chosen as the final design version, the files stored under that scheme are to be copied to the Model folder.

- Sub-folders are permitted within the Schemes folder (Refer to **1.6.7 Folder Naming Convention** for proper usage).
- The Received folder has read-write permissions assigned to the owning discipline.
- Other disciplines have no access to the Received folder.
- The Schemes folder will not be archived with the project.

1.6.3.14 RULES OF THE SHAREDDOCS FOLDER

The SharedDocs folder will be used as a sharing mechanism between disciplines. A discipline may copy ManagementDocs files into its own SharedDocs folder, making them available for other disciplines to reference. Files stored within the SharedDocs folder are not to be referenced into any contract drawings and are provided as references only.

- Sub-folders are permitted within the SharedDocs folder (Refer to 1.6.7 Folder Naming Convention for proper usage).
- Only copies of ManagementDocs files shall be stored in the SharedDocs folder, Model files are not permitted within the SharedDocs folder.
- Other Disciplines have read permissions assigned to the SharedDocs folder.
- The SharedDocs folder will not be archived with the project.

1.6.3.15 RULES OF THE SUBMITTALS FOLDER

The Submittals folder is a location for storing independent (duplicate) copies of project information as it appears at each milestone of the project. While the root Model, Plotsheets and Publish folders contain the current versions of drawings which will change throughout the life cycle of the project, the Submittals folder will preserve the state of those drawings at the moment of each milestone.

Sub-folders have been created for each submission milestone from Stage I through Stage IV, **Figure 1.6-3** displays the sub-folders that have been created.

- Sub-folders are permitted within the StageIII_PA-Review, StageIII_Addendum and StageIV_PACC folders, by replacing the "XX" with the proper submission number
- The Submittals folder has read-write permissions assigned to the owning discipline.
- Other disciplines have read permissions assigned to the Submittals folder.
- The Submittals folder will be archived with the project.

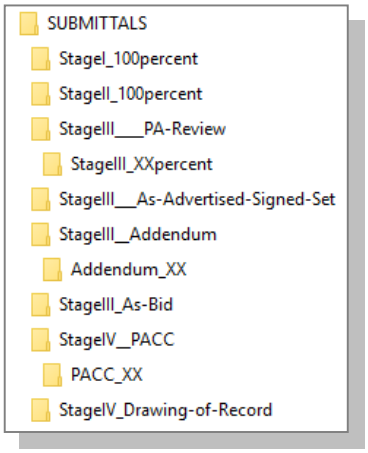


Figure 1.6-3

For more information regarding the specific submittal milestones, refer to **1.8.10 Submissions**

1.6.4 SAMPLE PROJECT

To simplify the exchange of information between the various PANYNJ departments, divisions and function groups as well as between consultants and contractors, every attempt will be made to adhere to both the drive mapping and directory structures defined within this section.

A sample project folder structure has been provided with the EAD CAD Standard as shown in **Figure 1.6-4**.

The project folder structure requires the replacement of "Facility Name" with the Facility Code provided in **1.6.1 Project Directory Structure** and the letters "PID" with the eight (8) digit Project Identification Number proved by the LEA.

A copy of the project folder structure can be found at:

K:\Application\EAD\CAD_Standards\2018\All_Disciplines\Sample_Project

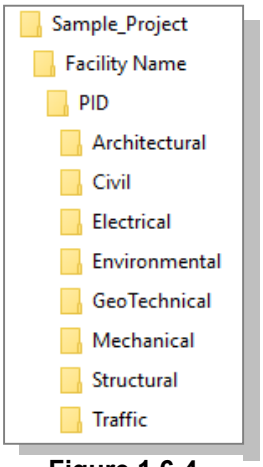


Figure 1.6-4

1.6.5 FILE NAMING CONVENTION

All electronic project files such as DWG, PDF, Images and Office documents referenced by a contract drawing, will be named following the EAD CAD Standard File Naming Convention.

1.6.5.1 DISCIPLINE CODES

There are eight (8) disciplines within the E/A Design Division of the PANYNJ. All files referenced by contract drawings will be named beginning with the appropriate Discipline Code. The only exception to this rule is the Contract Border file.

Table 1.6-A

Code	Discipline
A	Architectural
C	Civil
E	Electrical
N	Environmental
G	Geotechnical
M	Mechanical
S	Structural
T	Traffic

1.6.5.2 CONTRACT BORDER FILE

The Contract Border file contains general information about the project. This drawing will be named using the eight (8) digit PID number followed by a dash (-) and then the initials "CB". Since one Contract Border file is used by all disciplines of the project, no discipline code is used in its file name. The filename will also contain no spaces or description.

The filename will take the form of:

PID-CB.dwg

Acronym	Description
PID	Eight Digit Project Identification Number
CB	Contract Border

For example, the Architectural discipline is the Lead Discipline for a project with a PID number of 01234567. The Contract Border shall be named as follows:

01234567-CB.dwg

Consultants may create their own Contract Border file only if they are the Lead Discipline. Otherwise, they will request the Contract Border from their EAD Task Leader and will place it in the Lead Discipline's Publish folder.

If new drawings are added to the Contract Set during a Stage III – Addendum, the original Contract Border will be used and the new issue date will be included within the Revision Stamp.

If new drawings are added to the Contract Set during a Stage IV – PACC, a new Contract Border will be issued by the Lead Discipline. The new Contract Border will have a dash (-) followed by the date appended at the end of the file name in the form of -YYYY_MM_DD. The original Contract Border will remain un-changed and both files will co-exist within the Publish folder.

For example, the Traffic discipline is the Lead Discipline for a project with a PID number of 01234567 and new drawings are to be added to the Contract Set for a Stage IV – PACC occurring on November 21st, 2009. A new Contract Border will be issued and named as follows:

01234567-CB-2009_11_21.dwg

1.6.5.3 MODEL FILES

Model files are working drawing files containing the actual design geometry and annotations; they may also include externally referenced files from either the discipline's own Model folder or other disciplines' Publish folders.

Model files will be named beginning with the Discipline Code, followed by the eight-digit PID number, a Model File Plan Type, an optional Sequence modifier and an optional User Description. Refer to the list of approved Model File Plan Types listed in **Table 1.6-B**

Once defined a model file's name will not change through the life of the project. This restriction is required due to the nature of externally referencing Model files.

The filename will take the form of:

DPID-FP01-UserDescription.dwg

Acronym	Description
D	Discipline Code (Refer to Table 1.6-A in Section 1.6.5.1)
PID	Eight Digit Project Identification Number
FP	Model File Plan Type (Refer to **Table 1.6-B**)
01	Sequence Modifier (If used will be two digits)
User Description	A description of up to 24 characters, including spaces. The following characters are not permitted < > / \ " : ; ? * | , = ' & %

Table 1.6-B lists all allowable Model File Plan Types. For a listing of common Model File Plan Types for particular disciplines, refer to that specific discipline's appendix.

Table 1.6-B

Model File Plan Type	Description
3D	3D Isometric
AA	Asbestos Abatement
ALN	Alignment Plan
AN	Annotations
AP	Auxiliary Power Plan
ASL	Asbestos Sample Location
BSE	Background Drawing
CD	Communication System Plan
CFP	Concrete Framing Plan
COM	Communication Plan
CP	Control Plan
CPP	Corrosion Protection Plan
CS	Construction Staging
CSD	Control Schematic

Model File Plan Type	Description
D	Decking Plan
DAT	Microsoft Office Document
DTL	Detail
EL	Exterior Elevation
EM	EMCS Plan
EP	Enlarge Plan
EV	Environmental Plan
FA	Fire Alarm
FD	Foundation Plan
FNP	Furniture Plan
FP	Floor Plan
FPW	Floor Plan Wall
FR	Framing Plan
FS	Fire Suppression Plan

Model File Plan Type	Description
GP	Grounding Plan
GRD	Grading Plan
GT	Geotechnical Plan
HDP	HVAC Ductwork Plan
HP	Hydraulic Profile
ICM	ITS Communication Plan
IDX	Index of Drawings
IEL	Interior Elevation
IMG	Image
JL	Joist Girder Load Diagram
KP	Keyplan
LA	Lead Abatement
LIP	Lighting Plan
LP	Landscape Plan
LR	Lightning Protection Plan
LSL	Lead Paint Sample Location
MD	Machine Design Plan
MH	Material Handling Plan
MIS	Miscellaneous
MLS	Marking Lighting & Signage
MT	Maintenance of Traffic Plan
NOT	Notes and Specifications Plan
ONL	One Line Diagram
PAV	Paving Plan
PB	Presentation Border
PIP	Piping Plan
PJ	Project Location
PL	Part Plan
PLP	Plumbing Plan
PM	Pavement Marking Plan
PP	Power Plan
PPL	Pre-cast Panel Layout Plan
PPP	Pollution Prevention Plan
PRF	Profile
QP	Equipment Plan
RCP	Reflected Ceiling Plan
RE	Reinforcement Plan
RI	Riser Diagram
RL	Removal

Model File Plan Type	Description
RM	Remediation Plan
RP	Roof Plan
SCH	Schedule
SE	Soil Erosion Plan
SEC	Section
SF	Stair Framing Plan
SG	Signal Plan
SK	Sketch
SNP	Sign Plan
SO	Sequence of Operation Plan
SP	Site Plan
SPK	Sprinkler Plan
SPP	Specialty Piping Plan
ST	Steel Framing Plan
STG	Staging Plan
TB	Truss Bracing Plan
TOP	Topographic Plan
TRK	Track Plan
UTL	Utility Plan
WD	Wiring Diagram
WET	Wetland Plan
WG	Wind Girt Plan
WTP	Water Treatment Plan
WWT	Wastewater Treatment Plan
XB	X Bracing Plan

The Sequence Modifier is restricted to the following two options:

- Option 1 – Without using the Sequence Modifier

  For Example:

  M01234567-SPK-Level 2 North Wing.dwg

  M01234567-SPK-Level 2 South Wing.dwg

  M01234567-SPK-Level 4 North Wing.dwg

  M01234567-SPK-Level 4 South Wing.dwg

- Option 2 – Using the Sequence Modifier

  For Example:

  M01234567-SPK02-North Wing.dwg

  M01234567-SPK02-South Wing.dwg

  M01234567-SPK04-North Wing.dwg

  M01234567-SPK04-South Wing.dwg

Note that each discipline can choose which of the options they will follow for the project.

1.6.5.4 PLOTSHEET FILES

Plotsheet files are drawings assembled as sheets for plotting consisting of an externally referenced Contract Border, an inserted Drawing_Info block and externally referenced Model files from either the discipline's own Model folder or other disciplines' Publish folders.

Plotsheet files will be named beginning with the Discipline Code, followed by the eight digit PID number, followed by a dash (-), followed by the Series Modifier and then the Sheet Number. The Plotsheet file is not permitted to have a user description appended to its name.

The filename will take the form of:

DPID-PTXX01.dwg

Acronym	Description
D	Discipline Code (Refer to Table 1.6-A)
PID	Eight Digit Project Identification Number
PT	Plotsheet Plan Type (Refer to Table 6-D)
XX	Series Modifier (Refer to Chapter 1.6.8)
01	Sheet Number

1.6.5.4.1 Plotsheet Plan Type

Plotsheet Plan Types organize the contract drawings within the contract document set, they are the alphabetic character components of the sheet number depicted in the lower right-hand corner of the plotted sheet.

A listing of the Plotsheet Plan Types usable by specific discipline appears in **Table 1.6-C.**

Table 1.6-C

Useable By	Description	Plotsheet Plan Type
All Disciplines	General Plan	G
	Stage IV Sketch Sheets (For Stage IV use only)	SK
	Construction Staging or Sequence Plan	CS
Architectural	Architectural Plan	A
	Landscape Plan	LS
Civil	Civil Plan	C
	Marking Lighting & Signage	ML
Electrical	Electrical Plan	E
	Corrosion Protection Plan	CP
	Electronics Plan	ES
	Marking Lighting & Signage	ML
Environmental	Environmental Plan	N
Geotechnical	Geotechnical Plan	GT
Mechanical	Mechanical Plan	M
	Baggage Handling Plan	B
	Fire Protection Plan	FP
	Plumbing Plan	P
	Sprinkler Plan	SP
	Vertical Transportation Plan	VT
Structural	Structural Plan	S
Traffic	Traffic Plan	T
	Intelligent Transportation Systems	ITS
	Maintenance of Traffic	MT
	Signal Plan	SG

For Example:

M01234567-SP001.dwg

E01234567-ES001_ES004.dwg

1.6.5.5 PDF FILES

A Portable Document Format file (PDF) is an industry standard non-editable file format. PDF files will be created at full-size, directly from the AutoCAD drawing files.

The use of PDF's officially replaces the use of DWF files within EA/D (c.10/2018). It is no longer necessary to produce DWF files, and the submission of DWF's will not satisfy these revised requirements to properly create PDF files at each milestone submission.

PDF files will be named beginning with the Discipline Code, followed by the eight-digit PID number, followed by a dash (-) and then the Sheet Number Range. The PDF file is not permitted to have a user description appended to its name. Two forms of PDF files can exist, Single Sheet and Multi Sheet.

The PDF filename will take the form of:

DPID-PTXX01.pdf (Single Sheet)

DPID-PTXX01_PTXX20.pdf (Multi Sheet)

Acronym	Description
D	Discipline Code (Refer to Table 1.6-A)
PID	Eight Digit Project Identification Number
PT	Plotsheet Plan
XX	Series Modifier (Refer to Section **1.6.6 Drawing Number Conventions**)
01	Single Sheet Number
XX01_XX20	Starting Sheet Number to Ending Sheet Number

PDF files will be submitted as multi-sheet files at every submittal milestone of the project and will be created:

- From the current set of Plotsheet files
- Full Size (either 22x34 or 34x56)
- In black and white
- In consecutive order
- Grouped together by Plotsheet Plan Type

When using the Series, the PDF files will be named by grouping them together by Plotsheet Plan Type. DWF files are not permitted as substitutions for PDF files.

For Example:

T01234567-G001_G007.pdf

T0124567-T101_T307.pdf

An addition, a contract set PDF is required by the LE/A. Once the individual discipline's PDFs are submitted to the LE/A, a contract set of the drawings needs to be created and saved in the PDF folder. This should be assembled according to the Drawing Index and named by the eight-digit PID number.

For Example:

01234567.pdf

1.6.6 DRAWING NUMBER CONVENTIONS

The Port Authority CAD Standards supports three sheet numbering schemes, numbering by "One-Digit-Series", numbering by "Two-Digit-Series" or numbering by "Counter" alone. Each organize the Contract Drawings within the Contract Document set however, at the start of each project the LE/A will determine which numbering scheme will be used. This (and only this) scheme will be used by all disciplines for every contract drawing produced for the project.

Where a "Series" numbering system is chosen by the LE/A, each disciplines Task Leader will be responsible for the determination of what drawing types are assigned to each of the available counters in the series. This information will be distributed within the discipline by the Task Leader.

For Example:

The LE/A on a project is from Structural and decides that only "9 or less" series are needed. Structural would select option one. Electrical, however, decides that "10 or more" series will be needed. For Electrical to be permitted to use option two, they must make this request to the LE/A is from the Structural discipline. With the concurrence of the LE/A, all disciplines will be required to use the two-digit series option. These three formats **cannot** co-exist on the same project.

The Sheet Number will take the form of:

Option One		
Plotsheet Plan Type	Series Number (1 through 9)	Counter Number (01 through 99)
S	1	01

Option Two		
Plotsheet Plan Type	Series Number (1 through 09)	Counter Number (01 through 99)
S	01	01

Option Three	
Plotsheet Plan Type	Counter Number (001 through 099)
S	001

Option One (One digit series)

For projects with nine or less series the sheet number format will include a one or two letter Plotsheet Plan Type followed by a one-digit series number followed by a zero-padded, two-digit sheet "counter" number.

Use digits "1" through "9" as the series numbers

Series numbers can be skipped.

Counter numbers must be consecutive numbers beginning at "01" for each series.

Option Two (Two-digit series)

For projects with ten or more series the sheet number format will include a one or two letter Plotsheet Plan Type followed by a two digit series number followed by a two-digit sheet "counter" number.

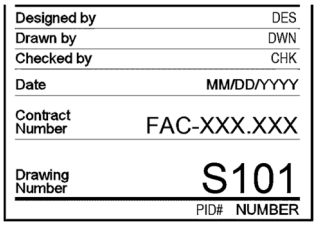
- Use digits "01" through "99" as the series numbers
- Series numbers can be skipped

- Counter numbers must be consecutive numbers beginning at "01" for each series.

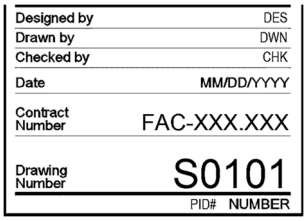
Option Three (Without Series)

For projects that are not using a series the sheet number format will include a one or two letter Plotsheet Plan Type followed by a zero-padded three-digit sheet "counter" number.

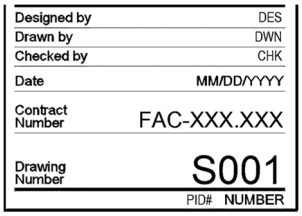
- ❑ Counter numbers must be consecutive numbers beginning at "001". The following images display how the three options would appear on a Structural Plotsheet.



Option 1



Option 2



Option 3

1.6.7 FOLDER NAMING CONVENTION

All sub-folders created within the pre-defined folder structure will be named using the date, followed by a dash (-), followed by a User Description and will take the form of:

YYYY_MM_DD-User Description

Acronym	Description
YYYY	Four digit Year
MM	Two digit Month
DD	Two digit Day
User Description	A description of up to 24 characters, including spaces. The following characters are not permitted < > / \ " " : ; ? * | , = ' & %

1.6.8 LAYERING SCHEME DEFINITION

All layers contained within E/A Design Division drawings have been defined using variations of the Tri-Services and the AIA layer guidelines and standards. All disciplines use a layer standard that is similar. The major components of a standard layer name are defined as follows:

Discipline-Major-Minor-Description-Phase

Field	Description	Length
Discipline	Discipline Code	Table 1.6-D
Major	Major grouping of features that have common characteristics	4 Chr
Minor	Sub grouping of Major category	4 Chr
Description	Extended description of layers for clarity	4 Chr
Phase	Indication of the information's current Phase	Table 1.6-E

Table 1.6-D

CODE	Discipline
A	Architectural
L	Landscape
C	Civil
E	Electrical
N	Environmental
G	Geotechnical
M	Mechanical
S	Structural
T	Traffic
GN	General

Table 1.6-E

CODE	PHASE
EXST	Existing
OTHR	Work by others
RELO	Relocation
RMVL	Removal
TEMP	Temporary

Note that the discipline codes listed in **Table 1.6-D** are for layer definitions only and may not reflect the correct discipline codes for file naming.

For Example:

C-UTIL-STRM-IDEN or C-UTIL-STRM-SYMB-RELO or C-UTIL-STRM-SYMB-RMVL

The field position and character count in each component of the layer stratagem is always to be preserved for standard layer naming. The underscore "_" character is used to both pad and fill unused character spaces in fields or fill entire unused fields. Character padding is always appended to the right side of the fields designation.

For Example:

S-BEAM-STL_-____-EXST

The E/A Design Division layering stratagem consists of eleven discipline groups and a general group that corresponds to spatial data layers to assist in the isolation of information for design purposes and for the translation and use with GIS. Although every attempt has been made to create an all-encompassing standard, reality dictates that additions will need to be made to the layer stratagem. In the case that additions are required, they will only be accepted as additions to minor or description categories. If an addition is required for the discipline or major categories, then a Request to Change Standard Form is required. Refer to **1.28 Appendix M – Request to Change Standard**.

1.7 Project Directory Structure and File Naming Convention (Vault Projects)

Like the Project Directory Structure for the traditional internal CAD volume, the E/A Design Division CAD Standard provides a similar structure for the organization of CAD projects within the Autodesk Vault environment.

The Port Authority of New York & New Jersey Autodesk Vault environment is ONLY accessible to staff working on the internal Port Authority network, at this time. The use of Autodesk Vault by external call-in-consultants is not required, nor will the consultant's independent choice to use the Autodesk Vault product on their own network be supported by the PANYNJ CAD Support group.

1.7.1 Project Directory Structure

EA/D projects which are stored within the Autodesk Vault environment will use a different directory structure than those stored on the CAD volume (aka. The M: Drive). Like the traditional folder structure, the Autodesk

Vault system contains a sub-directory for each facility named using its facility code as displayed in **Table 1.6-A** .

1.7.2 PROJECT IDENTIFICATION NUMBER

Also, like the traditional folder structure, the second level uses the Project Identification Number (PID) which is the same unique Identification assigned for all EAD projects described earlier please see section **1.6.2 Project Identification Number**.

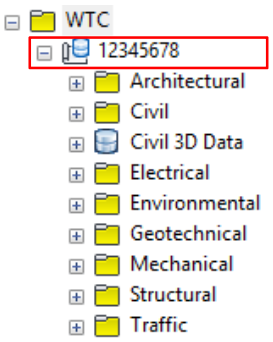


Figure 1.7-1

1.7.3 CIVIL 3D DATA

For AutoCAD Civil 3D to operate within the Vault environment, it requires a Civil 3D Project to be established (by Engineering Vault support). The PID folder is that C3D project. Beneath the PID Folder, in addition to the designated Discipline folders, there is the systems **Civil 3D Data** folder. This folder is not to be used for any purpose other than by the Civil 3D application. There shall be no data directly stored in this location by PANYNJ users.

- Sub-folders are not to be created within the discipline folder.

1.7.4 DISCIPLINE FOLDERS

The Discipline folders are used to share files among all the different disciplines of the Engineering / Architectural Design Division.

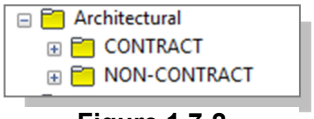


Figure 1.7-2

Every discipline is provided with folders in the project directory in which all design related data is to be stored. Each discipline folder has a series of standardized sub-folders which are to contain the various types of design data. Figure **Figure 1.7-2** illustrates these standardized sub-folders using the Architectural discipline folder as an example.

CONTRACT and NON-CONTRACT folders are the two sub-folders provided inside every Discipline folder.

- Sub-folders are not to be created within the discipline folder

1.7.4.1 RULES OF THE CONTRACT FOLDER

The CONTRACT folder contains four sub-folders i.e. UNMARKED, CONFIDENTIAL, CONFIDENTIAL+PRIVILEGED and SHOP+RFI, these folders are used to share files among all the different disciplines of the Engineering / Architectural Design Division. CONTRACT folder contains all the Contract Drawing files associated with the Contract Document set, all of which will be archived. Depending on the contents/type of the files, some users may be restricted from certain folders.

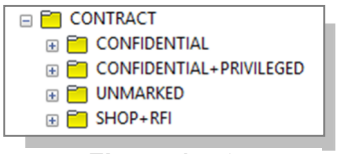


Figure 1.7-3

- Sub-folders are not to be created within the CONTRACT folder.

1.7.4.1.1 Rules of the Unmarked Folder

The UNMARKED folder contains sub-folders, which has the files associated with any “unmarked” Contract Drawings. The Model and Plotsheet should always contain the current version of all CAD drawings related to the project.

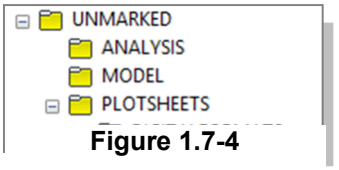


Figure 1.7-4

Drawings shall not make external references from the UNMARKED folder to files within the CONFIDENTIAL+PRIVILEGED or CONFIDENTIAL folders.

- Sub-folders are not to be created within the UNMARKED folder.

Note *the removal of the PUBLISH folder from the folder structure used under the Autodesk Vault environment. The use of state-based workflows in the Vault managed lifecycles rendered the PUBLISH folder unnecessary.*

1.7.4.1.1.1 Security for the Unmarked Folder

The UNMARKED folder is secured by user's memberships in Active Directory groups. The user accounts for all Port Authority staff who have a valid NDA in place are added to one of the following discipline appropriate group which they work under.

PANYNJ\GRP-G-CAD-ENG-EAD-ARCH

PANYNJ\GRP-G-CAD-ENG-EAD-CIVL

PANYNJ\GRP-G-CAD-ENG-EAD-ELEC

PANYNJ\GRP-G-CAD-ENG-EAD-ENVR

PANYNJ\GRP-G-CAD-ENG-EAD-GEOT

PANYNJ\GRP-G-CAD-ENG-EAD-MECH

PANYNJ\GRP-G-CAD-ENG-EAD-STRU

PANYNJ\GRP-G-CAD-ENG-EAD-TRAF

- The UNMARKED sub-folders have read-write permissions assigned to the owning discipline.
- The UNMARKED sub-folders have read permissions assigned to all other disciplines.

1.7.4.1.2 Rules of the Confidential Folder

The CONFIDENTIAL folder contains the sub-folders, which have sensitive contract drawing files that have been "marked" with a security levels of CONFIDENTIAL. It has similar sub-folders as those in the UNMARKED folder with the addition of the "_C" appended to the folder names. Drawings shall not make external references from the CONFIDENTIAL folder to files within the CONFIDENTIAL+PRIVILEGED but may reference UNMARKED folder files.

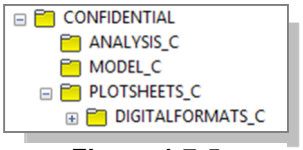


Figure 1.7-5

- Sub-folders are not to be created within the CONFIDENTIAL folder.

1.7.4.1.2.1 Security for the Confidential Folder

The CONFIDENTIAL folder is secured by user's memberships in Active Directory groups. Access to these files is maintained by the LE/A for the project, granted on a need to know basis via PA3624a request. The user accounts for all Port Authority employees who have a valid NDA in place may have their accounts added to one of the following discipline appropriate group which they work under. For Non-Port Authority, onsite-consultants, the LE/A must add these user accounts to PID (Project) specific groups.

PANYNJ Employee	Onsite-Consultants {PID} = PID Number

PANYNJ\GRP-G-CAD-ENG-EAD-PI-ARCH	PANYNJ\GRP-V-CAD-{PID}-C-ENG-EAD-PI-ARCH
PANYNJ\GRP-G-CAD-ENG-EAD-PI-CIVL	PANYNJ\GRP-V-CAD-{PID}-C-ENG-EAD-PI-CIVL
PANYNJ\GRP-G-CAD-ENG-EAD-PI-ELEC	PANYNJ\GRP-V-CAD-{PID}-C-ENG-EAD-PI-ELEC
PANYNJ\GRP-G-CAD-ENG-EAD-PI-ENVR	PANYNJ\GRP-V-CAD-{PID}-C-ENG-EAD-PI-ENVR
PANYNJ\GRP-G-CAD-ENG-EAD-PI-GEOT	PANYNJ\GRP-V-CAD-{PID}-C-ENG-EAD-PI-GEOT
PANYNJ\GRP-G-CAD-ENG-EAD-PI-MECH	PANYNJ\GRP-V-CAD-{PID}-C-ENG-EAD-PI-MECH
PANYNJ\GRP-G-CAD-ENG-EAD-PI-STRU	PANYNJ\GRP-V-CAD-{PID}-C-ENG-EAD-PI-STRU
PANYNJ\GRP-G-CAD-ENG-EAD-PI-TRAF	PANYNJ\GRP-V-CAD-{PID}-C-ENG-EAD-PI-TRAF

- The CONFIDENTIAL sub-folders have read-write permissions assigned to the owning discipline for members with access.
- The CONFIDENTIAL sub-folders have read permissions assigned to all other disciplines for members with access.

Please refer to section 1.11.1Confidential Projects for more information.

1.7.4.1.3 Rules of the Confidential+Privileged Folder

The CONFIDENTIAL+PRIVILEGED folder contains the sub-folders, which have highly sensitive contract drawing files that have been "marked" with a security levels of CONFIDENTIAL+PRIVILEGED. It has similar sub-folders as those in the UNMARKED folder with the addition of the "_CP" appended to the folder names.

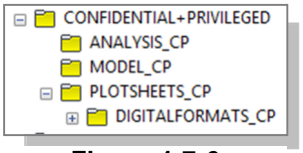


Figure 1.7-6

- Sub-folders are not to be created within the CONFIDENTIAL+PRIVILEGED folder.

1.7.4.1.3.1 Security for the Confidential+Privileged Folder

The CONFIDENTIAL+PRIVILEGED folder is secured by user's memberships in Active Directory groups. Access to these files is maintained by the LE/A for the project, granted on a need to know basis via PA3624a request. The user accounts for all Port Authority employees who have a valid NDA in place may have their accounts added to one of the following discipline appropriate group which they work under. For Non-Port Authority, onsite-consultants, the LE/A must add these user accounts to PID (Project) specific groups.

User accounts granted access to the Confidential+Privileged security groups (materials) are granted access to (all lower) Confidential security designationed materials automatically as well. LE/A's should request accounts be added to the group associated with the highest level of access the consultant will have an "Need to Know"

PANYNJ Employee	Onsite-Consultants {PID} = PID Number
PANYNJ\GRP-G-CAD-ENG-EAD-PI-ARCH	PANYNJ\GRP-V-CAD-{PID}-CP-ENG-EAD-PI-ARCH
PANYNJ\GRP-G-CAD-ENG-EAD-PI-CIVL	PANYNJ\GRP-V-CAD-{PID}-CP-ENG-EAD-PI-CIVL
PANYNJ\GRP-G-CAD-ENG-EAD-PI-ELEC	PANYNJ\GRP-V-CAD-{PID}-CP-ENG-EAD-PI-ELEC
PANYNJ\GRP-G-CAD-ENG-EAD-PI-ENVR	PANYNJ\GRP-V-CAD-{PID}-CP-ENG-EAD-PI-ENVR
PANYNJ\GRP-G-CAD-ENG-EAD-PI-GEOT	PANYNJ\GRP-V-CAD-{PID}-CP-ENG-EAD-PI-GEOT
PANYNJ\GRP-G-CAD-ENG-EAD-PI-MECH	PANYNJ\GRP-V-CAD-{PID}-CP-ENG-EAD-PI-MECH
PANYNJ\GRP-G-CAD-ENG-EAD-PI-STRU	PANYNJ\GRP-V-CAD-{PID}-CP-ENG-EAD-PI-STRU
PANYNJ\GRP-G-CAD-ENG-EAD-PI-TRAF	PANYNJ\GRP-V-CAD-{PID}-CP-ENG-EAD-PI-TRAF

- The CONFIDENTIAL+PRIVILEGED sub-folders have read-write permissions assigned to the owning discipline for members with access
- The CONFIDENTIAL+PRIVILEGED sub-folders have read permissions assigned to all other disciplines for members with access.

Please refer to **section 1.12.4 Confidential Privileged Projects** for more information.

1.7.4.1.4 Rules of the Shop+RFI Folder

The SHOP+RFI folder contains sub-folders, which have the data associated with Stage IV of the project these include Shop Drawings, RFI or similar documents.

- The creation of sub-folders is permitted within the SHOP+RFI folder. (Refer to **1.6.7 Folder Naming Convention** for proper usage).
- The SHOP+RFI sub-folders have read-write permissions assigned to the owning discipline.
- The SHOP+RFI sub-folders have read permissions assigned to all other disciplines.

1.7.4.1.5 Rules of the Model Folder

The MODEL (and MODEL_C or, MODEL_CP) folders is used in an identical manner to the rules outlined in the EAD CAD Standard 1.6.3.4, Rules of the Model Folder. Please refer to this section for operational guidelines.

Multi-disciplinary consulting Engineering or Architectural firms (working offsite) which use this folder structure on their networks are, at their option, permitted to create a HISTORY folder within the MODEL, MODEL_C or MODEL_CP folders to facilitate the external references to MODEL drawings, which are required to maintain the same filename, but must depict conditions at different project phases or other similar circumstances. If a HISTORY folder is established, please see the rules outlined in the EAD CAD Standard section 1.6.3.9, Rules of the History Folder. Please refer to this section for operational guidelines, with the understanding that the MODEL folder will behave as the PUBLISH folder described in section 1.6.3.8

1.7.4.1.6 Rules of the Plotsheets Folder

The PLOTSHEET (and PLOTSHEET_C or, PLOTSHEET_CP) folders is used in an identical manner to the rules outlined in the EAD CAD Standard section 1.6.3.6, Rules of the Plotsheets Folder. Please refer to this section for operational guidelines.

1.7.4.1.7 Rules of the DigitalFormats Folder

The DIGITALFORMATS (and DIGITALFORMATS_C, DIGITALFORMATS_CP) folders will contain only full-size, digital record plots of each sheet issued at the last project milestone submission. The current requirements stipulate use of multi-sheet .PDF format for these files. Please refer to the rules outlined in the EAD CAD Standard section 1.6.5.5, PDF Files for further operational guidelines.

Documents vaulted in this location will be initialized into the Vault environment by the Vault Check-In process on or before the first milestone submission, and subsequent version of these documents will be maintained by Check-Out/Check-In procedure, updating the document records contents while preserving the files historic iterations.

- Sub-folders are not to be created within the DIGITALFORMATS folder.
- The DIGITALFORMATS folder has read-write permissions assigned to the owning discipline.
- The DIGITALFORMATS folder has read permissions assigned to all other disciplines.

1.7.4.1.8 Rules of the Analysis Folder

The ANALYSIS (and ANALYSIS_C, ANALYSIS_CP) folders stores the source materials and artifacts resulting from different types of analytical processes performed with intelligent AutoCAD based content or in support of analysis performed in related project BIM models.

- The creation of sub-folders is permitted within the ANALYSIS folder. (Refer to Error! Reference source not found.for proper usage).
- The ANALYSIS folder has read-write permissions assigned to the owning discipline.
- The ANALYSIS folder has read permissions assigned to all other disciplines.

1.7.4.2 RULES OF THE NON-CONTRACT FOLDER

The NON-CONTRACT folders are used to store any project files that are not associated with the Contract Document set and any working-drawings that are not (yet) approved for distribution to other functional disciplines in the EA/D Division. The NON-CONTRACT folder contains the following six sub-folders i.e. MANAGEMENTDOCS, PUBLIC, RECEIVED, REFERENCE, RELEASED and SCHEMES. See **Figure 1.7-7**

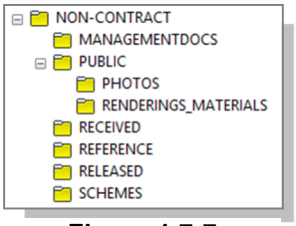


Figure 1.7-7

- Sub-folders are not to be created within the NON-CONTRACT folder.
- The NON-CONTRACT folder has read-write permissions assigned to the owning discipline.

1.7.4.2.1 Rules of the MANAGEMENTDOCS Folder

The MANAGEMENTDOCS folders is used in an identical manner to the rules outlined in the EAD CAD Standard section 1.6.3.3, Rules of the ManagementDocs Folder. Please refer to this section for operational guidelines.

1.7.4.2.2 Rules of the PUBLIC Folder

The PUBLIC folder will accommodate the disciplines needs to share files which are not related to the Contract Drawing documents but useful to other functional disciplines for reference or as common resources. A discipline may copy files into any of the pre-existing folders, making them available for other disciplines to view or reference, or create new sub-folders to accommodate the needs of the project.

- Additional sub-folders are allowed within the PUBLIC folder, naming as defined by needs.

- The PUBLIC folder has read-write permissions assigned to the owning discipline.
- Other disciplines have read permissions assigned to the PUBLIC folder.
- Only specified PUBLIC folders will be archived with the project

1.7.4.2.2.1 Rules of the PHOTOS Folder

The PHOTOS folders is used in an identical manner to the rules outlined in the EAD CAD Standard section 1.6.3.5, Rules of the Photos Folder. Please refer to this section for operational guidelines.

1.7.4.2.2.2 Rules of the RENDERINGS_MATERIALS Folder

The RENDERINGS_MATERIALS folder stores data such as still rendered images, walkthroughs and animations generated for the project. It also may include any project specific or custom materials along with the associated bitmaps or scene components or similar data supporting their production.

- Vendor integrations or plug-ins supporting direct connections to the Vault filesystem and the Check-Out/Check-In procedures should be configured and utilized if available.
- Additional sub-folders are permitted within the RENDERINGS_MATERIALS folder. Folder naming and relevant directory structure should mimic the structure and conventions of the authoring product used, if applicable.
- The RENDERINGS_MATERIALS folder has read-write permissions assigned to the owning discipline.
- Other disciplines have read permissions to the RENDERINGS_MATERIALS folder.
- The RENDERINGS_MATERIALS folders will be archived with the project.

1.7.4.2.3 Rules of the RECEIVED Folder

The RECEIVED folders are used in an identical manner to the rules outlined in the EAD CAD Standard section 1.6.3.11, Rules of the Received Folder. Please refer to this section for operational guidelines.

1.7.4.2.4 Rules of the REFERENCE Folder

The REFERENCE folders servers as the consolidated storage location for drawings traditionally stored in the FromOtherProjects folder, see section 1.6.3.2 and any other needed reference materials such as equipment cuts, material safety data, calculations worksheets etc... Anything can be stored in this folder provided it is not a component part of a contract drawing.

- Additional sub-folders are permitted within the REFERENCE folder, naming as defined by needs
- The REFERENCE folder has read-write permissions assigned to the owning discipline.
- Other disciplines have no access to the REFERENCE folder.

1.7.4.2.5 Rules of the RELEASED Folder

The RELEASED folders are used in an identical manner to the rules outlined in the EAD CAD Standard section 1.6.3.12, Rules of the Released Folder. Please refer to this section for operational guidelines.

1.7.4.2.6 Rules of the SCHEMES Folder

The SCHEMES folders are used in an identical manner to the rules outlined in the EAD CAD Standard section 1.6.3.13, Rules of the Schemes Folder. Please refer to this section for operational guidelines.

1.7.5 SAMPLE VAULT PROJECT FOLDER

To simplify the exchange of information between the various PANYNJ departments, divisions and function groups as well as between consultants and contractors, every attempt will be made to adhere to both the drive mapping and directory structures defined within this section.

A sample project folder structure has been provided with the EAD CAD Standard as shown in **Figure 1.7-8**.

Consultants are required to use this project folder structure replacing the word "Facility Name" with the Facility Code provided in **Table 1.6-A** and the letters "PID" with the eight (8) digit Project Identification Number proved by the LEA.

A copy of the project folder structure can be found at:

K:\Application\EAD\CAD_Standards\2018\All_Disciplines\Sample_Project (VAULT)

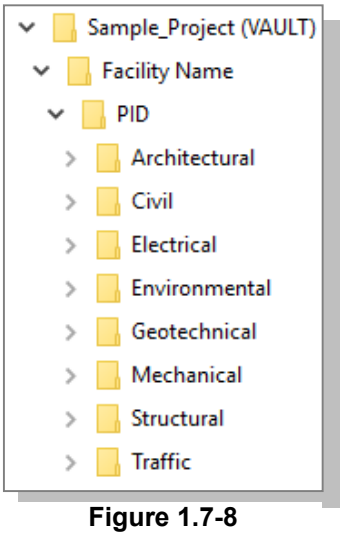


Figure 1.7-8

1.7.6 FILE NAMING CONVENTION

1.7.6.1 DISCIPLINE CODES

Same as **1.6.5.1 Discipline Codes**

1.7.6.2 SHEET SET DATA NAMING CONVENTION

AutoCADSheet Set is required to be used when projects are contracted to produce deliverables that will be loaded in the Port Authorities Vault system. Projects must be created from the PANYNJ provided sheet set templates, and use/reference only the supporting AutoCAD sheet set enabled content distributed as part of the PANYNJ CAD Standard supporting content. This content has been engineered to integrate with the Port Authorities Vault systems. Numerous sheet-set properties and drawing block attributes have been configured for interrogation on check-in to the vault, which in turn populates properties on which various Vault processes are based.

A Sheet Set will be set up by each disciplines Task Leaders using the Sheet Set created by the Lead Discipline. Sheet Sets files outside of the Vault have a .DST file extension, while Vaulted Sheets Sets use .DSS

1.7.6.2.1 Sheet Set Data file

Every discipline contracted in a project will create and manage a discipline specific sheet set (.DST) stored in the PLOTSHEETS folder of the owning discipline.

An example Sheet set file, "PA - SheetSet Master.dst", have been provided, which must be used by all the disciplines contracted in the project. This file can be found at:

K:\Drive\Application\EAD\CAD_Standards\2018\All_Disciplines\Template\SSM

The lead-discipline's Task Leader may provide this file to the consultant

Sheet Sets are named in the format of:

DPID.dst

Acronym	Description
D	Discipline Code
PID	Eight Digit Project Identification Number

For example: G1052000.dst or A15012000.dst

Sheet Creation and Sheet Storage Location shall be set to the PLOTSHEETS folder of the owning discipline. Sheet Set "Subsets" shall be configured to support CONFIDENTIAL or CONFIDENTIAL+PRIVILEGED project data with the required security/access control. The Sheet Storage Location(s) for these subsets shall be configured to store their drawings in their respective CONFIDENTIAL\PLOTSHEETS_C, or CONFIDENTIAL+PRIVILEGED\PLOTSHEETS_CP folder structures for the owning discipline.

1.7.6.2.2 Sheet Set Template

Based on the discipline trades desired drawing units, New sheets must be created using one of the provided Sheet creation template,

"PA - SSM Contract Boarders - arch-inch.dwt"

or

"PA - SSM Contract Boarders - deci-feet.dwt".

These files can be found: K:\Drive\Application\EAD\CAD_Standards\2018\All_Disciplines\Template\SSM

Sheet set properties as shown

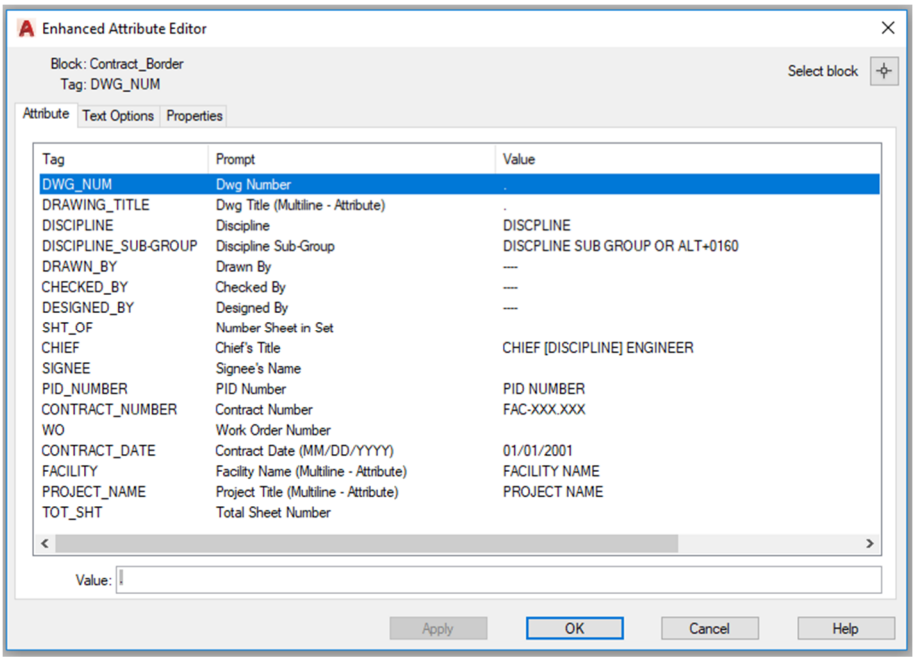


Figure 1.7-9 Sheet Set Properties

1.7.6.3 DATA STANDARDS (FOR PA EMPLOYEES USING VAULT)

Data Standard is a data control feature for the Autodesk Vault Client and AutoCAD that allows administrators to enforce how users enter Vault data. Data Standard plugin will be installed by the PA CAD support group for the vault Project team.

When starting a new Model or Plot sheet file, create a new document using the PA standard CAD template (PA – Arch-inch.dwt or PA – Deci-feet.dwt) and Navigate to the Data standard Ribbon and select Data Set, the Data Standard dialog (As shown in **Figure 1.7-10 Data Sheet tool and New File Dialog Box**) appears requesting the project data for the file. Once the user completes all the fields, Data Standard generates the PANYNJ compliant filenames, as well as perform the initial Check-In and save the file to the correct project location based on the data. The Save button becomes active only when all required fields are complete.

Once the document has been saved, the entered data is mapped to the file's properties. Through this automated process, the vault users don't need to locate the project folders, revise the file, or generate a file name.

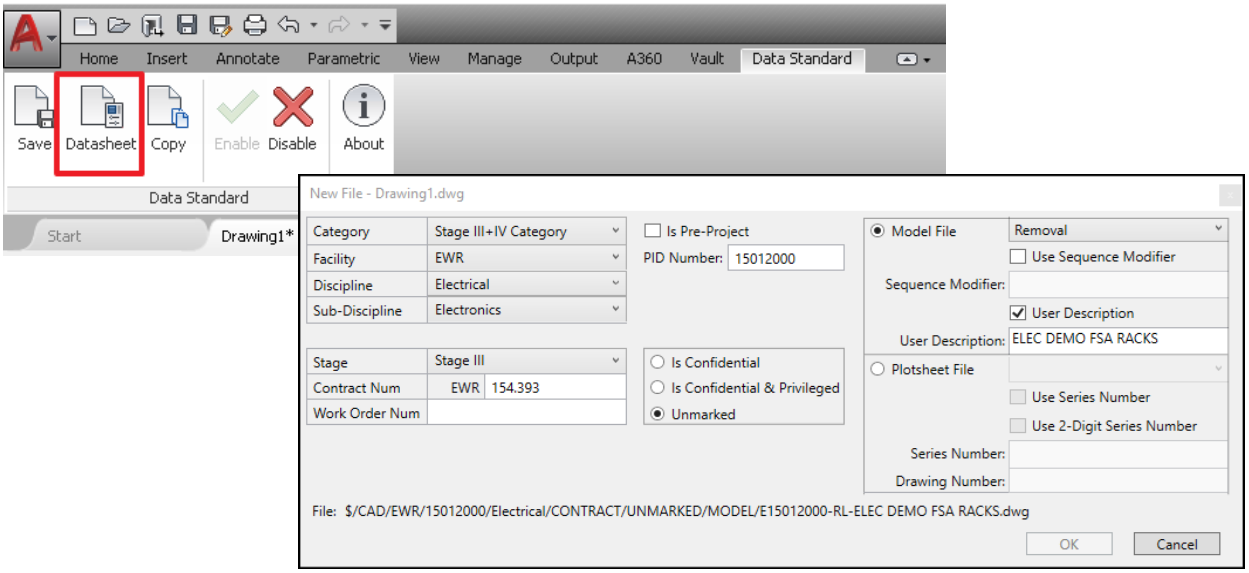


Figure 1.7-10 Data Sheet tool and New File Dialog Box

1.7.6.4 SHEET SET MODEL VIEWS

The Sheet Set Model Views shall be configured to be make external references from the three (3) respective MODEL folders as necessary to support CONFIDENTIAL, CONFIDENTIAL+PRIVILEGED projects located in the Design Folder of each discipline.

..\CONTRACT\MODEL

..\CONFIDENTIAL\MODEL_C

..\CONFIDENTIAL+PRIVILEGED\MODEL_CP

1.7.6.5 MODEL FILES

Refer Section **1.7.6.3 Data Standards (For PA employees using Vault)** to create new model files.

1.7.6.6 PLOTSHEET FILES

Once the discipline Sheet-Set is configured, sheets may be created through 2 methods,

It could be added through the Sheet-Set Manager, which will create the PLOTSHEET, and on Check-In save the drawing to the correct location within the Vault project folder structure, as shown in **Figure-1.7-11**

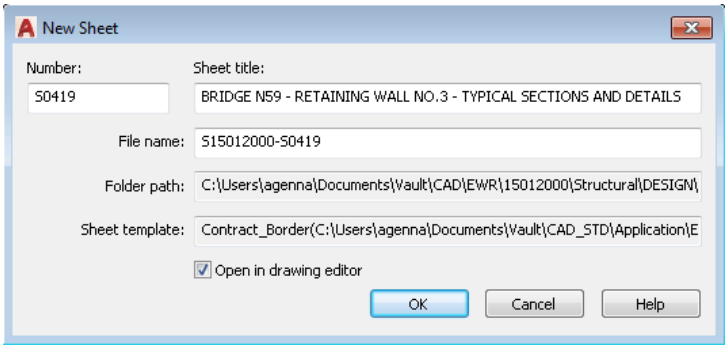


Figure-1.7-11

Or

Plotsheets also could be created using the Data Standard as shown in section **1.7.6.2 Sheet Set Data Naming Convention**

1.7.6.6.1 Plotsheet Plan Type

Same as section **1.6.5.4.1 Plotsheet** Plan Type

To support the Port Authorities migration to Autodesk Vault, Plotsheet files may now only contain one (1) Contract Border (layout) per file.

1.7.6.7 CONTRACT BORDER

The removal of the PUBLISH folder requires that we modify the traditional workflow of creating a contract border file and saving it in the MODEL folder of the lead discipline.

Refer Section **1.7.6.2 Data Standards** (For PA employees using Vault), to create new file. Contract Borders is loaded as a Block within the PA standard template "PA - SSM Contract Boarders - arch-inch.dwt" or "PA - SSM Contract Boarders - deci-feet.dwt".

On creation of Plotsheets through Sheet set Manger, once the discipline specific Sheet Set data file has been Created, the newly created plotsheet is pre-loaded with the Contract Border Block in the layout view. The Contract Borders Block attributes acquires the project information from discipline specific Sheet set as shown in the **Figure 1.7-9 Sheet Set Properties** The Contract Border Block also contains sheet specific information, that should be filled in to confer with the PA standard naming convention. (see **Figure 1.7-12**)

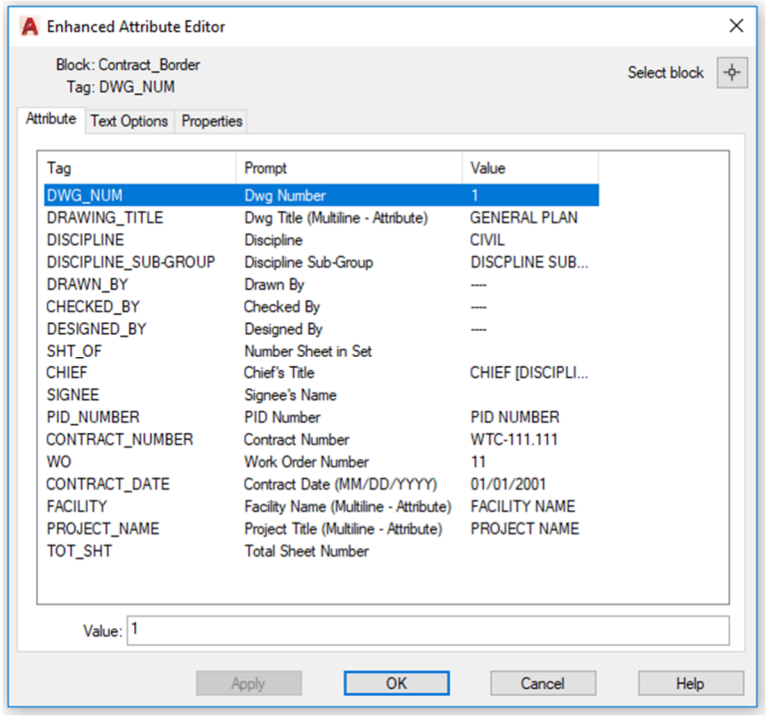


Figure 1.7-12 Contract Border Attribute Editor

1.7.7 DRAWING NUMBER CONVENTION

Same as Section 1.6.6 Drawing Number Convention

1.7.8 FOLDER NAMING CONVENTION

Same as Section 1.6.7 Folder Naming Convention

1.7.9 LAYERING SCHEME DEFINITION

Same as Section 1.6.8 Layering Scheme Definition

1.8 CAD PRACTICES AND PROCEDURES

CAD drawing files must be consistently formatted in order to provide an effective method of data dissemination and retrieval. To that end, these standards will guide the user in the requirements of layer naming, graphic symbology, lettering styles, drawing units and other drawing related features.

1.8.1 COORDINATE SYSTEMS

In an effort to organize, consolidate and standardize the information generated and consumed by all divisions within the agency, Coordinate Systems must be used on all projects. The objective of this requirement is to make the data files easier for users to identify and integrate in planning and design.

The default horizontal systems are the State Plane NAD83 New York East and Long Island Foot systems and default vertical system is the State Plane NAVD88 system.

1.8.2 ENTITY AND LAYER LINETYPES

Standard E/A Design Division linetypes have been created for use with all design documents. These linetypes have been assigned to their respective layers in the <Layers.dwt> drawings, which have been provided for each discipline as part of this standard. Additional linetypes have been created for special circumstances when the lettering within a linetype needs to be rotated. Many of the linetypes supplied require the use of a textstyle named LINEFONT, starting a drawing with the template drawings provided as part of this standard will ensure that the linetypes are loaded correctly. All entities will have their linetype assigned “bylayer” and not “byentity”. The two exceptions to this are:

- Symbol entities that have their linetypes assigned to “byblock”.
- The use of “short” or “rotated” variations of a linetype needed for a particular entity.

To ensure correct linetype scaling settings for Plotsheet drawings the “LTScale” and “PSLTScale” variables will be set to “1”. This sets all linetypes to be scaled based on the paper space viewport scale factor.

For design (MODEL) files, which utilize model space, will have the “LTScale” variable set to the drawing scale.

For discipline specific linetype usages refer to **1.16 Appendix A – Architectural Discipline** through **1.23 Appendix H – Traffic Discipline**. All entities will be drawn on the specified layers and must have color assigned to “bylayer” and not “byentity”. Layer color assignments are included in the layer definitions provided.

For discipline specific color usages refer to **1.16 Appendix A – Architectural Discipline** through **1.23 Appendix H – Traffic Discipline**.

1.8.3 SYMBOLOGY

A symbol is defined as a pre-arranged group of geometry that can be inserted at scale into a drawing. The AutoCAD term for a symbol by this definition is “block”. There are two (2) types of symbols provided in this standard, Scalable and Non-Scalable symbols. Standard E/A Design Division symbols have been provided as part of this standard.

For discipline specific symbol definitions refer **1.16 Appendix A – Architectural Discipline** through **1.23 Appendix H – Traffic Discipline**.

1.8.3.1 SCALABLE SYMBOLS

Scalable symbols are created with the intent that they will appear the same size when plotted at different scales.

- Symbols are created on Layer “0” and will automatically take on the characteristics of the layer they are inserted on. All symbols will be inserted on the layer identified within this standard.
- For ease of use, the insertion scale factor of each scalable symbol will depend on the plot scale.

For Example:

If the scale of the viewport is 1:30, then each symbol inserted in the drawing will be scaled up by a factor of 30. If the scale of the viewport is 1/8"=1'-0", the symbol will be inserted into the drawing with a scale factor of 96.

1.8.3.2 NON-SCALABLE SYMBOLS

Non-Scalable symbols are created with the intent that they will appear at true size for all plot scales.

- Symbols are created on Layer "0" and will automatically take on the characteristics of the layer they are inserted on. All symbols will be inserted on the layer identified within this standard.
- The insertion scale factor for all Non-Scalable symbols will be "1".

1.8.3.3 CREATING SYMBOLS

Symbols must be documented and supplied to the CAD committee in digital format as a single AutoCAD drawing file accompanied by a plot of the symbol and a Request to Change Standard Form found in **1.28 Appendix M – Request to Change Standard.**

- Symbols will be created on Layer "0". Other layers may be present in the drawing for supplemental information such as text within the symbol.
- Symbols will be created using the current version of AutoCAD software in use by the E/A Design Division.
- Colors and Linetypes will always be set to "bylayer".
- Text within the symbol will utilize one of the Text Styles provided within this standard so that it is legible upon plotting.
- The symbol will be drawn so that the insertion point is located appropriately and is at 0,0,0.
- The "base" of the drawing will be set to 0,0,0.
- The symbol drawing will be purged of all unused blocks, layers, linetypes, text styles, etc.

1.8.4 PLOTTED LINEWEIGHTS

Table 1.8-A

Variable	Value
Color	Black
Dither	On
Virtual Pen Number	Automatic
Linetype	Use Object Linetype
Adaptive	On
Line End Style	Use Object End Style
Line Join Style	Miter
Fill Style	Use Object Fill Style

The colors used in the layer definitions provided within this standard correspond to plotted pen weights. AutoCAD products make use of a CTB file to assign pen weights to object colors. All E/A Design Division Contract Drawings are to be plotted using the "PA-Master.ctb" file that is provided with this standard. Many variables within the CTB file remain constant throughout the pen assignments, these variables are defined in Table 1.6-A. The pen numbers, lineweights and percent screening assigned to the pens used in the "PA-MasterFull.ctb" file is displayed in Table 1.6-B. The values displayed in Table 1.8-A and Table 1.8-B are for Contract Drawings, disciplines are permitted to use their own ctb files for presentation purposes.

Table 1.8-B

Pen	Color	Weight	Screen
1		0.0100	100%
2		0.0140	100%
3		0.0200	100%
4		0.0360	100%
5		0.0080	100%
6		0.0240	100%
7		0.0080	100%
8		0.0080	100%
9		0.0080	100%
10		0.0140	100%
11		0.0180	100%
12		0.0100	100%
13		0.0280	100%
14		0.0080	100%
15		0.0140	100%
20		0.0180	100%
21		0.0080	100%
23		0.0200	100%
24		0.0320	100%
30		0.0400	100%
31		0.0080	100%
32		0.0200	100%
33		0.0240	100%
35		0.0240	100%
37		0.0080	100%
40		0.0200	100%
41		0.0140	100%
42		0.0080	100%
43		0.0240	100%
46		0.0040	100%
50		0.0200	100%
51		0.0280	100%
52		0.0240	100%

Pen	Color	Weight	Screen
53		0.0040	100%
54		0.0100	100%
60		0.0160	100%
61		0.0100	100%
62		0.0080	100%
71		0.0100	100%
80		0.0100	100%
81		0.0200	100%
82		0.0140	100%
83		0.0080	100%
90		0.0240	100%
92		0.0120	100%
93		0.0080	100%
96		0.0100	100%
100		0.0160	100%
110		0.0080	100%
120		0.0200	100%
121		0.0140	100%
130		0.0100	100%
131		0.0200	100%
132		0.0040	100%
133		0.0080	100%
140		0.0240	100%
141		0.0320	100%
142		0.0180	100%
143		0.0080	100%
144		0.0720	100%
148		0.0100	30%
150		0.0280	100%
170		0.0200	100%
172		0.0240	100%
180		0.0040	100%
190		0.0080	100%

Pen	Color	Weight	Screen
110		0.0080	100%
120		0.0200	100%
121		0.0140	100%
130		0.0100	100%
131		0.0200	100%
132		0.0040	100%
133		0.0080	100%
140		0.0240	100%
141		0.0320	100%
142		0.0180	100%
143		0.0080	100%
144		0.0720	100%
148		0.0100	30%
150		0.0280	100%
170		0.0200	100%
172		0.0240	100%
180		0.0040	100%
190		0.0080	100%
191		0.0140	100%
192		0.0240	100%
194		0.0200	100%
200		0.0100	100%
201		0.0280	100%
202		0.0100	100%
210		0.0160	100%
211		0.0320	100%
212		0.0140	100%
220		0.0200	100%
221		0.0040	100%
222		0.0100	100%
223		0.0040	100%
230		0.0160	100%
231		0.0240	100%

Pen	Color	Weight	Screen
232		0.0440	100%
234		0.0160	100%
240		0.0040	100%
241		0.0080	100%
242		0.0040	100%
244		0.0080	100%
250		0.0040	80%
251		0.0080	70%
252		0.0080	60%
253		0.0080	50%
254		0.0040	40%
255		0.0480	100%

1.8.5 TEXT STYLES AND HEIGHTS

To promote consistency in Contract Drawings as well as prevent the use of “third-party” un-licensed AutoCAD font files, and to ensure a consistent plotted appearance of text, only ARIAL.TTF, ARIALN.TTF, and RomanS fonts are permitted for use on E/A Design Division Contract Drawings. It should be noted that RomanS font is not permitted for general use, being reserved specifically for use in Line Types that contain text.

Six Text Styles have been provided as part of this standard. Two of the Text Styles provided (ARIAL, and Linefont) are used for Contract Border, Drawing Information or Linetype definitions and are not permitted for general use by the disciplines. The remaining four Text Styles provided, which are permitted for use by the disciplines are created as annotative styles and utilize ARIAL.TTF font. Annotative styles allow the AutoCAD product to scale the text heights appropriately based on the scale of the plotted drawing. The Text Styles provided are:

Text Style	Plotted Height	Annotative	Font	Description of Usage	Usable by Disciplines
PA – 0.10	0.10”	Yes	ARIAL.TTF	Normal Text	Yes
PA – 0.15	0.15”	Yes	ARIAL.TTF	Headings	Yes
PA – 0.20	0.20”	Yes	ARIAL.TTF	Titles	Yes
PA – 0.25	0.25”	Yes	ARIAL.TTF	Alternate Titles	Yes
Linefont	0.10”	No	RomanS.shx	Linetype Definitions	No
ARIAL	Varies	No	ARIAL.TTF	Contract Border and Drawing Info	No

1.8.6 DIMENSION AND LEADER STYLES

To promote consistency in Contract Drawings only the Dimension and Leader Styles that have been provided as part of this standard are permitted for use. The Three Dimension Styles and eight Multi-Leader Styles that have been provided are:

Dimension Style	Arrow Head	Content	Unit Type
PA-Arrow	Closed Filled Arrow	0.10” Mtext	Inches
PA-Arrow-Deci	Closed Filled Arrow	0.10” Mtext	Feet
PA-Tick	Tick	0.10” Mtext	Inches

Multi-Leader Style	Arrow Head	Content
PA-Arrow	Closed Filled Arrow	0.10” Mtext
PA-Loop	Open Loop	0.10” Mtext
PA-Circle	Dot Blank	0.10” Mtext
PA-Dot	Dot	0.10” Mtext
PA-Integral	Integral	0.10” Mtext
PA-DOT-Keynote-Box	Dot	Box
PA-DOT-Keynote-Circle	Dot	Circle
PA-DOT-Keynote-Hex	Dot	Hexagon

1.8.7 TABLE STYLES

As with the text and dimension styles, the EAD CAD Standard has provided Table Styles as part of this standard in an attempt to promote consistency throughout the creation of Contract Drawings.

Table Style	Description of Usage
PA-Table	General Tables

1.8.8 EXTERNAL REFERENCE FILES

Files that are “attached” using AutoCAD’s XREF command should always use the coordinate 0,0 for two-dimensional files or 0,0,0 for three-dimensional files as the insertion point and a zero rotation angle.

All external reference drawings will be attached as “Overlays”. By adhering to this process, all users will be able to use drawings within their own disciplines as well as drawings from other disciplines without concern for circular references and other potential problems. The path type will be set to “Relative Path”, for both, external reference drawings and external reference images, this process will ensure the proper exchange of drawings and/or images between in-house staff and outside consultants.

1.8.9 EXTERNAL REFERENCE FILES (FOR VAULT ONLY)

Files that are “attached” using AutoCAD’s XREF command should always use the coordinate 0,0 for two-dimensional files or 0,0,0 for three-dimensional files as the insertion point and a zero-rotation angle.

All external reference drawings will be attached as “Attachments”. By adhering to this process, all users will be able to use drawings within their own disciplines as well as drawings from other disciplines. However, the concern for circular references and other potential problems is there. So, attach with caution. The path type will be set to “Relative Path”, for both, external reference drawings and external reference images, this

process will ensure the proper exchange of drawings and/or images between in-house staff and outside consultants.

1.8.10 SUBMISSIONS

CAD files in DWG and PDF format, accompanied with hardcopies are required at every Submittal Milestone.

Until project completion, all current working drawings are saved in the MODEL, PLOTSHEETS and PUBLISH folders of each discipline's root directory.

At every Submittal milestone, the working project information will be copied into the SUBMITTALS folder for archiving, to preserve the state of the drawings at the moment of that milestone. At the completion of every milestone, each discipline will copy its MODEL, PLOTSHEETS and PUBLISH folders, along with the MANAGEMENTDOCS and PHOTOS folders, into the appropriate milestone sub-folder within SUBMITTALS. Refer to **1.6.3.15 Rules of the Submittals Folder** for a listing of Submittal Folders provided.

Once the folders have been copied, the involved Task Leaders will notify the LEA, who will then notify the CAD Support Group by filling out the Project Archival Request Form on EOL. Refer to **1.27.2 Request Project Archival**. Upon notification, the CAD Support Group will move the files to the Archive server, mapped internally as the "N:\" drive, leaving behind a text file named ARCHIVED YYYY-MM-DD.txt containing the exact location where the files can be found.

The CAD Support Group will only move files from the discipline's SUBMITTALS folder to the ARCHIVE server.

The SUBMITTALS folder is for internal use only. Consultants are required to submit the entire Project Folder Structure as outlined in **1.6.1 Project Directory Structure and File Naming Convention** containing not only the Discipline folder in which their drawings are saved but also all other Discipline folders from which external references were made.

Consultants will submit their folder structure directly to their own Discipline's Task Leader. The Task Leader will copy the consultant's MODEL, PLOTSHEETS and PUBLISH folders, along with the MANAGEMENTDOCS and PHOTOS folders, into both the discipline's root directory and the appropriate milestone sub-folder within SUBMITTALS.

1.8.10.1 STAGEI_100PERCENT

Stage I (Conceptual Design) is necessary for some projects to develop design concepts, determine anticipated construction costs and schedules, and to compare alternatives before proceeding with Design Development (Stage II) or Final Design (Stage III).

1.8.10.2 STAGEII_100PERCENT

Stage II (Design Development) is necessary to develop the chosen design concept, further refine anticipated construction costs and schedules before proceeding with contract documents.

1.8.10.3 STAGEIII_PA-REVIEW

The Stage III (Final Design) effort includes preparation of contract documents that will be used for construction. The procedures vary for alternate delivery methods such as Quick Bid Contracts, Work Order Contracts, Design/Build Contracts and Design/Build/Operate/Maintain Contracts.

PA Review usually happens when the project is between 90% to 95% complete, this may vary depending on the project specifics. When a project reaches PA-Review, drawings are required so the Electronic Review Process can begin.

1.8.10.4 STAGEIII_AS-ADVERTISED-SIGNED-SET

The signed and sealed 100% submission plotted on Permalife® paper is the "As Advertised Signed Set".

1.8.10.5 STAGEIII_ADDENDUM

The Addendum Set contains drawings that have been modified or new drawings that have been issued after the original As Advertised Signed Set was signed and issued. Not all addenda contain drawings; some may only contain specifications. Therefore, an Addendum Set may contain non-consecutive addenda sub-folders. The StageIII_Addendum folder should only contain the Addenda sub-folder in which drawings were required. This folder should not contain the entire set of CAD files; it should only contain the Addenda files.

The revision procedures detailed in section **1.10.3.5 Making Revisions in Contract Drawings** apply to Addenda.

1.8.10.6 STAGEIII_AS-BID

The As-Bid Set is the Bid and Awarded Set of Drawings, which incorporates all the addenda that have been issued.

1.8.10.7 STAGEIV_PACC

The PACC Set (Post Award Contract Changes) contains drawings that have been modified or new drawings that have been issued after the Contract was awarded.

The revision procedures detailed in section **1.10.3.5 Making Revisions in Contract Drawings** apply to PACC Sets.

1.8.10.8 STAGEIV_DRAWING-OF-RECORD

The Drawing-of-Record Set is the set of drawings created after construction is completed.

1.8.11 SUBMISSIONS (FOR VAULT PROJECT ONLY)

External consultant still needs to provide CAD files in DWG and PDF format, accompanied with hardcopies are required at every Submittal Milestone.

Until project completion, all current working drawings are saved, by consultants, in the MODEL, PLOTSHEETS and PUBLISH folders of each discipline's root directory. In-house projects will be saved in the MODEL and PLOTSHEET folders in the Vault environment. For the In-house submission process, look at the following sections.

Unlike physical drawing sets that may get bound into multi-page packages, Vault relies on the "Labels" to dynamically assign drawings into sets. Without labels Vault is only concerned with individual document records, each tagged and tracked separately, unconnected to one another. Successful project milestone archiving relies on documents sharing a common label. **(Refer Figure 1.8-1)**

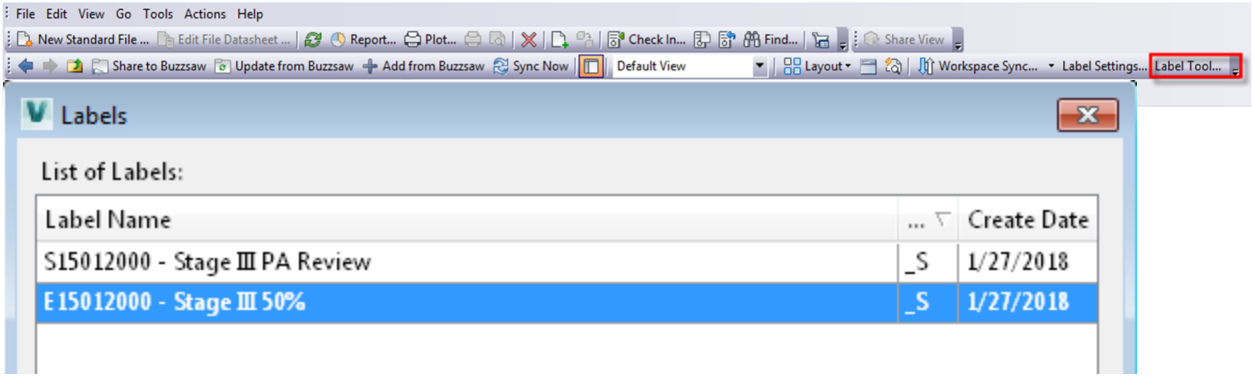


Figure 1.8-1

The Port Authority will use Labels to preserve precise state of every Vault versions of each drawing that constitutes an issued milestone set. We will NO LONGER e-transmit (or make copies of) documents to the "Submittals" folder.

At every Submittal milestone, every disciplines task leader should be selecting the files in the Files and adding them to the appropriate label names.

1.8.11.1 MILESTONE LABEL NAMING CONVENTION

Vault will require the following Milestone Label Naming Convention rules that govern the proper nomenclature for users to create Vault labels, such that they do not collide with the existing labels for other Vault project milestones.

The standard Vault labeling format required should be:

<Discipline Code><Project PID> - <Standard Milestone Name>

e.g. G87654321 – PA Review or A12345678 – 50% Internal Review

1.8.11.2 STAGEIII_50PERCENT (VAULT LABELING)

Stage III (Final Design) is necessary for some projects to develop determine anticipated construction costs and schedules, and to compare alternatives before proceeding with Design Development (Stage II) or Final Design (Stage III).

1.8.11.3 STAGEIII_100PERCENT (VAULT LABELING)

Stage III (Final Design) is necessary to develop the chosen design concept, further refine anticipated construction costs and schedules before proceeding with contract documents.

1.8.11.4 STAGEIII_PA-REVIEW (VAULT LABELING)

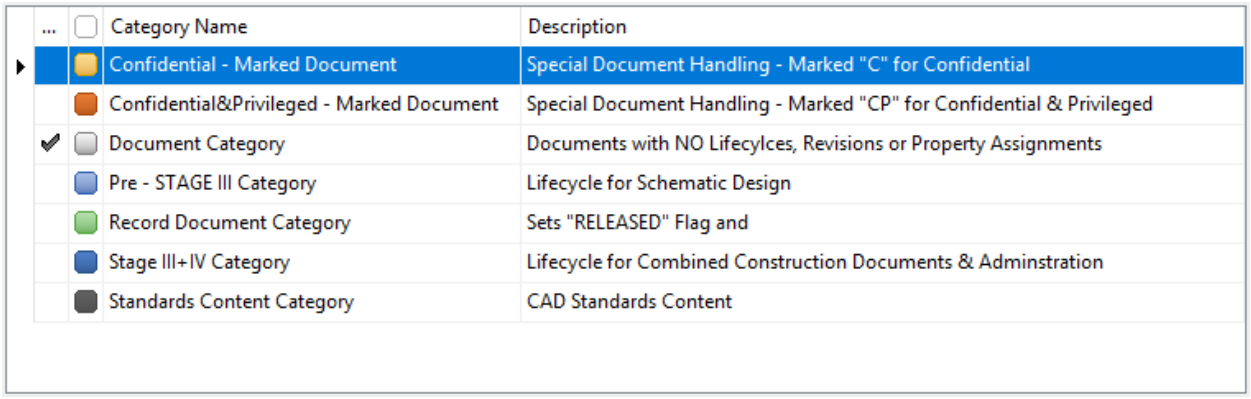
The Stage III (Final Design) effort includes preparation of contract documents that will be used for construction. The procedures vary for alternate delivery methods such as Quick Bid Contracts, Work Order Contracts, Design/Build Contracts and Design/Build/Operate/Maintain Contracts.

PA Review usually happens when the project is between 90% to 95% complete, this may vary depending on the project specifics. When a project reaches PA-Review, drawings are required so the Electronic Review Process can begin.

1.8.12 CATEGORIES (FOR PA EMPLOYEES USING VAULT)

Categories are used as a layer of glue that binds the other information systems to files and folders stored in the Vault. Categories push the assignment of Properties, Life Cycles and Revision formatting to vaulted content. While there is a rule-based system that can be used to determine the category on the first check-in, the PANYNJ configuration with rely on the use of “Data Standards” and user’s selection for appropriate value.

The following **Figure 1.8-2** shows the list of categories currently configured in Vault environment that could be applied to the files depending on the stage and security level of the project.



...	Category Name	Description
▶	Confidential - Marked Document	Special Document Handling - Marked "C" for Confidential
	Confidential&Privileged - Marked Document	Special Document Handling - Marked "CP" for Confidential & Privileged
✔	Document Category	Documents with NO Lifecylces, Revisions or Property Assignments
	Pre - STAGE III Category	Lifecycle for Schematic Design
	Record Document Category	Sets "RELEASED" Flag and
	Stage III+IV Category	Lifecycle for Combined Construction Documents & Adminstration
	Standards Content Category	CAD Standards Content

Figure 1.8-2

1.8.13 LIFECYCLE STATE (FOR PA EMPLOYEES USING VAULT)

Lifecycle States (LCS) are the basic elements in the Vault workflow system. The lifecycle definition, a named collection of states, uses the state to identify the object's status in the workflow. The traversal of files through the life cycles provides the framework guiding document flow-control. LCS supports property validation and allows for the configuration’s automatic actions. LCS provide the means to alter the permitted access to data, when state-based security is used. The image below shows the Lifecycle Definitions being used in Vault. See **Figure 1.8-3**

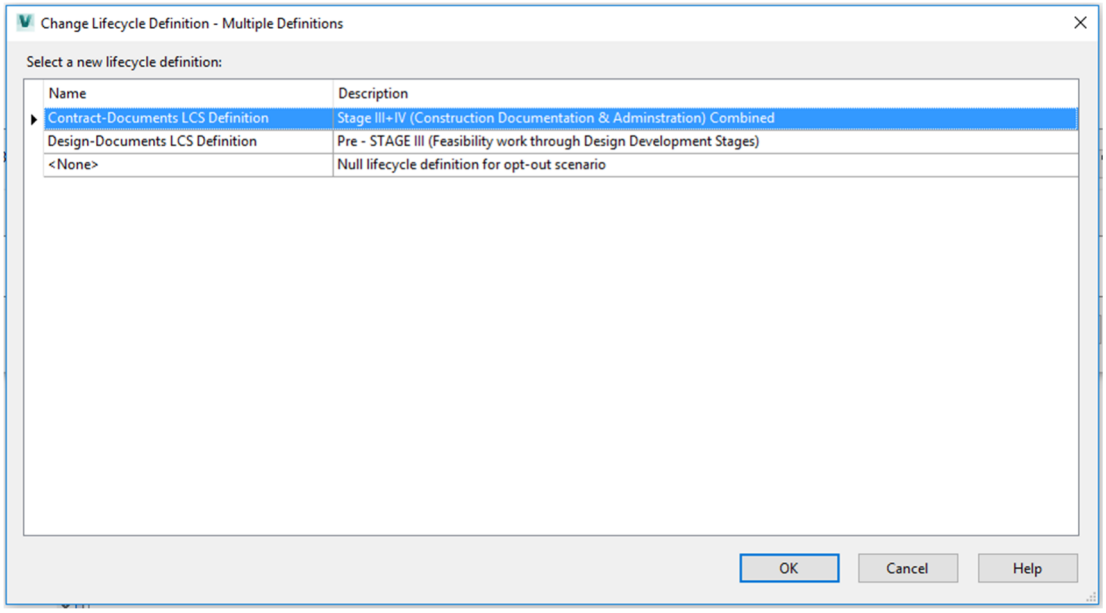


Figure 1.8-3

1.8.13.1 TRANSITION OF LIFECYCLE STATES

The configuration of life cycle definitions includes **working states**, where alteration of the design data is permitted, and **record states** where a document version is marked as read-only in the Vault document's history. In the working states, documents are checked-out for edit on an as needed basis. At the conclusion of work or at the end of the workday documents should be checked-in to the vault system to make them available for edit by other users. Once a document is checked-out for editing, the user has the exclusive ability to change the document/drawing, while other users may use read-only versions of the vaulted file. Some of the working states created for our pilot include "Design", "Addenda", and "PACC".

Task Leaders/LEA's from each Discipline must make sure the Drawings submitted for Review are in the correct provided states for the project files according to the project milestone and schedule. (See **Figure 1.8-4)**

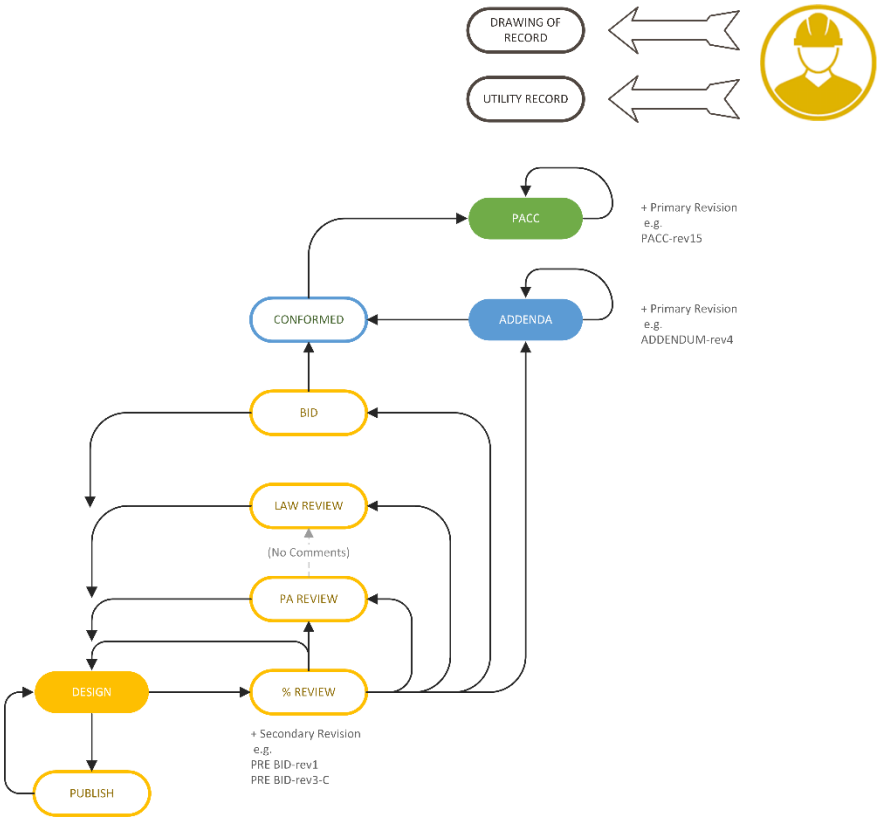


Figure 1.8-4

1.8.14 CAD ENVIRONMENT SETUP

In order to plot successfully using this standard, some configuration of the AutoCAD environment will be necessary. This configuration will only need to be done once and will streamline plotting moving forward.

1.8.15 TEMPLATE DRAWING SETUP

For proper plotting and consistency, the EAD CAD Standard makes use of template drawing files. Supplied with this standard are two primary template files, "PA-deci-feet.dwt" for Decimal units and "PA-arch-inch.dwt" for Architectural units. Also provided are several discipline-specific templates, to be used as directed by each discipline's Task Leader (see Template Files list on p. 10). To install either of these template drawings, copy them to the appropriate "Template" directory in your AutoCAD environment install directory.

All templates are essentially blank drawings saved with the extension ".dwt", that have been started from scratch, been assigned a unity type and make use of a CTB file. In addition, both templates have the Text Style LINEFONT defined for use with the EAD CAD Standard linetypes. If you currently have a drawing template ensure that your template has the "Use Color Dependent Plot Styles" option selected and the "Default plot style table" set to "PA-MasterFULL.ctb" as shown in **Figure 1.8-5**. These options are found under the "Plot Style Table Settings" button of the Plot and Publish tab in the Options dialog box.

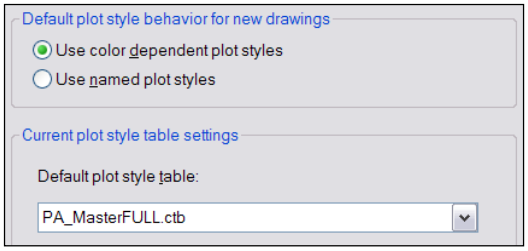


Figure 1.8-5

1.8.16 UNITS

Every object created is measured in drawing units. Before drawing can begin, the drawing units used will need to be decided based on the type of plan being drawn. All drawings will be created at actual size with the unit convention decided on.

For Example:

For a drawing with units assigned to inches a distance of one drawing unit represents one inch in real-world units.

Template files have been provided for both, Architectural units (inches) and Decimal units (feet). These templates can be found at:

K:\Application\EAD\CAD_Standards\2018\All_Disciplines\Template

The creation of all drawings will be accomplished by using one of the two templates provided with the EAD CAD Standard. By adhering to this process problems will be avoided when loading custom EAD linetypes. For a listing of which templates are typically used by each discipline refer to Table 1.8-C.

Table 1.8-C

Architectural Units	Decimal Units
Architectural	Civil
Electrical	Environmental
Mechanical	Geotechnical
Structural	Traffic

1.9 PLOT SETUP

All drawings will be plotted from a paper space layout tab. The tab will be named the same as the sheet number being plotted. Full-size and Half-size sheets may be plotted from a single layout by utilizing page setups. Multiple layouts are not to be used for the separation of Full-size and Half-size sheets. Multiple layouts may be used for the plotting of multiple sequential sheets.

Stage I CAD Standard

In an effort to streamline the CAD projects within the E/A Design Division a comprehensive CAD Standard has been developed. Although this standard was intended for use with projects that are at Stage II or beyond, many of the ideas are to be implemented during the Stage I effort.

1.9.1 PAGE SETUP

Page Setups enable the user to save specific settings within the AutoCAD plotting environment. The Page Setups created for the in-house designers make use of PC3, PMP and CTB files as well as configuration changes. PC3 files are typically copied to the “Plotters” folder under the root AutoCAD installation directory. The Page Setups created for in-house use are located on the internal network at:

K:\Application\EAD\CAD_Standards\2018\All_Disciplines\Page_Setups

The Page Setups that contains the PC3, PMP and CTB of the Port Authoriy are for the use of in-house designers since they are configured for the plotters within the Agency. Outside consultants will not have access to the Port Authority’s plotters.

1.9.2 STAGE I PROJECT DIRECTORY STRUCTURE

The project directory structure, which resides on the “M:\” drive and is described in **1.6 Project Directory Structure and File Naming Convention** of this document will be maintained.

1.9.2.1 PROJECT IDENTIFICATION NUMBER

A project Identification is assigned when the first charge code is developed. If a PID is available, a project folder with the PID will be created in the appropriate facility folder located on the “M:\” drive. If a PID is not available, a project folder will be created within the Pre-Projects folder located on the “M:\” drive.

1.9.2.2 FILE NAMING CONVENTION

If a PID is available, the project naming convention identified in **1.6.5 File Naming Convention** will be maintained. If a PID is not available, a number generated by the CAD Support Group will temporarily substitute for the PID, until one is available.

1.9.2.3 LAYERING SCHEME

The layering scheme explained in **1.6.8 Layering Scheme Definition** of this document will be maintained. The layer colors may be adjusted to suit the needs of any presentations being prepared.

1.9.2.4 ENTITY AND LAYER LINETYPES

Linetypes will be used as described in **1.8.2 Entity and Layer Linetypes** of this document. If additional linetypes are created for illustration purposes, the linetype file must accompany the CAD file. The linetype file shall use the PID in the name.

1.9.2.5 ENTITY AND LAYER COLORS

All Entities and Layers will have their color assigned to “bylayer”.

1.9.2.6 SYMBOLOGY

The symbols provided with this standard will be used whenever possible. If a new symbol is created, it will not have its colors assigned to “byblock”. To achieve multiple colors within a block, the creator will make use of multiple layers within the block definition.

1.9.2.7 TEXT STYLES AND HEIGHTS

It is understood that for presentation purposes a deviation from the standard text styles will occur. If third party fonts are used, those fonts must accompany the CAD file. Fonts that are not freely distributable or “shareware” are not to be used.

1.9.2.8 DIMENSION STYLES’

If new dimension styles are created for presentation purposes, the names of the styles will be appropriate for the type of dimension being created. Also, all Text Styles created for use within the dimension style will have the prefix “DIM_”.

1.9.3 STAGE I EXTERNAL REFERENCE FILES

As stated in **1.8.8 External Reference Files** and **1.8.9 External Reference Files (for Vault Only)** of this standard, “Overlays” and “Relative Paths” are to be used. And for Vault projects.

1.9.3.1 PLOT SETUP

All drawings will be plotted from paper space layout tabs as described in **1.9 Plot Setup** of this standard. The lead discipline is responsible for creating and making available page setups necessary for plotting. Further, any CTB files used other that those provided with this standard will accompany the CAD file. If used, the CTB created will have the PID prefixed to the file name.

1.9.3.2 PLAN SET PREPARATION

It is the responsibility of the lead discipline to prepare and distribute the border for the Stage I effort. Whenever possible the “ANSI” borders provided with this standard are to be used.

1.10 PLAN SET PREPARATION

1.10.1 AUTOCAD 2018 CONFIGURATION (PLOTTING BY LAYOUT)

AutoCAD 2018 options must be modified to insure proper placement of the Contract Border in the paper space layout environment.

To make the required modifications, right click within the drawing pane and select Options. From within the Options dialog, select the Display tab and make the changes shown in **Figure 1.10-1** to the "Layout Elements" portion of the tab and then select "OK".

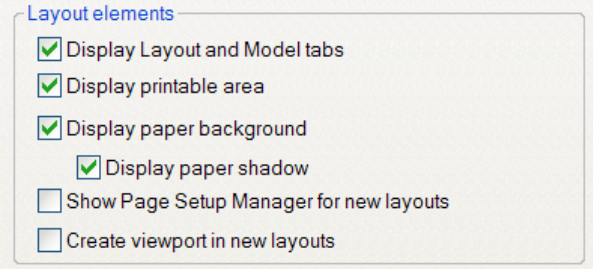


Figure 1.10-1

The Layout Elements settings that were changed affect the workstation and will not need to be reconfigured in future sessions.

1.10.2 PLAN SET TITLE SHEET

The term "Title Sheet" refers to the top most sheet of the plan set. The Title Sheet border has undergone an extensive review by the CAD Committee. The use of block attributes will insure consistency between contracts and improve the appearance of all contract sets. It is important to maintain the integrity of the Title Sheet; therefore, the Title Sheet is never to be exploded. Illustrations of the Title Sheets can be found in **1.25.1 Title Sheet**

1.10.2.1 TITLE SHEET CONFIGURATION

The Title Sheet border drawing has purposely been created in paper space. As a result, this border drawing cannot be inserted as a block or externally referenced into other drawing files. The process for defining a Title Sheet is as follows.

- Begin by opening the Title_Sheet.dwg file located at:
  - K:\Application\EAD\CAD_Standards\2018\All_Disciplines\Contract_Borders
- Once open, Save the drawing to the appropriate project sub-folder.
- Enter the appropriate values for each attribute provided in the Title Sheet.

1.10.2.2 ENTERING TITLE SHEET INFORMATION

Each Title Sheet drawing file provided with the standard has three signature lines defined. They are:

- Deputy Director Engineering / Design
- Program Director XX or Sr. Program Manager / Program Manager
- Chief Engineer

There are two possible options for the signature lines. Refer to **Error! Reference source not found.** and Table 1.10-B to identify which option to use based on your contract type and cost and to determine which Layers are to be turned off for each option.

Table 1.10-A

Contract Type	Engineer's Estimate	Title Sheet Signatures Required	Option to Use
M/WBE Contracts	Up to $1,000,000	Chief of Design, E/A Design Division Sr. Program Manager / Program Manager	Option 1
	Above to $1,000,000	Chief of Design, E/A Design Division Program Director Chief Engineer/Director	Option 2
Work Order Drawings and Standard Contracts	Up to $2,500,000	Chief of Design, E/A Design Division Sr. Program Manager / Program Manager	Option 1
	Above to $2,500,000	Chief of Design, E/A Design Division Program Director Chief Engineer/Director	Option 2

Table 1.10-B

Layer Name	Status for Option 1	Status for Option 2
GN-ANNO-TTLB-CHIF	OFF	ON
GN-ANNO-TTLB-PDIR	OFF	ON
GN-ANNO-TTLB-PMAN	ON	OFF

Under no circumstance will the Title Sheet border be exploded or modified. **Figure 1.10-2** shows the default Title Sheet provided with the EAD CAD Standard. The "WORK ORDER No." line has been turned off by default and layer GN-ANNO-TTLB-WRKO is to be turned on if a WORK ORDER No. needs to be entered.

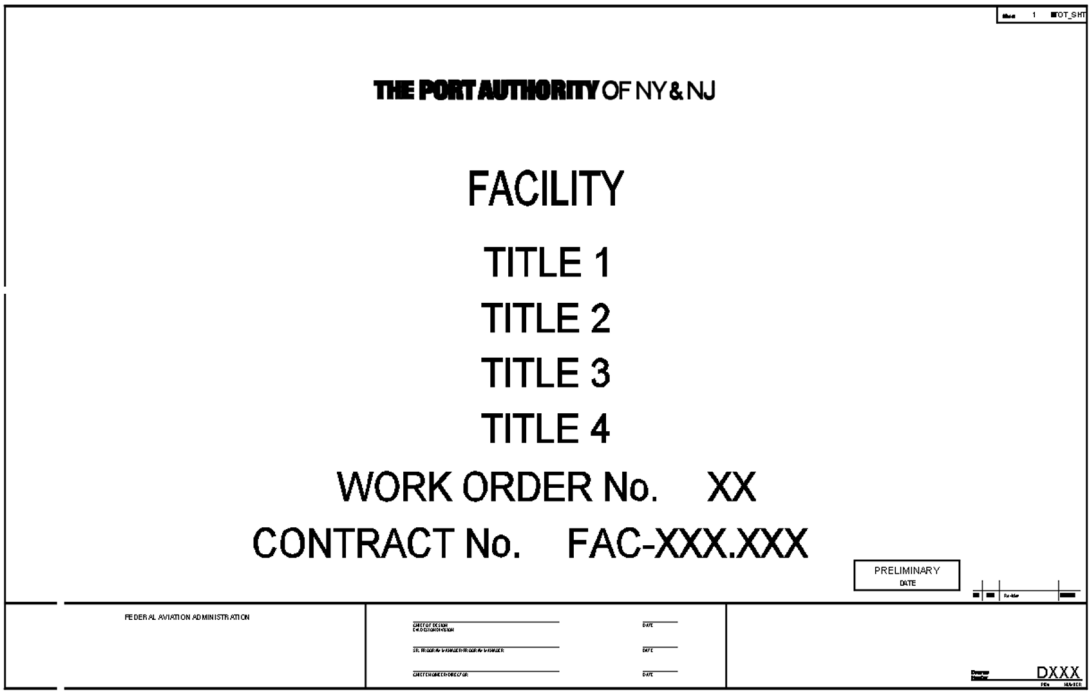


Figure 1.10-2

The “PROGRAM DIRECTOR” line contains an attribute, which by default is set to XX. The XX value is to be replaced with one of the following options:

- TB&T
- PORT COMMERCE
- AVIATION
- PATH
- SECURITY

Under the Contract Number the letters “FAC” are to be replaced with the appropriate Facility Code listed in **Table 1.6-A** and then followed by the Contract Number itself.

Multiple stamps have been provided within the Title Sheet and are to be turned off when necessary. The stamps provided and the layers on which they are stored are show in **Table 1.10-C**.

Table 1.10-C

Stamp	Layer Name
FAA	GN-ANNO-TTLB-FAA
Law Review	GN-ANNO-STMP-LAWR
Preliminary	GN-ANNO-STMP-PRLM
Submission	GN-ANNO-STMP-SUBM

1.10.2.3 USING THE REVISION BLOCK WITHIN THE TITLE SHEET

A revision block named "Drawing_Info – Stamp_Revision.dwg" has been provided with the EAD CAD Standard. When revisions are made, this block is to be inserted using an endpoint snap to the upper left corner of the previous revision line. **Figure 1.10-3** displays where the revision stamp is to be inserted. The stamp is located on the network at:

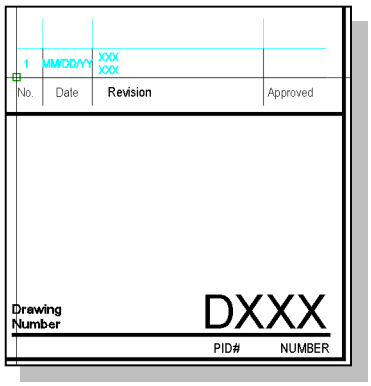


Figure 1.10-3

"K:\Application\EAD\CAD_Standards\2018\All_Disciplines\Contract_Borders\Stamps"

Once inserted the revision block will prompt the user for information pertaining to the revision. Under no circumstances will the revision block be exploded or modified.

1.10.2.4 PLOTTING THE TITLE SHEET

The layout for the Title Sheet will be configured to use one of the page setups supplied within this standard. As previously stated, outside consultants will need to configure the page setups for their own use and for the particular environment they are working in. After importing an appropriate page setup, the Title Sheet will be configured to plot by layout and use the PA-MasterFull.ctb plot style.

1.10.3 PLAN SET PLOT SHEETS

Plotsheet files are drawing files assembled as sheets for printing. These drawings consist only of external reference files and the items indicated below. No line work is permitted within Plotsheet drawings in either Model or Paper space with the following exceptions:

- North Arrows
- Graphic Scales
- Revision Clouds and Revision Cloud Text
- Match Lines and Match Line Text
- View Titles
- Blocks with the prefix "Drawing_Info"

All Plotsheet files shall make use of a relevant PANYNJ Graphic Scale symbol. Such a scale bar is critical for any party viewing the drawings to be able to verify distances within the drawing. Since these standardized symbols scale with the drawing, if the drawing is shrunken or enlarged, the scale remains a valid reference to compare drawing content against. In the absence of a such a scale bar, there is no way of telling whether the scale noted is accurate, and thus it is mandatory to include a standardized PANYNJ Graphic Scale, available through the PANYNJ CAD Standards website, on each Plotsheet drawing.

In order to comply with this standard, each project will have a single Contract Border that will be created by the Lead Discipline and will be stored in that discipline's PUBLISH folder. All other disciplines will externally

reference the border from the Lead Discipline's PUBLISH folder. This border will contain all information pertinent to the project itself. Once the Contract Border is properly referenced into each sheet the appropriate "Drawing_Information" block is to be inserted into each layout tab. The Drawing_Information block will contain all drawing specific information. Illustrations of the Contract Borders provided can be found in **1.25 Appendix K – Contract Borders and Title Sheets**.

Outside consultants are required to reproduce the folder structure as specified in **1.6 Project Directory Structure and File Naming Convention** by copying the Sample Project and replacing the Facility name and PID with those of the current project. All backgrounds (including the Contract Border) provided by the E/A Design Division will go into their respective discipline folders.

1.10.3.1 CONFIGURING THE CONTRACT BORDER

To create the project border, open the "Contract_Border.dwg" file provided with this standard fill in all attribute information requested and save it to your discipline's PUBLISH folder with the name following the format described in **1.6.5.2 Contract Border File**.

As with the Title Sheet, the "WORK ORDER No." line has been turned off by default and layer GN-ANNO-TTLB-WRKO is to be turned on if a WORK ORDER No. needs to be entered.

For a listing of Contract Border files that have been provided with this standard refer to **1.26 Appendix K – Distribution Files.**

1.10.3.2 REFERENCING THE CONTRACT BORDER

To create a Plotsheet file, begin by externally referencing the Contract Border that was configured in the previous section. The border is to be referenced into a paper space layout, that has been configured following the steps outlined in **1.9 Plot Setup**, with an insertion point of 0,0. Under no circumstances will the contract border be exploded, renamed or modified.

1.10.3.3 INSERTING THE DRAWING INFORMATION

Once the Contract Border has been externally referenced the "Drawing_Info.dwg" block will need to be inserted. This block will be inserted with an insertion point of 0,0 and all attribute information is to be filled out.

The "Drawing_Info.dwg" block contains a pair of lines that state "Original Signed By" and "Original Signee". These lines of text are stored on the layer GN-ANNO-TTLB-SIGN, which by default is turned off. The "Original_Signee" attribute field is to be filled in using the name of the person that signed the drawings. The layer this information is to be turned on when PDF files are created for any Stage of the drawings beyond signature. **Figure 1.10-4** and **Figure 1.10-5** display this text OFF and ON. Note, this attribute is only required for internal use and outside consultants need not turn on this layer. For information on the correct process for outside consultants refer to Using the Signature Stamps titled Using the Signature Stamps.

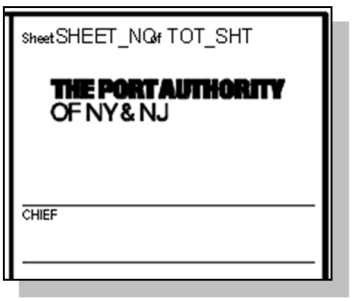


Figure 1.10-4

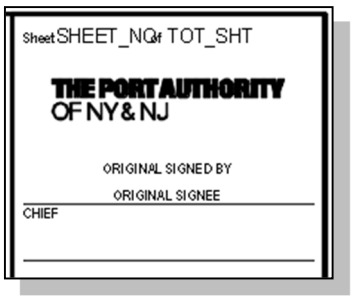


Figure 1.10-5

When entering the “Discipline Group” and “Discipline Sub-Group” attribute fields users will need to refer to Table 1.10-D for the proper values to be used within these fields.

Table 1.10-D

Discipline Group	Discipline Sub-Group
Architecture	
	Landscape
Civil	
Electrical	
	Power
	Electronics
	Corrosion Protection
Environmental	
General	
	Construction Staging
Geotechnical	
Mechanical	
	Fire Protection
	HVAC
	Plumbing
Structural	
Traffic	

To promote consistency and easy identification of the people involved in the project the Designed By, Drawn By and Checked By attribute fields are to be filled out using the first initial, followed by a period and then the first ten characters of the last name. Note that spaces before or after the period are not permitted.

For Example:

Filippo Brunelleschi would fill out the field as F.Brunellesc, truncating the last name at ten characters. Editing the Contract Border

The process used to create Contract Borders allows for flexibility in editing and updating information both at the project level as well as at the drawing level. If a project level change is required, then the PID-CB.dwg file can be opened and modified and if a drawing level change is required then the individual

drawing can be opened and modified. The benefit to working in this manner is that if a project level change is required only one drawing file needs to be edited and then the rest of the files will inherit the changes.

1.10.3.4 CREATING A VIEWPORT

Once the Contract Border has been externally referenced and the drawing information block has been inserted and filled out then a viewport must be created to display the drawing information that has been referenced into model space. When a viewport is created, it is to be placed on the appropriate layer for that discipline, typically <discipline>"-ANNO-VPRT". Once the viewport is created the zoom magnification or scale of the viewport must be set. All E/A Design Division files are created to be plotted with a scale of 1:1, which means that the viewports created will need to have a scale or magnification assigned to them. Once the viewport scale has been assigned and the drawing information has been centered within the view, the viewport display should be set to locked.

1.10.3.5 MAKING REVISIONS IN CONTRACT DRAWINGS

Two types of revisions can happen in a Contract Drawing Set: Partial Revisions and Additions. A partial revision is when only portions of the Contract Drawings have been changed and an Addition takes place when an additional Contract Drawing is added to the Drawing Set.

Regardless of the revision type, users will be required to place the "Drawing_Info – Stamp_Triangle.dwg" block in the drawing pane, near the revised entities. A revision cloud is also to be placed around the area that is being revised.

For Partial Revisions:

A Revision Cloud will be placed either in Model Space or in Paper Space surrounding just the area of the drawing where changes were made. The Stamp Triangle will be placed right next to the Revision Cloud including the Revision Number. The Revision Block will be inserted including the Revision Number as well as the Date, the Description and the Initials of the person that approved the changes.

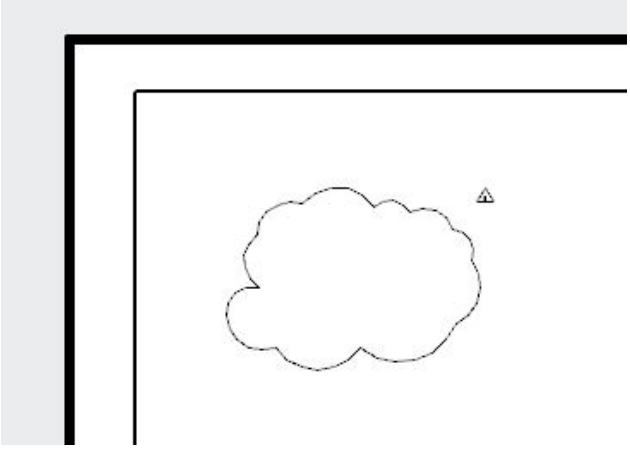


Figure 1.10-6

For Additions:

The entry for the Sheet in the Drawing Index will be bubbled with a Revision Cloud. The Revision Block will be inserted including the Revision Number as well as the Date, the Description and the Initials of the person who approved the changes. A new Contract Border shall be issued for the new drawing, showing the date of issue in the lower right-hand corner, and its file name shall have the date of issue appended to it, in the form, "-DD_MM_YY". Lastly, the sheet counter text "Sheet _ of _", displayed on the new drawing, must reflect the location of the new sheet and total number of sheets in the set.

Figure 1.10-7

Note that for any drawings that are added within a series (as opposed to the end of the series), all drawings following the inserted drawing must be renumbered correctly so that drawing numbers remain unique. Any drawings that have had their drawing number changed as a result of the addition of a drawing within a series must have the drawing number bubbled on the Sheet itself as well as in the Drawing Index, since the corresponding entry for the drawing shall be modified. When a drawing is removed from the contract set, the Drawing Index will also have the drawing name removed.

The following section introduces the procedure for inserting the Revision Block within the Contract Border area. Every Revision Triangle inserted into a Plotsheet requires a corresponding Revision Block to be inserted following the procedure described.

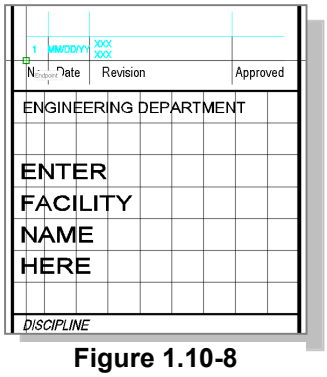


Figure 1.10-8

1.10.3.6 USING THE REVISION BLOCK WITH THE CONTRACT BORDER

A revision block named "Drawing_Info – Stamp_Revision.dwg" has been provided with the EAD CAD Standard. When revisions are made, this block is to be inserted using an endpoint snap to the upper left corner of the previous revision line. **Figure 1.10-8** displays where the revision stamp is to be inserted. The stamp is located on the network at:

K:\Application\EAD\CAD_Standards\2018\All_Disciplines\Contract_Borders\Stamps

Once inserted the revision block will prompt the user for information pertaining to the revision. Under no circumstances will the revision block be exploded or modified.

A revision cloud is to be placed around the area of revision whenever a revision is made. In the case of an entirely new sheet, no revision cloud is to be placed on the drawing itself, but the entry for the drawing on the Drawing Index Sheet should be bubbled. Also, note that when an entirely new sheet is added to the set as a revision, the date of the sheet should be the date of the revision, not the original signature date (a revision note is still required on the new sheet).

1.10.3.7 USING THE SUBMISSION STAMPS

Submission stamps have been provided for both the Contract Border and Contract Border – OS (oversize) sheets and can be found at:

K:\Application\EAD\CAD_Standards\2018\All_Disciplines\Contract_Borders\Stamps

The submission stamps will be inserted as blocks within the Contract Border with an insertion point of 0,0. The following submission types have stamps provided with this standard:

- Law-Review
- Preliminary
- QA-Submission
- Percent Submission

Figure 1.10-9 displays how each of the four submission stamp types appear on the Contract Border.

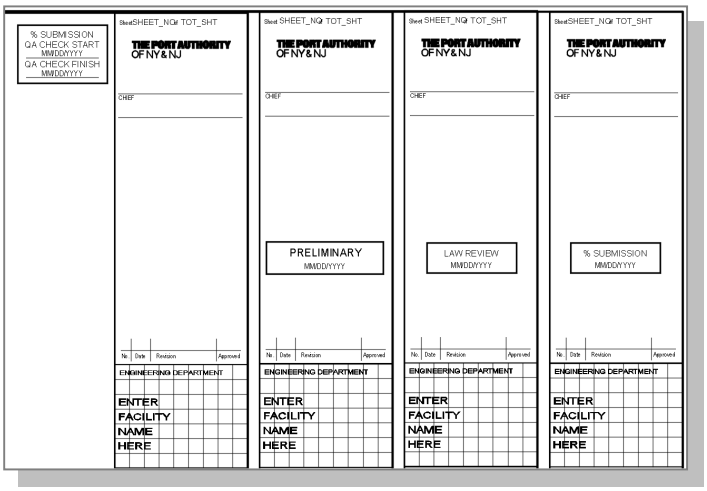


Figure 1.10-9

1.10.3.8 USING THE SIGNATURE STAMPS

Signature stamps have been provided for both the New York and New Jersey Professional Engineer and Registered Architect and are to be used by outside consultants in-lieu of Consultant Logos. The word "Drawing_Info – Stamp_" has been prefixed at the beginning of each stamp to indicate that these stamps are to be placed within the individual layout tabs and not directly into the Contract Border file. The signature stamps provided within this standard are located at:

K:\Application\EAD\CAD_Standards\2018\All_Disciplines\Contract_Borders\Stamps

The use of the Signature stamps by outside consultants will require that the GN-ANNO-TTLB-PANU layer be turned off. This layer contains the signature lines for the in-house staff and is not needed when outside consultants are signing the sheets.

Signature stamps are to be inserted with an insertion point of 0,0 and are required to have all appropriate attribute fields filled in. The stamp is dynamic and has visibility states. It should be inserted and then edited. Note that when filling in the Consultant company information only the company name and address is to appear, not the logo. If a sub-consultant is used, then the primary consultant will fill in their company name using the first NJPE Consultant and the second NJPE Consultant attribute fields and the sub-consultant will fill in their company name using the Sub-Consultant1 and Sub-Consultant2 attribute fields. Bi-State drawing information stamps are provided and should be used when it's appropriate.

On the left side of **Figure 1.10-10** the Contract Border with the GN-ANNO-TTLB-PANU layer for in-house use turned on is displayed and on the right side of **Figure 1.10-10** the Contract Border with that layer turned off and a signature stamp inserted is displayed.

The seal for the Architectural and/or Engineering firm should be shaded or stamped in the open space under the NJ/NY PE/RA consulting firm name.

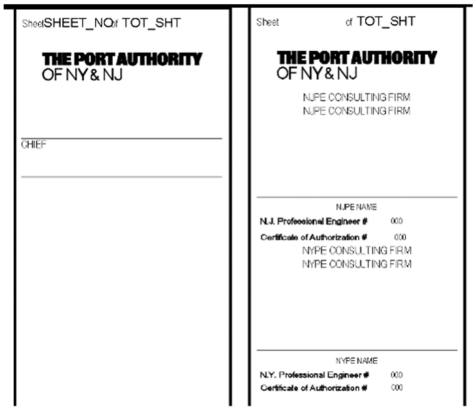


Figure 1.10-10

1.10.3.9 USING THE CONFIDENTIAL PRIVILEGED STAMPS

Confidential Privileged Stamps have been provided for both, the Contract Border and Contract Border - OS (oversize version). The word “Drawing-Info - Stamp_” has been prefixed at the beginning of each Stamp to differentiate them from the Submission Stamps. The Confidential Privileged Stamps are to be inserted as blocks with an insertion point of 0,0 on each individual sheet unless the entire project is considered Confidential and Privileged, in which case the stamps can be placed within the Contract Border. The Confidential Privileged Stamps provided with this standard are located at:

K:\Application\EAD\CAD_Standards\2018\All_Disciplines\Contract_Borders\Stamps

Figure 1.10-11 illustrates a Contract Border with a Confidential Privileged Stamp (Drawing_Info - Stamp_CPbar.dwg) inserted.

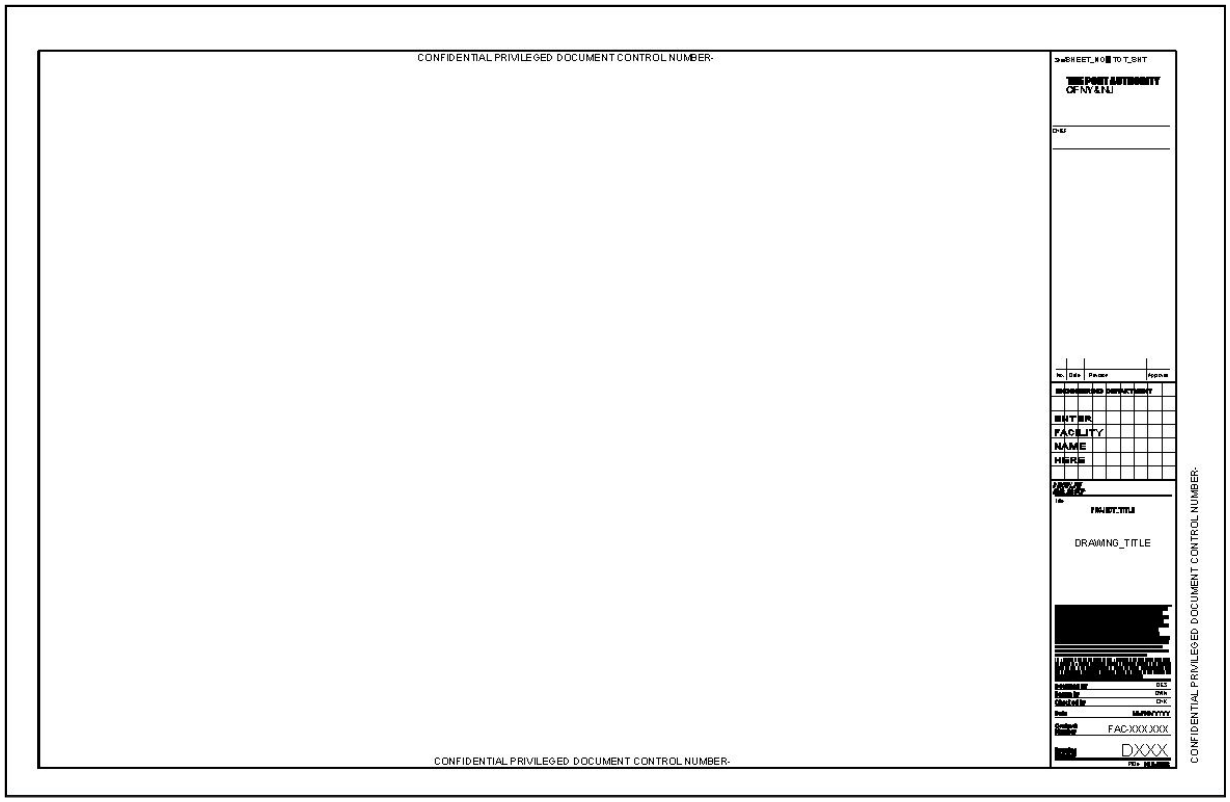


Figure 1.10-11

1.11 SPECIAL PROJECTS

Special Projects are those in which unique circumstances may require different guidelines be followed in order to comply with the EAD CAD Standards. The contents of this section will be followed in addition to the ones already specified in previous sections, unless specifically instructed otherwise within this section.

1.11.1 CONFIDENTIAL PROJECTS

Confidential Projects contain highly sensitive information that if lost or made public could seriously damage or compromise the Port Authority and/or public safety and security. Confidential information includes, but is not limited to, methods utilized to mitigate vulnerabilities and threats, such as identity, location, design construction and fabrication of security systems.

For that reason, if aspects being worked on as part of a project drawing are considered Confidential they will need to be handled differently than standard contract drawings.

If information on a drawing is considered to be Confidential, then that model drawing is to be stored in the Model_C folder. Any plotsheet drawing that contains Confidential information must be stored in the Plotsheets_C folder. It is permitted to reference non-Confidential information from outside the Confidential folder into a Confidential plotsheet drawing. If a model file that has been deemed Confidential needs to be shared across disciplines, then the file is to be copied to the Publish_C folder.

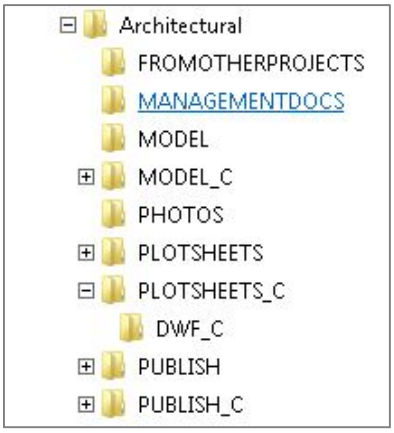


Figure 1.11-1

If a project contains any Confidential sheets then the Confidential Information Warning Sign (CP - WARNING.dwg) must be displayed on the Title Sheet and Drawing Index sheet(s) of the project, along with markings at the top, bottom and right side of the pages identifying the project as Confidential. This is accomplished by turning on and thawing the "GN-ANNO-TTLB-CONF" layer. The Warning Sign is displayed below in **Figure 1.11-2**. The Warning Sign Stamp should not be placed on the rest of the drawings in the document.

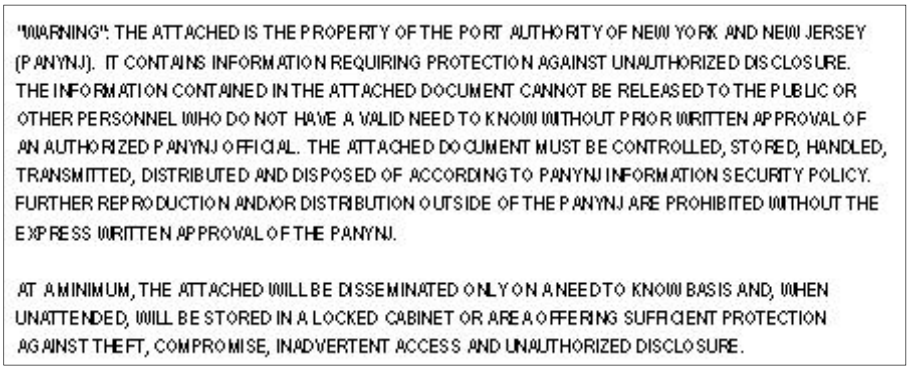


Figure 1.11-2

All interior Confidential pages within the set must also be marked Confidential at the top, bottom and right side of the page. Sets of documents that are folded or rolled must be marked so that the marking is visible on the outside of the set once folded or rolled. This is accomplished by inserting the "Drawing_Info – Stamp_Cbar.dwg" block into paper space of the Plotsheet drawing containing the Confidential information. The "Drawing_Info – Stamp_Cbar.dwg" block is to be inserted with an insertion point of 0,0,0 on layer 0 and is not to be exploded or modified in any way. All of the Confidential Markings are displayed in **Figure 1.11-3** and **Figure 1.11-4**.

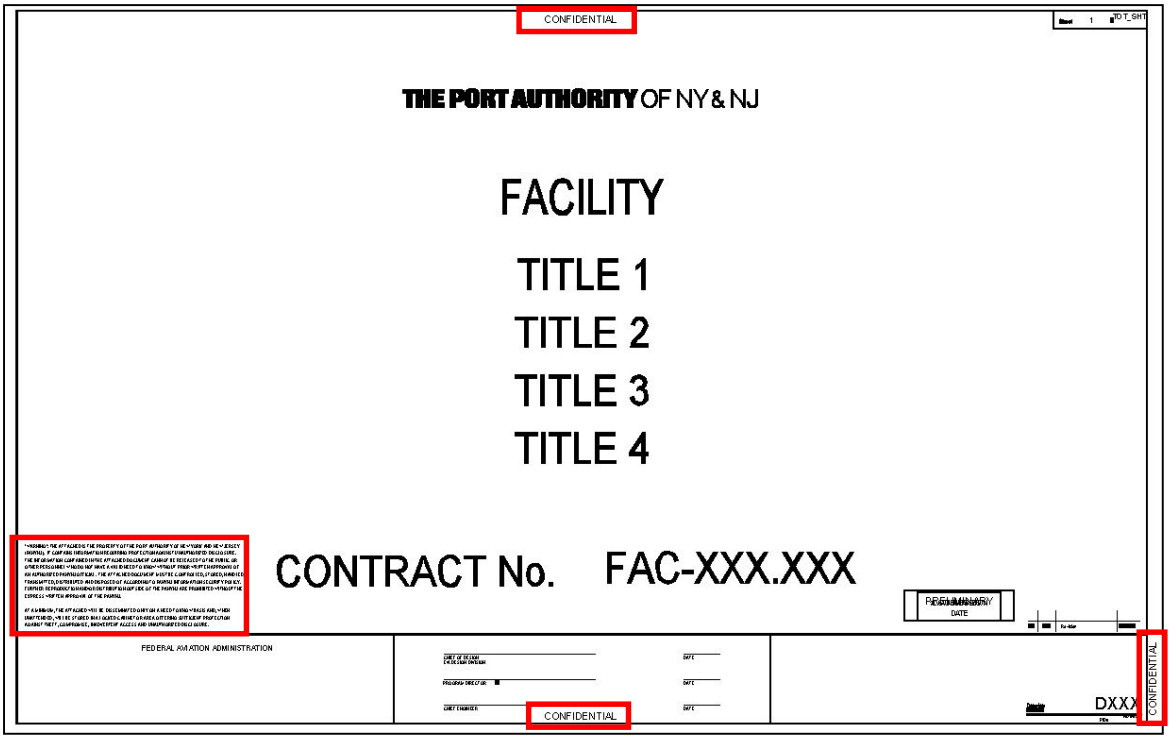
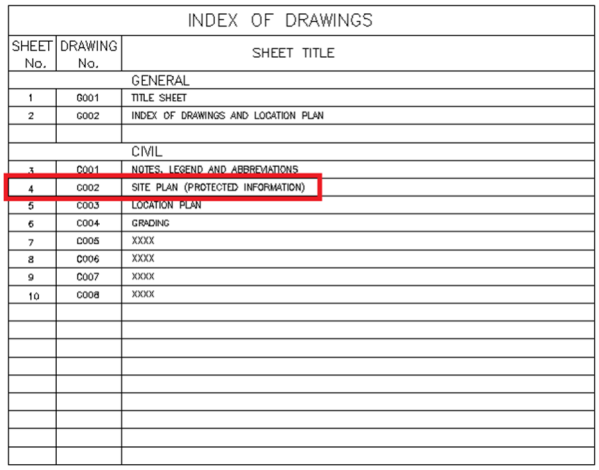


Figure 1.11-3

Figure 1.11-4

On the Drawing Index sheet, names of Confidential drawings that are separated out of the main drawing set should be listed to inform the viewer that additional drawings are available and should take the form "<Drawing Title> (Protected Information)", where <Drawing Title> is the title of a Confidential drawing, as shown in **Figure 1.11-5** below.



INDEX OF DRAWINGS

SHEET No.	DRAWING No.	SHEET TITLE
		GENERAL
1	G001	TITLE SHEET
2	G002	INDEX OF DRAWINGS AND LOCATION PLAN
		CIVIL
3	C001	NOTES, LEGEND AND ABBREVIATIONS
4	C002	SITE PLAN (PROTECTED INFORMATION)
5	C003	LOCATION PLAN
6	C004	GRADING
7	C005	XXXX
8	C006	XXXX
9	C007	XXXX
10	C008	XXXX

Figure 1.11-5

For more information on the handling and submitting of Confidential projects refer to “The Port Authority of New York & New Jersey Information Security Handbook”.

1.12 CAD Standards Review Report

In an effort to improve the usage of the EAD CAD Standard, the CAD Support Group has developed a form called the CAD Standards Review Report, which allows for the rating of CAD Standards compliance on every project worked on by each discipline. CAD Standards reviews are applicable to all projects, in-house and/or consultant that are issued either for construction contracts or work orders.

1.12.1 Interim CAD Review

- Review is mandatory for:
  - Contract drawings prepared by one discipline and sets consisting of more than 25 sheets.
  - Contract drawings prepared by two or more disciplines and sets consisting of more than 15 sheets.
- Requirements
  - Timeframe: Required at 50% milestone or as determined by the LEA if no official interim milestone prior to the 100% submission
  - Initiated by the LEA via EOL request form
- Report is issued to the Assistant Chiefs, Principals, LEA and Task Leaders.

1.12.2 CONSTRUCTION CONTRACT PA WIDE CAD REVIEW

- Review is mandatory for all Contract Drawings
  - Initial failures are issued to the LEA and Task Leaders
    - 3 weeks are provided for the correction of the files
  - At the end of the 3-week period a Report is issued to the Assistant Chiefs, Principals, LEA and Task Leaders
  - During the PA Wide Review drawings will be analyzed and a FINAL pass/fail Report will be issued.
    - Drawings will not be reviewed after the PA Wide Review period.
- Requirements
  - Timeframe: Required at the on-set of PA Wide Review
  - Initiated by the LEA via EOL request form
    - Upon receipt of the request the CAD Support Group is to upload the files to Live Link for electronic review and notify the Contract Engineer of the initiation of PA Wide Review.
- Final Report is issued the Assistant Chiefs, Principals, LEA and Task Leaders

1.12.3 WORK ORDER CAD REVIEW

- Review is mandatory for:
  - Mandatory for all Contract Drawings.
  - Initial failures are issued to the LEA and Task Leaders
    - 3 weeks are provided for the correction of the files
  - At the end of the 3 weeks a Report is issued to the Assistant Chiefs, Principals, LEA and Task Leaders
- Requirements
  - Initiated by the LEA via EOL request form
- Report is issued to the Assistant Chiefs, Principals, LEA and Task Leaders at the end of the 3-week period.

The CAD Standards Review Report is divided into 3 section; the first section contains all the Mandatory Fields for which compliance with EAD CAD Standards is required in order for the project to pass, the second section contains all the Non-Mandatory Fields followed by a third section that includes notes and comments pertaining to the review. Items included within this Report are:

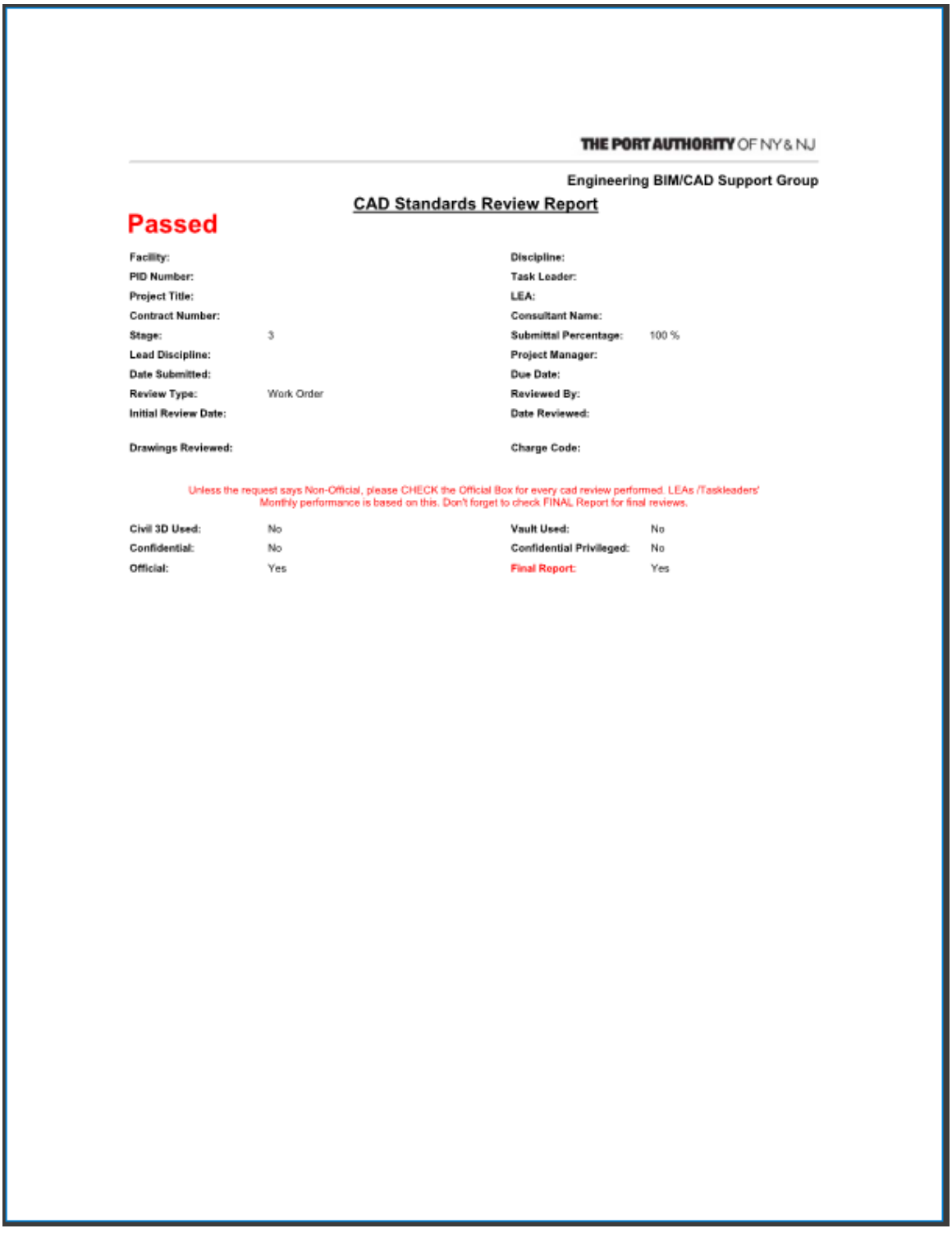
- File Availability, Filename and Folder Structure
  - Project drawings, PDF's and files referenced within them must be named according to the EAD CAD Standard and must be located within the sub-folders defined in this standard.
- Plan Set Preparation
  - The Discipline/Sub-Group must be included. All External Referenced files and\or images shall be contained within the PID Folder Structure. The Title Sheet, Contract Border and Drawing Information block along with the Professional Stamps provided within the EAD CAD Standard shall be used without any modifications and/or alterations.
- CAD Practice
  - The layers provided within the EAD CAD Standard must be used in all drawing files. These layers are pre-configured to work in conjunction with each discipline's pen settings (CTB). All External Referenced files and\or images shall be set as "Overlay" and "Relative Pathing". Note: Existing Background layers are not reviewed.
- Plot Setup
  - Drawings must be prepared using the PA-MasterFull.ctb file (pen settings). This will ensure consistency of plotting drawings from any workstation within Engineering.
- Submittals Information
  - PDF files are required at each submittal. They are to be created in full size, multi-sheet and grouped together by Plotsheet Type and Series (if used).
- Civil 3D Objects Files (Civil Only)

  Surfaces, alignments and profiles should be, but is not limited to, referenced into civil design files with data shortcuts. The Civil 3D Data shortcut folder must be available for archiving and located within the Model Folder. Data Shortcuts are essential for linking data to drawing objects. Port Authority surfaces must be created with data collected and approved by the Port Authority. Points and or contours should be imported and used with the proper surface guidelines and the CAD standard naming scheme should be applied. Alignments provided to the Port Authority should use the Port Authority approved styles. Alignments should not be polylines representing alignments and must contain features related to this object. Profiles should be created using the Port Authority issued styles. When Alignments are used profiles should also be provided. Profiles are not applicable yet.

This form will be reviewed on a regular basis and is subject to changes. If a change is approved, it will be posted on the E/A Design Division CAD Standard website http://www.panynj.gov/business-opportunities/engineering-documents-bim-cad-standards.html and incorporated into the next revision of this document.

The following two pages illustrate the first two sections of the CAD Standards Review Report and are to be used as a checklist for checking CAD Standard compliance prior to submitting drawings. (See **Figure 1.12-1 and Figure 1.12-2)**

Project information Items



THE PORT AUTHORITY OF NY & NJ

Engineering BIM/CAD Support Group

CAD Standards Review Report

Passed

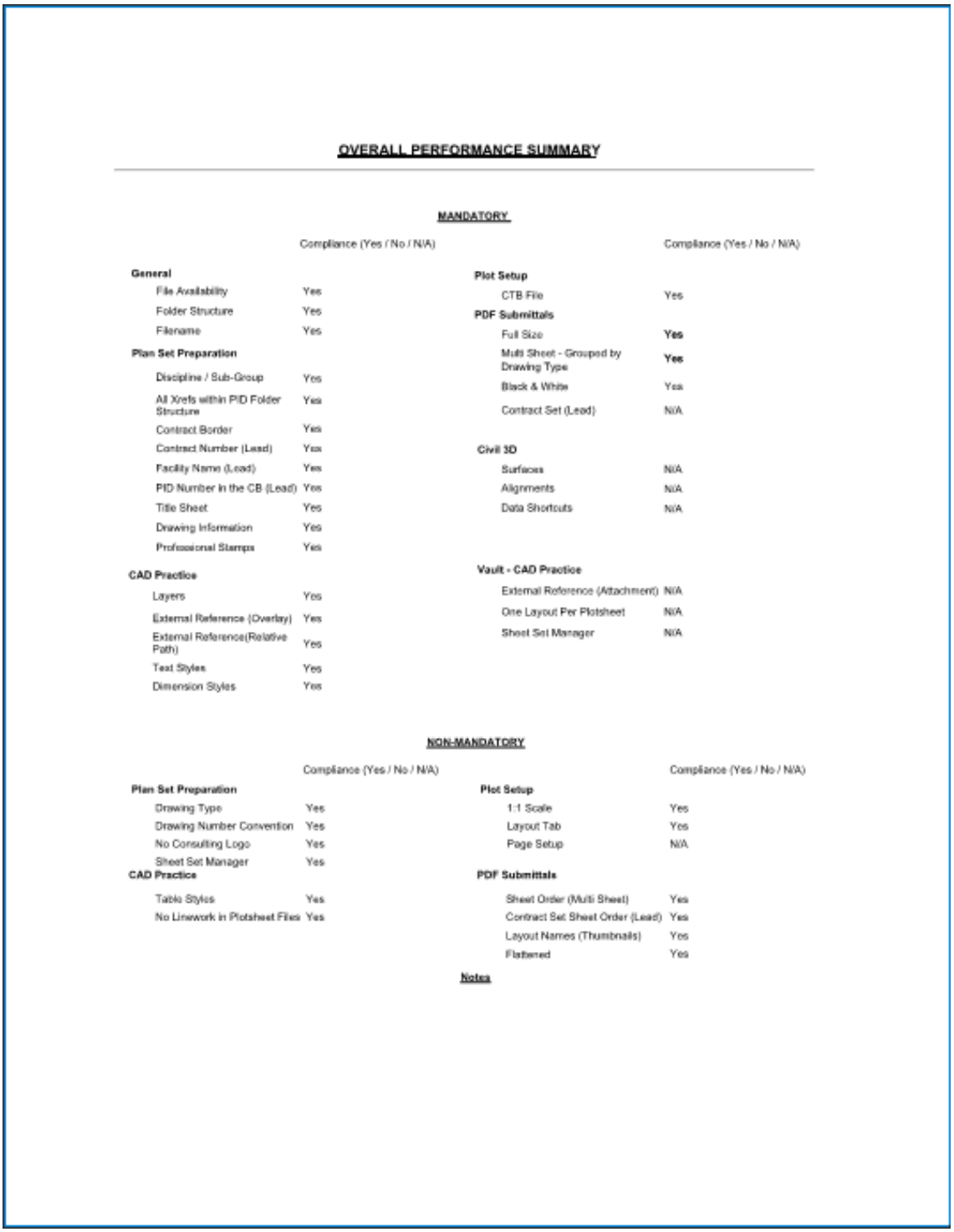
Facility:		Discipline:	
PID Number:		Task Leader:	
Project Title:		LEA:	
Contract Number:		Consultant Name:	
Stage:	3	Submittal Percentage:	100 %
Lead Discipline:		Project Manager:	
Date Submitted:		Due Date:	
Review Type:	Work Order	Reviewed By:	
Initial Review Date:		Date Reviewed:	
Drawings Reviewed:		Charge Code:	

Unless the request says Non-Official, please CHECK the Official Box for every cad review performed. LEAs /Taskleaders' Monthly performance is based on this. Don't forget to check FINAL Report for final reviews.

Civil 3D Used:	No	Vault Used:	No
Confidential:	No	Confidential Privileged:	No
Official:	Yes	Final Report:	Yes

Figure 1.12-1

Mandatory and Non-Mandatory Items



OVERALL PERFORMANCE SUMMARY

MANDATORY

	Compliance (Yes / No / N/A)		Compliance (Yes / No / N/A)
General		**Plot Setup**	
File Availability	Yes	CTB File	Yes
Folder Structure	Yes	**PDF Submittals**	
Filename	Yes	Full Size	**Yes**
Plan Set Preparation		Multi Sheet - Grouped by Drawing Type	**Yes**
Discipline / Sub-Group	Yes	Black & White	Yes
All Xrefs within PID Folder Structure	Yes	Contract Set (Lead)	N/A
Contract Border	Yes		
Contract Number (Lead)	Yes	**Civil 3D**	
Facility Name (Lead)	Yes	Surfaces	N/A
PID Number in the CB (Lead)	Yes	Alignments	N/A
Title Sheet	Yes	Data Shortcuts	N/A
Drawing Information	Yes		
Professional Stamps	Yes		
CAD Practice		**Vault - CAD Practice**	
Layers	Yes	External Reference (Attachment)	N/A
External Reference (Overlay)	Yes	One Layout Per Plotsheet	N/A
External Reference(Relative Path)	Yes	Sheet Set Manager	N/A
Text Styles	Yes		
Dimension Styles	Yes		

NON-MANDATORY

	Compliance (Yes / No / N/A)		Compliance (Yes / No / N/A)
Plan Set Preparation		**Plot Setup**	
Drawing Type	Yes	1:1 Scale	Yes
Drawing Number Convention	Yes	Layout Tab	Yes
No Consulting Logo	Yes	Page Setup	N/A
Sheet Set Manager	Yes		
CAD Practice		**PDF Submittals**	
Table Styles	Yes	Sheet Order (Multi Sheet)	Yes
No Linework in Plotsheet Files	Yes	Contract Set Sheet Order (Lead)	Yes
		Layout Names (Thumbnails)	Yes
		Flattened	Yes

Notes

Figure 1.12-2

1.12.4 CONFIDENTIAL PRIVILEGED PROJECTS

Confidential Privileged Projects contain extremely sensitive security or public safety information that if lost or made public could seriously damage or compromise the Port Authority and/or public safety and security. Confidential Privileged information includes, but is not limited to, any information identifying vulnerabilities, capabilities, threats, operational methodologies and/or security related design criteria.

For that reason, if aspects being worked on as part of a project drawing are considered Confidential Privileged they will need to be handled differently than standard contract drawings.

If information on a drawing is considered to be Confidential Privileged, then that model drawing is to be stored in the Model_CP folder. Any plotsheet drawing that contains Confidential Privileged information must be stored in the Plotsheets_CP folder. It is permitted to reference non-Confidential information from outside the CP folder into a Confidential Privileged plotsheet drawing. If a model file that has been deemed Confidential Privileged needs to be shared across disciplines, then the file is to be copied to the Publish_CP folder.

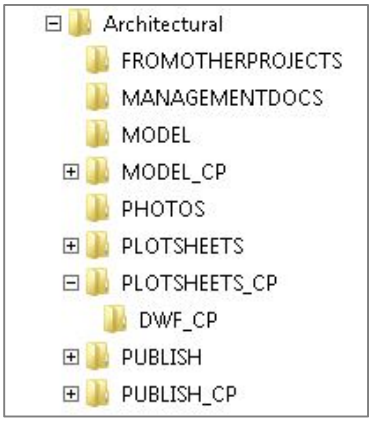


Figure 1.12-3

If a project contains any Confidential Privileged sheets then they must be separated out from the others into their own set, with its own Title Sheet. The Confidential Information Warning Sign (CP - WARNING.dwg) must be displayed on the Title Sheet and Drawing Index sheet(s) of the Confidential Privileged set, along with markings at the top, bottom and right side of the page identifying the project as Confidential Privileged. This is accomplished by turning on and thawing the “GN-ANNO-TTLB-CP__” layer. The Warning Sign is displayed in **Figure 1.11-2**.

All interior pages within the set must also be marked at the top, bottom and right side of the page. Sets of documents that are folded or rolled must be marked so that the marking is visible on the outside of the set once folded or rolled. This is accomplished by inserting the “Drawing_Info – Stamp_CPbar.dwg” block into paper space of the Plotsheet drawing containing the Confidential Privileged information. The “Drawing_Info – Stamp_CPbar.dwg” block is to be inserted with an insertion point of 0,0,0 on layer 0 and is not to be exploded or modified in any way.

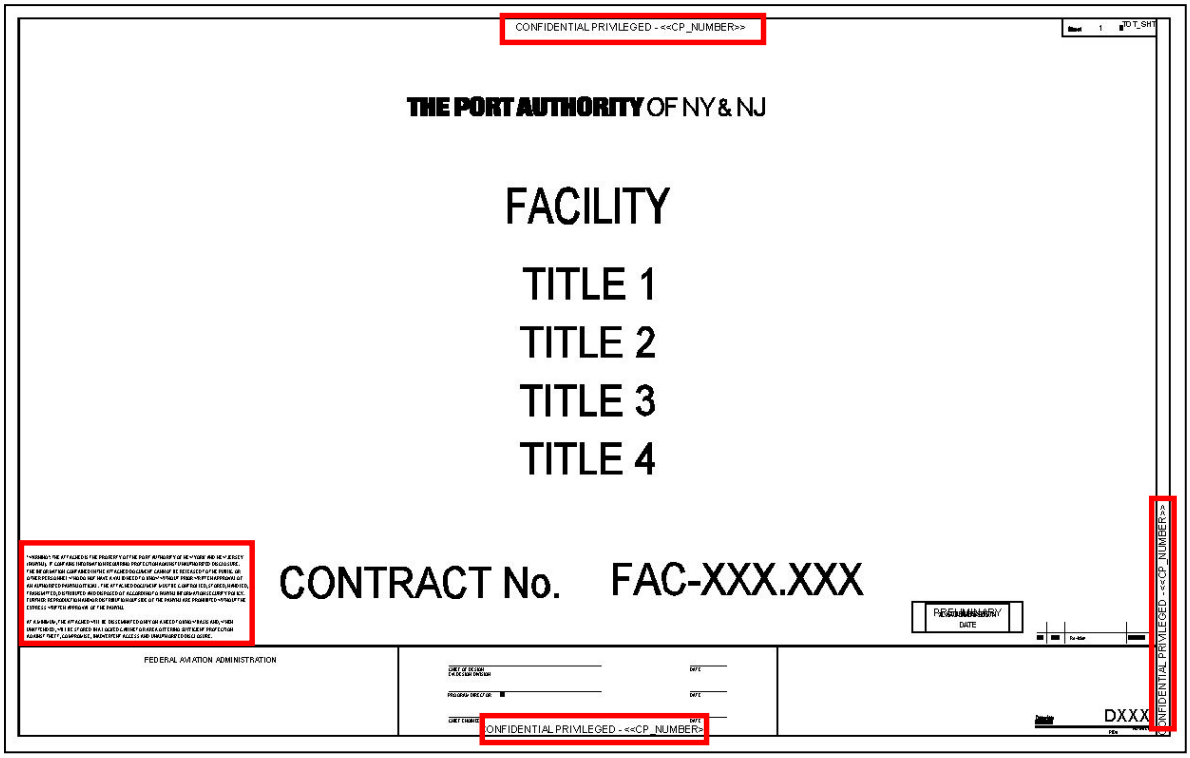


Figure 1.12-4

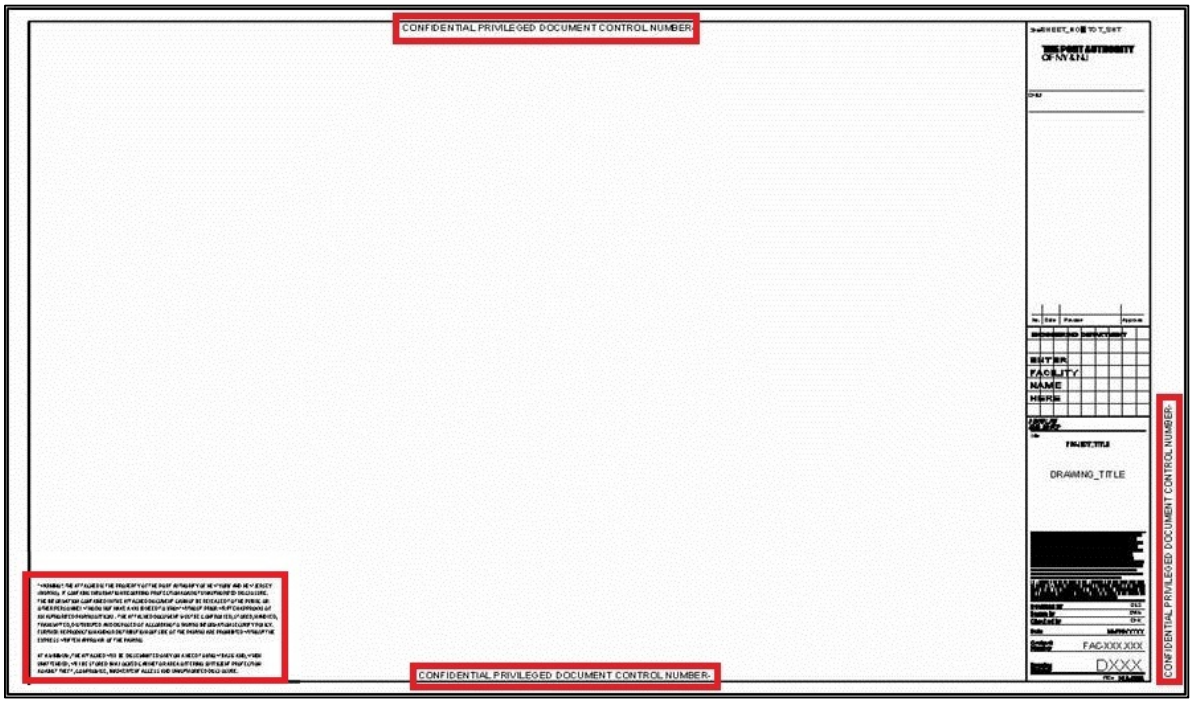


Figure 1.12-5

Projects identified as Confidential Privileged are assigned a Confidential Privileged Document Control Number. This number is to appear on the top, bottom and right side of each printed sheet next to the Confidential Privileged markings and is also stored on the GN-ANNO-TTLB-CP__ layer for title sheets and within the “Drawing_Info – Stamp_CPbar.dwg” block. All of the Confidential Privileged Markings are displayed in **Figure 1.12-4** and **Figure 1.12-5**.

On the Drawing Index sheet, names of Confidential Privileged drawings that are separated out of the main drawing set should be listed to inform the viewer that additional drawings are available and should take the form "<Drawing Title> (Protected Information)", where <Drawing Title> is the title of a Confidential Privileged drawing as shown in **Figure 1.12-5**.

For more information on the Document Control Number and the handling and submitting of Confidential Privileged projects refer to “The Port Authority of New York & New Jersey Information Security Handbook”.

1.13 Update and Revision Procedures

The dynamic nature of CAD technology and the engineering process dictates that this document will change over time. Changes to this document will be made by following strict procedures and guidelines.

Changes may be made based on errors and omissions, as well as to enhance or update the standards based on changes in the CAD environment. All requested changes to this document must be accompanied by a Request to Change Standard form provided in **1.28 Appendix M – Request to Change Standard**. The Request to Change Standard form must be provided to the CAD Support Group. All Request to Change Standard forms will be reviewed on a periodic basis. If the change is approved, it will be incorporated into the next draft of this document and all support files will be modified.

Updates to this document and the related support files will be made as required. Updates will be posted on http://www.panynj-cadstandards.com/

1.14 Contact and Support Information

Questions regarding the standards provided within this document should be directed to the CAD Support Group at: 212-435-6102 or engcadd@panynj.gov

1.15 Conclusion

This document is a comprehensive standard for the creation of contract drawings for the PANYNJ, E/A Design Division. All drawings submitted to the E/A Design Division must adhere to the conventions documented here. The CAD Support Group will use automated procedures to verify compliance with this standard.

1.16 APPENDIX A – ARCHITECTURAL DISCIPLINE

1.16.1 CONTENT PREFERENCES

1.16.2 LAYER STRATAGEM

1.16.2.1 ARCHITECTURAL WORK

DISCIPLINE	MAJOR	MINOR	DESC	COLOR	LINETYPE	PLOTS	DESCRIPTION
A	ANNO	BUS_		5	Continuous	Yes	BUSES
A	ANNO	BREK		5	Continuous	Yes	BREAK LINE
A	ANNO	CARS		46	Continuous	Yes	CARS
A	ANNO	CHNG		51	DIVIDE4	Yes	IDENTIFICATION OF UPDATED WORK
A	ANNO	CLIN		46	CENTER5	Yes	GENERAL PLAN/ELEVATION/SECTION CENTERLINE
A	ANNO	COLS	BUBL	4	Continuous	Yes	COLUMN CENTERLINE IDENTIFICATION
A	ANNO	COLS	CLIN	46	CENTER5	Yes	COLUMN CENTERLINE EXTENSION USED WITH NOTES
A	ANNO	DETL	BUBL	255	DASHED5	Yes	DETAIL BUBBLE OUTLINE (Indicate blow-up or detail)
A	ANNO	DIMS		1	Continuous	Yes	DIMENSIONS
A	ANNO	DIMS	GUID	5	DOT8	Yes	DIMENSION GUIDE LINE
A	ANNO	ELEV	FFLR	1	Continuous	Yes	SPOT ELEVATION SYMBOL (or block insertion layer)
A	ANNO	ELEV	GUID	1	DOT8	Yes	VERTICAL ELEVATION SYMBOL LINE
A	ANNO	ELEV	VERT	1	Continuous	Yes	VERTICAL ELEVATION SYMBOL ON SECTION/ELEVATION
A	ANNO	IDEN	DETL	3	Continuous	Yes	DETAIL SYMBOL AND EXTENSION LINE TO BUBBLE
A	ANNO	IDEN	DOOR	1	Continuous	Yes	DOOR NUMBER SYMBOL; HARDWARE GROUP ETC.
A	ANNO	IDEN	ELEV	3	Continuous	Yes	ELEVATION SYMBOL (or block insertion layer)
A	ANNO	IDEN	FURN	1	Continuous	Yes	FURNITURE IDENTIFICATION SYMBOL
A	ANNO	IDEN	GLAZ	1	Continuous	Yes	WINDOW NUMBER SYMBOL BLOCK INSERTION LAYER
A	ANNO	IDEN	ROOM	1	Continuous	Yes	ROOM IDENTIFICATION (SHOWN AS A BLOCK)
A	ANNO	IDEN	SCUT	3	Continuous	Yes	SECTION CUT SYMBOL (or block insertion layer)
A	ANNO	IDEN	WALL	1	Continuous	Yes	PARTITION TYPE IDENTIFICATION SYMBOL
A	ANNO	LGND		212	Continuous	Yes	LEGENDS AND SYMBOLS ASSOCIATED WITH LEGENDS
A	ANNO	LGND	DISC	1	Continuous	Yes	LEGEND DISCLAIMER
A	ANNO	MLIN		4	DIVIDE2	Yes	MATCH LINE
A	ANNO	NOTE		212	Continuous	Yes	BLOCKS OF MISCELLANEOUS NOTES; BOILER PLATE NOTES AND FRAMES
A	ANNO	PEOP		46	Continuous	Yes	PEOPLE, PEDESTRIANS etc.
A	ANNO	REDL		10	Continuous	Yes	REDLINE
A	ANNO	SCUT	GUID	212	DOT8	Yes	SECTION CUT LINE CONNECTING SECTION HEAD AND TAIL
A	ANNO	SYMB	AROW	5	Continuous	Yes	DIRECTIONAL ARROW
A	ANNO	SYMB	MISC	3	Continuous	Yes	MISCELLANEOUS SYMBOLS
A	ANNO	SYMB	NPLT	200	Continuous	No	MISCELLANEOUS SYMBOLS- NOT PLOTTED
A	ANNO	SYMB	NRTH	5	Continuous	Yes	NORTH ARROW
A	ANNO	SYMB	SCLE	1	Continuous	Yes	SCALE BAR
A	ANNO	TEXT		212	Continuous	Yes	TEXT (Generated by Leader; Quick Leader or Multi-Leader)
A	ANNO	TEXT	CLL_	1	Continuous	Yes	CONTRACT LIMIT LINE TEXT
A	ANNO	TEXT	DATE	5	Continuous	Yes	PRESENTATION DATE
A	ANNO	TEXT	LEDR	5	Continuous	Yes	TEXT LEADER LINE (if drawn separately)
A	ANNO	TEXT	MISC	5	Continuous	Yes	SECONDARY TEXT
A	ANNO	TEXT	MLIN	5	Continuous	Yes	MATCH LINE TEXT

A	ANNO	TEXT	PROP	1	Continuous	Yes	PROPERTY LINE TEXT
A	ANNO	TEXT	ROWL	212	Continuous	Yes	RIGHT OF WAY TEXT
A	ANNO	TEXT	STRE	46	Continuous	Yes	STREET NAME TEXT
A	ANNO	TRAN		46	Continuous	Yes	TRAINS, SUBWAYS & MONORAILS
A	ANNO	TRUK		46	Continuous	Yes	TRUCKS
A	ANNO	TTLB		51	Continuous	Yes	DRAWING TITLE WITH SCALE BAR
A	ANNO	TTLB	PRES	5	Continuous	Yes	DRAWING TITLE ON PRESENTATION BORDER
A	ANNO	VPRT		200	Continuous	Yes	VIEW PORT
A	REFN	AREA	OTLN	255	DASHED4	Yes	AREA CALCULATION BOUNDARY LINES
A	REFN	AREA	TEXT	6	Continuous	Yes	AREA CALCULATION, ROOM NUMBER, TENANT IDENTIFICATION NUMBERS (Shown As Text)
A	CLNG			1	Continuous	Yes	CEILING GRID - TILE PATTERN
A	CLNG	BEAM		5	Continuous	Yes	STEEL BEAM IN RCP PLANS
A	CLNG	LGHT		1	Continuous	Yes	LIGHT FIXTURES or block insertion layer
A	CLNG	OPNG		1	Continuous	Yes	CEILING/ROOF PENETRATIONS
A	CLNG	OVHG		5	Continuous	Yes	OVERHANG OUT-LINE SHOWN ON REFLECTED CEILING PLAN (Only)
A	CLNG	RDFF		1	Continuous	Yes	RETURN AIR DIFFUSERS
A	CLNG	SDFF		1	Continuous	Yes	SUPPLY DIFFUSERS
A	CLNG	SHFT	OVHD	46	DASHED5	Yes	SHAFT PENETRATIONS OVERHEAD
A	CLNG	SIGN		1	Continuous	Yes	GENERAL OVERHEAD SIGNAGE
A	CLNG	SKLT		5	Continuous	Yes	SKYLIGHT OUT-LINE SHOWN ON REFLECTED CEILING PLAN (Only)
A	CLNG	SOFF		212	Continuous	Yes	CEILING SOFFIT EDGES
A	CLNG	SPKR		1	Continuous	Yes	SPEAKER
A	CLNG	SPRN		1	Continuous	Yes	SPRINKLER
A	COLS			51	Continuous	Yes	COLUMNS or block insertion layer
A	COLS	STL_		3	Continuous	Yes	STRUCTURAL STEEL FOR COLUMNS or block insertion layer
A	COLS	STL_	HIDN	5	HIDDEN4	Yes	STRUCTURAL STEEL ELEMENTS HIDDEN
A	COLS	STL_	STRS	46	Continuous	Yes	ARCHITECTURAL STEEL COLUMNS IN STAIR
A	COLS	BASE	PLAT	5	Continuous	Yes	COLUMN BASE PLATE
A	COLS	BEAM		46	Continuous	Yes	STRUCTURAL BEAM ELEMENTS or block insertion layer
A	COLS	BEAM	ABVE	46	DASHED5	Yes	STRUCTURAL BEAM ELEMENTS ABOVE
A	COLS	CLIN		46	CENTER5	Yes	STRUCTURAL COLUMN CENTERLINE
A	COLS	CONC		51	Continuous	Yes	CONCRETE COLUMNS
A	COLS	DETL		1	Continuous	Yes	COLUMN DETAIL
A	COLS	ENCL		212	Continuous	Yes	COLUMN ENCLOSURE
A	COLS	HIDN		5	HIDDEN4	Yes	HIDDEN COLUMN ELEMENTS
A	COLS	MISC		5	Continuous	Yes	MISCELLANEOUS COLUMNS ELEMENTS
A	COLS	PCST		3	Continuous	Yes	PRECAST CONCRETE COLUMNS
A	COLS	PILE		5	Continuous	Yes	COLUMN PILES
A	DOOR			212	Continuous	Yes	FULL HEIGHT DOOR or block insertion layer
A	DOOR	HEAD		212	Continuous	Yes	DOOR HEADERS (APPEAR ON REFLECTED CEILING PLAN (Only)S)
A	DOOR	JAMB		212	Continuous	Yes	DOOR JAMB
A	DOOR	PRHT		1	Continuous	Yes	PARTIAL HEIGHT DOOR; SWING AND LEAF
A	DOOR	SWNG		5	DASHED4	Yes	DOOR SWING (ONLY WHEN DRAWN AS LINEWORK)
A	ELEV	STL_		212	Continuous	Yes	STEEL COLUMNS ELEVATION
A	ELEV	STL_	DETL	5	Continuous	Yes	STEEL FLANGE/WEB IN ELEVATION
A	ELEV	BALC		1	Continuous	Yes	ELEVATION OF BALCONY ELEMENTS
A	ELEV	BLDG	BYND	145,145,145	Continuous	Yes	BUILDING ELEVATIONS IN THE DISTANCE
A	ELEV	BOLL		46	Continuous	Yes	SECURITY BOLLARD ELEVATION
A	ELEV	BYND		1	Continuous	Yes	MATERIALS BEYOND
A	ELEV	CNPY		1	Continuous	Yes	CANOPY ELEVATIONS
A	ELEV	COLS		5	Continuous	Yes	ELEVATION OF COLUMN ELEMENTS
A	ELEV	COLS	STL_	1	Continuous	Yes	ARCHITECTURAL STEEL COLUMN ELEVATION
A	ELEV	COLS	BYND	46	Continuous	Yes	ELEVATION OF COLUMNS IN THE DISTANCE
A	ELEV	COLS	CONC	212	Continuous	Yes	ELEVATION OF CONCRETE COLUMNS
A	ELEV	COLS	ENCL	212	Continuous	Yes	COLUMN ENCLOSURE ELEVATION

A	ELEV	COLS	HIDN	5	DASHED4	Yes	ELEVATION OF HIDDEN COLUMN ELEMENTS
A	ELEV	CURB		46	Continuous	Yes	CURB ELEVATION
A	ELEV	DECK		1	Continuous	Yes	METAL DECK IN ELEVATION
A	ELEV	DOOR		5	Continuous	Yes	DOOR ELEVATION
A	ELEV	DOOR	BYND	46	Continuous	Yes	DOOR ELEVATION IN THE DISTANCE
A	ELEV	EQPM		212	Continuous	Yes	ELEVATIONS OF EQUIPMENT
A	ELEV	ESCL		46	Continuous	Yes	ESCALATOR ELEVATION
A	ELEV	ESCL	BYND	145,145,145	Continuous	Yes	ESCALATOR ELEVATION IN THE DISTANCE
A	ELEV	ESCL	EQPM	46	DASHED5	Yes	ESCALATOR AND EQUIPMENT ELEVATIONS
A	ELEV	ESCL	HIDN	46	DOT5	Yes	ESCALATOR ELEVATION HIDDEN
A	ELEV	ESCL	MACH	46	DASHED5	Yes	ESCALATOR MACHINERY ELEVATIONS (NON-EQUIPMENT)
A	ELEV	EVTR		5	Continuous	Yes	ELEVATOR ELEVATION
A	ELEV	EVTR	BYND	90,90,90	Continuous	Yes	ELEVATOR ELEVATION IN THE DISTANCE
A	ELEV	EVTR	HIDN	46	DOT5	Yes	ELEVATOR ELEVATION HIDDEN
A	ELEV	FASA		1	Continuous	Yes	FASCIA ELEVATION
A	ELEV	FENC		1	Continuous	Yes	ARCHITECTURAL FENCE ELEVATION
A	ELEV	FGPN		5	Continuous	Yes	FIBERGLASS WALL PANELS/JOINTS IN ELEVATION
A	ELEV	FURN		5	Continuous	Yes	ELEVATION OF FURNITURE
A	ELEV	FURN	PLNT	5	Continuous	Yes	SECURITY PLANTER ELEVATION
A	ELEV	GLAZ		1	Continuous	Yes	WINDOW AND/OR GLASS ELEVATION
A	ELEV	GLAZ	MULL	46	Continuous	Yes	WINDOW MULLION ELEVATION
A	ELEV	GRAL		5	Continuous	Yes	GUARDRAIL ELEVATION
A	ELEV	GRAL	BYND	46	Continuous	Yes	GUARDRAIL ELEVATION IN THE DISTANCE
A	ELEV	HRAL		5	Continuous	Yes	HANDRAIL ELEVATION
A	ELEV	HRAL	BYND	46	Continuous	Yes	HANDRAIL ELEVATION IN THE DISTANCE
A	ELEV	LGHT	CLNG	5	Continuous	Yes	ELEVATION CEILING MOUNTED LIGHT FIXTURE
A	ELEV	LGHT	SCON	5	Continuous	Yes	ELEVATION WALL MOUNTED LIGHT FIXTURE
A	ELEV	LUVR		5	Continuous	Yes	LOUVERS IN ELEVATION
A	ELEV	MECH	DUCT	5	Continuous	Yes	ELEVATION OF MECHANICAL DUCT
A	ELEV	MECH	MISC	5	Continuous	Yes	ELEVATION OF MISCELLANEOUS MECHANICAL ELEMENTS
A	ELEV	MECH	REGI	1	Continuous	Yes	ELEVATION OF MECHANICAL REGISTERS
A	ELEV	RAMP	BYND	5	Continuous	Yes	RAMP ELEVATION IN THE DISTANCE
A	ELEV	RAMP	HIDN	46	DASHED4	Yes	RAMP ELEVATION HIDDEN
A	ELEV	ROOF		212	Continuous	Yes	ROOF ELEVATION
A	ELEV	ROOF	BYND	145,145,145	Continuous	Yes	ELEMENTS OF ROOF ELEVATIONS IN THE DISTANCE
A	ELEV	ROOF	GUTR	90,90,90	Continuous	Yes	GUTTER AND LEADER - BEYOND
A	ELEV	ROOF	HIDN	46	HIDDEN4	Yes	HIDDEN ROOF ELEMENTS ELEVATION
A	ELEV	SECU		46	Continuous	Yes	SECURITY ELEMENTS ELEVATION
A	ELEV	STRS		46	Continuous	Yes	STAIR ELEVATION
A	ELEV	STRS	GRAL	46	Continuous	Yes	STAIR GUARDRAIL ELEVATION
A	ELEV	STRS	HIDN	145,145,145	DASHED4	Yes	STAIR ELEVATION HIDDEN
A	ELEV	STRS	HRAL	46	Continuous	Yes	STAIR HANDRAIL ELEVATION
A	ELEV	SWAL		1	Continuous	Yes	SLURRY WALL ELEVATION
A	ELEV	SWAL	MISC	46	Continuous	Yes	SLURRY WALL ELEVATION MISCELLANEOUS
A	ELEV	SWAL	TBAK	46	Continuous	Yes	SLURRY WALL TIEBACK ELEVATION
A	ELEV	VENT		212	Continuous	Yes	VENT ELEVATION
A	ELEV	WALL		3	Continuous	Yes	WALL OUTLINE/PERIMETER
A	ELEV	WALL	BHND	5	Continuous	Yes	WALL ELEMENTS ELEVATION BEHIND
A	ELEV	WALL	BYND	46	Continuous	Yes	WALL ELEMENTS ELEVATION IN THE DISTANCE
A	ELEV	WALL	HIDN	46	HIDDEN4	Yes	ELEMENTS BEHIND WALL PLANE
A	ELEV	WALL	MISC	1	Continuous	Yes	WALL ELEVATION
A	EQPM			212	Continuous	Yes	EQUIPMENT BLOCK INSERTION LAYER
A	EQPM	CMPK		5	Continuous	Yes	TRASH COMPACTOR
A	EQPM	CMPK	BLOW	46	DOT2	Yes	TRASH COMPACTOR BELOW
A	EQPM	CNVY		5	Continuous	Yes	CONVEYOR BELT
A	EQPM	COGN		51	Continuous	Yes	COGENERATION PLANT
A	EQPM	FHCB		1	Continuous	Yes	FIRE HOSE CABINET
A	EQPM	FIXT		5	Continuous	Yes	LAVATORIES, TOILETS, URINALS

A	EQPM	LIFT		46	Continuous	Yes	CAR LIFT MACHINES
A	EQPM	MECH	DUCT	1	Continuous	Yes	MECHANICAL DUCT EQUIPMENT
A	EQPM	MECH	HVAC	212	Continuous	Yes	AIR CONDITIONER/ HEATING UNIT
A	EQPM	MISC		5	Continuous	Yes	MISCELLANEOUS EQUIPMENT
A	EQPM	NICN		5	DASHED4	Yes	EQUIPMENT NOT IN CONTRACT
A	EQPM	SSTA		212	Continuous	Yes	SUBSTATION EQUIPMENT
A	EQPM	VENT		212	Continuous	Yes	MECHANICAL VENT
A	ESCL			1	Continuous	Yes	ESCALATOR BLOCK INSERTION LAYER
A	ESCL	ABVE		46	DASHED5	Yes	ESCALATOR ABOVE (or block insertion layer)
A	ESCL	BLOW		46	DOT4	Yes	ESCALATOR BELOW (or block insertion layer)
A	ESCL	ENCL		1	Continuous	Yes	ESCALATOR BODY OUTLINE
A	ESCL	HRAL		5	Continuous	Yes	ESCALATOR HANDRAIL
A	ESCL	HRAL	PANL	46	Continuous	Yes	HANDRAIL INFILL PANEL – GLASS, METAL, ETC.
A	ESCL	MACH	HIDN	46	DASHED5	Yes	ESCALATOR MACHINERY HIDDEN
A	ESCL	STRS		1	Continuous	Yes	ESCALATOR TREADS
A	ESCL	WPNT	NPLT	255	Continuous	No	ESCALATOR WORKING POINTS
A	EVTR			212	Continuous	Yes	ELEVATOR BLOCK INSERTION LAYER
A	EVTR	CAB_		46	Continuous	Yes	ELEVATOR CAB
A	EVTR	STL_		3	Continuous	Yes	ELEVATOR STRUCTURAL STEEL
A	EVTR	STL_	PLAT	1	Continuous	Yes	ELEVATOR STEEL PLATE
A	EVTR	STL_	POST	1	Continuous	Yes	ELEVATOR STEEL POSTS
A	EVTR	STL_	RODS	1	Continuous	Yes	ELEVATOR STEEL RODS
A	EVTR	BOLS	CHNL	1	Continuous	Yes	ELEVATOR BOLSTER CHANNELS
A	EVTR	CALL	KIOS	5	Continuous	Yes	ELEVATOR CALL KIOSK
A	EVTR	CNWT		5	Continuous	Yes	ELEVATOR COUNTER WEIGHTS
A	EVTR	CROS		51	Continuous	Yes	ELEVATOR CAB CROSSHEAD
A	EVTR	DOOR		1	Continuous	Yes	ELEVATOR DOOR
A	EVTR	DOOR	MISC	5	Continuous	Yes	MISCELLANEOUS DOOR ELEMENTS
A	EVTR	ENCL		212	Continuous	Yes	ELEVATOR ENCLOSURE
A	EVTR	EQPM		1	Continuous	Yes	ELEVATOR EQUIPMENT
A	EVTR	GLAZ		46	Continuous	Yes	ELEVATOR GLASS
A	EVTR	HIDN		46	HIDDEN4	Yes	HIDDEN ELEVATOR ELEMENTS
A	EVTR	HRAL		5	Continuous	Yes	ELEVATOR HANDRAIL
A	EVTR	HWAY	EQPM	8	Continuous	Yes	ELEVATOR HOIST WAY EQUIPMENT
A	EVTR	HYDR	CYLR	51	Continuous	Yes	ELEVATOR HYDRAULIC CYLINDER
A	EVTR	LUVR		46	Continuous	Yes	ELEVATOR VENT LOUVERS
A	EVTR	MISC		1	Continuous	Yes	MISCELLANEOUS ELEVATOR RELATED ELEMENTS
A	EVTR	PANL		255	Continuous	Yes	ELEVATOR OPERATING PANEL
A	EVTR	PLFM		1	Continuous	Yes	ELEVATOR PLATFORM
A	EVTR	SECU	CMRA	212	Continuous	Yes	ELEVATOR SECURITY CAMERA
A	EVTR	SHFT		46	Continuous	Yes	ELEVATOR SHAFT
A	EVTR	SHRD		5	Continuous	Yes	ELEVATOR SHROUD
A	EVTR	SILL		212	Continuous	Yes	ELEVATOR SILL/THRESHOLD
A	EVTR	SPKR		1	Continuous	Yes	ELEVATOR HANDSFREE SPEAKER PHONE
A	EVTR	STIL		5	Continuous	Yes	ELEVATOR STILES
A	FLOR			3	Continuous	Yes	EDGE OF SLAB: AT FLOOR OPENING, OUTLINE OF FLOOR
A	FLOR	ABVE		1	DASHED5	Yes	FLOOR OUTLINE ABOVE
A	FLOR	BEAM		212	Continuous	Yes	FLOOR BEAM
A	FLOR	BEAM	BLOW	1	Continuous	Yes	FLOOR BEAM BELOW
A	FLOR	BLOW		5	DASHEDX2	Yes	FLOOR OUTLINE BELOW
A	FLOR	CASE		1	Continuous	Yes	CASEWORK (MANUFACTURED CABINETS)
A	FLOR	DOCK		5	Continuous	Yes	LOADING DOCK
A	FLOR	DOCK	BLOW	1	DOT2	Yes	LOADING DOCK BELOW
A	FLOR	FENC	ARCH	1	Continuous	Yes	INTERIOR DECORATIVE FENCE
A	FLOR	GRAL		5	Continuous	Yes	GUARDRAILS NOT ATTACHED TO STAIRS
A	FLOR	HRAL		1	Continuous	Yes	HANDRAILS NOT ATTACHED TO STAIRS
A	FLOR	HRAL	BLOW	5	Continuous	Yes	HANDRAILS BELOW
A	FLOR	OPNG		1	Continuous	Yes	X REPRESENTING FLOOR OPENING (Excluding Shafts)
A	FLOR	OPNG	ABVE	1	HIDDEN5	Yes	FLOOR OPENING ABOVE
A	FLOR	OPNG	BLOW	1	Continuous	Yes	FLOOR OPEN TO BELOW
A	FLOR	OVHD		5	HIDDEN4	Yes	OVERHEAD ITEMS (SHELVES, ETC.)
A	FLOR	OVHG		5	DASHED4	Yes	OVERHANG OUT-LINE SHOWN ON FLOOR PLAN
A	FLOR	PLFM		1	Continuous	Yes	PLATFORM
A	FLOR	PLFM	EDGE	1	Continuous	Yes	PLATFORM EDGE
A	FLOR	PLFM	EXTN	3	Continuous	Yes	EXTENSION OF PLATFORM FLOOR
A	FLOR	RAIS		212	Continuous	Yes	RAISED FLOORS

A	FLOR	RAMP		5	Continuous	Yes	RAMP
A	FLOR	RAMP	ABVE	5	HIDDEN-3_TO_3	Yes	RAMP ABOVE
A	FLOR	SCOR	MAJR	3	Continuous	Yes	CONTROL AND/OR EXPANSION JOINTS
A	FLOR	SCOR	MINR	5	Continuous	Yes	TOOLED JOINTS
A	FLOR	SECU		1	Continuous	Yes	SECURITY
A	FLOR	SLAB		3	Continuous	Yes	FLOOR SLAB EDGE
A	FLOR	SLAB	BLOW	1	Continuous	Yes	FLOOR SLAB EDGE BELOW
A	FLOR	SLAB	BYND	5	Continuous	Yes	FLOOR SLAB EDGE BEYOND (VIEWED FROM OPENING ABOVE)
A	FLOR	SPCL		5	Continuous	Yes	ARCH. SPECIALTIES (TOILET ROOM ACCESS. DISPLAY CASES)
A	FLOR	STRS		1	Continuous	Yes	STAIRS or block insertion layer
A	FLOR	STRS	ABVE	1	DASHED2	Yes	STAIRS ABOVE
A	FLOR	STRS	BEAM	46	Continuous	Yes	STAIRS BEAM
A	FLOR	STRS	BLOW	46	DOT2	Yes	STAIRS BELOW
A	FLOR	STRS	GRAL	46	Continuous	Yes	STAIRS GUARDRAIL
A	FLOR	STRS	HIDN	46	HIDDEN2	Yes	STAIRS HIDDEN (STAIR STRUCTURE etc.)
A	FLOR	STRS	HRAL	46	Continuous	Yes	STAIRS HANDRAIL
A	FLOR	STRS	LADR	46	Continuous	Yes	LADDER
A	FLOR	STRS	MISC	145,145,145	Continuous	Yes	STAIRS MISCELLANEOUS
A	FLOR	STRS	STRG	46	Continuous	Yes	STAIR STRINGER
A	FLOR	TACT		1	Continuous	Yes	TACTILE STRIP
A	FLOR	TPTN		212	Continuous	Yes	TOILET PARTITIONS
A	FLOR	WDWK		212	Continuous	Yes	WOODWORK (FIELD - BUILT CABINETS & COUNTERS - USUALLY DASH)
A	FURN			1	Continuous	Yes	FURNITURE - DESKS, ETC.
A	FURN	CHAR		1	Continuous	Yes	CHAIR AND OTHER SEATING
A	FURN	CNTR		212	Continuous	Yes	COUNTERS
A	FURN	HEAT		1	Continuous	Yes	HEAT SINK
A	FURN	KIOS		212	Continuous	Yes	INFO KIOSK
A	FURN	MISC		1	Continuous	Yes	FURNITURE PANELS, STORAGE COMPONENTS, ETC.
A	FURN	PASM		1	Continuous	Yes	PASSIMETER READER
A	FURN	PLTR		46	Continuous	Yes	PLANTER
A	FURN	TKVM		1	Continuous	Yes	TICKET VENDING MACHINES
A	FURN	TURN		1	Continuous	Yes	TURNSTILES
A	GLAZ			212	Continuous	Yes	WINDOWS,WINDOW WALLS,GLAZED PARTITIONS
A	GLAZ	CURT		212	Continuous	Yes	CURTAIN WALLS
A	GLAZ	DOOR		5	Continuous	Yes	GLASS DOOR, GLASS PANE
A	GLAZ	HDWR		5	Continuous	Yes	GLAZING HARDWARE
A	GLAZ	MULL		212	Continuous	Yes	WINDOW MULLIONS
A	GLAZ	MULL	MISC	1	Continuous	Yes	WINDOW MULLIONS MISCELLANEOUS
A	GLAZ	PRHT		1	Continuous	Yes	PARTIAL HEIGHT GLAZED SURFACE
A	GLAZ	SILL	EXTR	5	Continuous	Yes	WINDOWS SILL EXTERIOR
A	GLAZ	SILL	INTR	212	Continuous	Yes	WINDOWS SILL INTERIOR
A	GLAZ	SKLT		5	Continuous	Yes	SKYLIGHT OUT-LINE SHOWN ON FLOOR PLAN
A	GRPH	3DEE		1	Continuous	Yes	3D IMAGES
A	GRPH	IMAG		1	Continuous	Yes	GENERAL JPEGS, BMP, ETC.
A	GRPH	IMAG	ADVT	1	Continuous	Yes	GRAPHIC IMAGES i.e. (BILLBOARDS & ADVERTISEMENTS)
A	GRPH	IMAG	RENR	1	Continuous	Yes	RENDERING AND WATERCOLOR IMAGES
A	GRPH	IMAG	SIGN	1	Continuous	Yes	GRAPHIC SIGNAGE (FULL COLOR - USING PANTONE COLORS)
A	KPLN			212	Continuous	Yes	KEY PLANS
A	KPLN	FURN	TURN	46	Continuous	Yes	TURNSTILES IN KEY PLAN
A	KPLN	MISC		1	Continuous	Yes	KEY PLAN MISCELLANEOUS
A	KPLN	ROOF	LOWR	251	Continuous	Yes	LOW ROOF IN KEY PLAN
A	KPLN	ROOF	MISC	252	Continuous	Yes	ROOF MISCELLANEOUS IN KEY PLAN
A	KPLN	TEXT		1	Continuous	Yes	TEXT IN KEY PLAN
A	KPLN	WALL		1	Continuous	Yes	MAIN WALLS IN KEY PLAN

A	KPLN	WALL	HIDN	8	HIDDEN4	Yes	HIDDEN WALLS IN KEY PLAN
A	KPLN	WALL	MISC	1	Continuous	Yes	MISCELLANEOUS WALLS IN KEY PLAN
A	PATT			46	Continuous	Yes	TEXTURES
A	PATT	CMU_		90,90,90	Continuous	Yes	CONCRETE MASONRY UNIT TEXTURES
A	PATT	STL_		46	Continuous	Yes	PRIMARY STEEL TEXTURES
A	PATT	STL_	MISC	46	Continuous	Yes	MISCELLANEOUS, STEEL, METAL TEXTURES
A	PATT	AREA		46	Continuous	Yes	AREA CROSS HATCHING, MISCELLANEOUS PATTERNING, POCHE
A	PATT	CLNG		46	Continuous	Yes	CEILING TEXTURES
A	PATT	COLS		46	Continuous	Yes	COLUMN PATTERN
A	PATT	CONC		90,90,90	Continuous	Yes	CONCRETE TEXTURES
A	PATT	FGPN		46	Continuous	Yes	FIBERGLASS TEXTURES
A	PATT	FLOR		46	Continuous	Yes	PAVINGS, TILE, CARPET PATTERNS, MATERIAL PATTERN
A	PATT	FURN		46	Continuous	Yes	FINISH PATTERNS
A	PATT	GROT		46	Continuous	Yes	GROUT FILL TEXTURES
A	PATT	GYBD		46	Continuous	Yes	GYPSUM / DRYWALL TEXTURES
A	PATT	INSU		46	Continuous	Yes	FOAM INSULATION BOARD TEXTURES
A	PATT	INSU	BATT	46	Continuous	Yes	BATTEN INSULATION TEXTURES
A	PATT	MISC		46	Continuous	Yes	MISCELLANEOUS TEXTURES
A	PATT	PROT		46	Continuous	Yes	PROTECTION BOARD TEXTURES
A	PATT	ROOF		46	Continuous	Yes	ROOF SURFACE PATTERNS, HATCHING
A	PATT	WALL		46	Continuous	Yes	MATERIAL PATTERNING, WALL INSULATION, HATCHING AND FILL
A	PATT	WALL	CONC	90,90,90	Continuous	Yes	CONCRETE WALL PATTERNS
A	PATT	WOOD		90,90,90	Continuous	Yes	WOOD PATTERN
A	REFN	ALGN	AXIS	113	PHANTOM4	Yes	REFERENCE AXIAL ALIGNMENT
A	REFN	AREA	OTLN	85	Continuous	Yes	REFERENCE AREA OUTLINE FOR AREA CALCULATIONS NOT PRINTED
A	REFN	BLDG	LINE	85	HIDDEN	Yes	REFERENCE BUILDING LINE
A	REFN	CLIN		75	CENTER5	Yes	REFERENCE CENTERLINE
A	REFN	COLS	BUBL	200	Continuous	Yes	REFERENCE COLUMN BUBBLES AND/OR IDENTIFICATION
A	REFN	DIMS		15	Continuous	Yes	REFERENCE DIMENSIONS
A	REFN	ESCL		85	Continuous	Yes	ANY LINES USED TO CONSTRUCT ESCALATORS
A	REFN	FRME		211	Continuous	Yes	REFERENCE SHEET EDGE AND AVAILABLE DRAWING AREA
A	REFN	GRID		21	CENTER5	Yes	REFERENCE GRID FOR DETAILS AND/OR DRAWING LAYOUT
A	REFN	GUID	HORZ	252	Continuous	Yes	HORIZONTAL CONSTRUCTION LINES
A	REFN	GUID	LINE	151	Continuous	Yes	GENERAL CONSTRUCTION LINES
A	REFN	GUID	VERT	143	Continuous	Yes	VERTICAL CONSTRUCTION LINES
A	REFN	KPLN		201	Continuous	Yes	REFERENCE KEY PLAN
A	REFN	ROOM		201	Continuous	Yes	REFERENCE ROOM TAG
A	REFN	NSRT	BLOK	255	Continuous	Yes	FIXED BLOCK INSERTION POINT
A	REFN	STRS		15	Continuous	Yes	ANY LINES USE TO CONSTRUCT STAIRS
A	REFN	TEXT		15	Continuous	Yes	REFERENCE TEXT
A	REFN	TEXT	ESCL	222	Continuous	Yes	REFERENCE TEXT FOR ESCALATOR DESIGN
A	REFN	TEXT	EVTR	222	Continuous	Yes	REFERENCE TEXT FOR ELEVATORS DESIGN
A	REFN	TEXT	VCIR	15	Continuous	Yes	REFERENCE TEXT FOR STAIR DESIGN
A	REFN	TRAK	DYNA	93	DASHED5	Yes	REFERENCE TRACK DYNAMIC ENVELOPE
A	REFN	VPRT	FRME	1	Continuous	Yes	POLYGON REPRESENTING THE VIEW PORT WINDOW AREA DRAWN IN MODEL SPACE
A	REFN	WPNT		255	Continuous	Yes	GENERAL WORKING POINTS
A	REVS	BUBL	0001	255	Continuous	Yes	REVISION CLOUD AND ARC (change number with each revision)
A	REVS	SYMB	0001	3	Continuous	Yes	REVISION TRIANGLE (change number with each revision)
A	ROOF			4	Continuous	Yes	ROOF OUTLINE, ROOF PERIMETER / EDGE, ROOF GEOMETRY
A	ROOF	ABVE		212	DASHED4	Yes	ROOF ABOVE OUTLINE
A	ROOF	BLOW		46	Continuous	Yes	ROOF BELOW
A	ROOF	CNPY		51	Continuous	Yes	CANOPY GEOMETRY - MAIN

A	ROOF	CNPY	MISC	1	Continuous	Yes	CANOPY GEOMETRY – SECONDARY
A	ROOF	DRAN		46	Continuous	Yes	ROOF DRAIN
A	ROOF	EDGE		1	Continuous	Yes	ROOF OUTLINE
A	ROOF	GUTR		5	Continuous	Yes	GUTTER AND LEADER
A	ROOF	GUTR	BLOW	46	Continuous	Yes	GUTTER AND LEADER - BELOW
A	ROOF	HIGH		3	Continuous	Yes	HIGH ROOF VIEW FROM THE TOP
A	ROOF	LEVL		5	Continuous	Yes	LEVEL CHANGES, PITCH DIRECTIONS AND CANTS
A	ROOF	LOWR		212	Continuous	Yes	LOW ROOF
A	ROOF	MISC		1	Continuous	Yes	STAIR RISER, STAIR HANDRAIL, NOSING, GUARD RAIL, ROOF FURN.
A	ROOF	PPET		1	Continuous	Yes	ROOF PARAPET
A	ROOF	PPET	BLOW	46	Continuous	Yes	ROOF PARAPET BELOW
A	ROOF	RIBS	HIDN	46	HIDDEN	Yes	HIDDEN ROOF RIBS
A	ROOF	STRS	ABVE	46	HIDDEN	Yes	ROOF STAIRS ABOVE
A	ROOF	STRS	DRAN	46	Continuous	Yes	ROOF STAIRS DRAIN
A	SECT	STL_		51	Continuous	Yes	STRUCTURAL STEEL CUT BY SECTION
A	SECT	STL_	MISC	46	Continuous	Yes	SECTION THROUGH MISCELLANEOUS STEEL SHAPES AND COLUMN
A	SECT	BEAM	STL_	5	Continuous	Yes	SECTION OF STEEL COLUMN
A	SECT	BEAM	CONC	4	Continuous	Yes	SECTION OF CONCRETE BEAM
A	SECT	CLNG	LGHT	212	Continuous	Yes	SECTION OF LIGHT FIXTURE IN CEILING
A	SECT	CLNG	PANL	212	Continuous	Yes	SECTION OF CEILING PANEL
A	SECT	CNPY		1	Continuous	Yes	CANOPY IN SECTION
A	SECT	COLS	STL_	51	Continuous	Yes	STEEL COLUMN SECTION
A	SECT	COLS	CONC	51	Continuous	Yes	SECTION OF CONCRETE COLUMN
A	SECT	COLS	DETL	1	Continuous	Yes	COLUMN SECTION DETAIL
A	SECT	COLS	ENCL	212	Continuous	Yes	COLUMN ENCLOSURE SECTION
A	SECT	COLS	HDWR	5	Continuous	Yes	ELEMENTS ASSOCIATED WITH SECURING COLUMNS TO OTHER ELEMENTS LIKE NUTS, BOLTS, SCREWS, etc.
A	SECT	COLS	HIDN	46	DASHED4	Yes	HIDDEN COLUMN SECTION
A	SECT	COLS	PCST	46	Continuous	Yes	SECTION OF PRECAST CONCRETE
A	SECT	CONC		51	Continuous	Yes	SECTION OF CONCRETE
A	SECT	CONC	MISC	5	Continuous	Yes	SECTION OF MISCELLANEOUS CONCRETE
A	SECT	DECK		212	Continuous	Yes	METAL DECK IN SECTION
A	SECT	DOOR		1	Continuous	Yes	DOOR IN SECTION
A	SECT	DUCT	MISC	46	Continuous	Yes	SECTION THRU MISCELLANEOUS MECHANICAL
A	SECT	DUCT	RETN	212	Continuous	Yes	SECTION THRU MECHANICAL RETURN DUCT
A	SECT	DUCT	SUPL	3	Continuous	Yes	SECTION THRU MECHANICAL SUPPLY DUCT
A	SECT	ESCL		3	Continuous	Yes	ESCALATOR IN SECTION
A	SECT	ESCL	HRAL	5	Continuous	Yes	ESCALATOR HANDRAIL IN SECTION
A	SECT	ESCL	MACH	3	Continuous	Yes	ESCALATOR MACHINERY IN SECTION
A	SECT	FNDA		51	Continuous	Yes	FOUNDATIONS IN SECTION
A	SECT	GLAZ		3	Continuous	Yes	WINDOWS CUT BY SECTION
A	SECT	GLAZ	HDWR	1	Continuous	Yes	SECTION OF GLAZING HARDWARE
A	SECT	GRAL		5	Continuous	Yes	GUARDRAIL SECTION
A	SECT	HRAL		5	Continuous	Yes	SECTION OF HANDRAIL
A	SECT	JBAR		51	Continuous	Yes	SECTION OF JERSEY BARRIER
A	SECT	MCUT		51	Continuous	Yes	MAIN MATERIAL CUT BY SECTION
A	SECT	MCUT	HIDN	1	DASHED5	Yes	SECTION OF HIDDEN MATERIAL
A	SECT	MCUT	MISC	1	Continuous	Yes	SECONDARY MATERIAL CUT IN SECTION
A	SECT	MISC		3	Continuous	Yes	MISCELLANEOUS MATERIAL CUT BY SECTION
A	SECT	MISC	HIDN	1	HIDDEN-3_TO_3	Yes	HIDDEN MISCELLANEOUS MATERIAL CUT IN SECTION
A	SECT	PANL	STNE	212	Continuous	Yes	SECTION OF STONE PANEL
A	SECT	PIPE		1	Continuous	Yes	SECTION THRU PIPE
A	SECT	PIPE	MISC	5	Continuous	Yes	SECTION THRU MISCELLANEOUS PIPE ELEMENTS
A	SECT	RAMP		3	Continuous	Yes	SECTION OF RAMP
A	SECT	RIVR		1	Continuous	Yes	RIVER LINE IN SECTION
A	SECT	SEWR		3	Continuous	Yes	SEWER IN SECTION
A	SECT	SKLT		5	Continuous	Yes	SKYLIGHT SECTION
A	SECT	STRS		3	Continuous	Yes	STAIRS IN SECTION
A	SECT	STRS	STRG	3	Continuous	Yes	SECTION OF STAIR STRINGER

A	SECT	TRAN		5	Continuous	Yes	SECTION OF TRAINS, SUBWAYS & MONORAILS
A	SECT	WALL		4	Continuous	Yes	WALLS CUT BY SECTION
A	SECT	WALL	FGPN	212	Continuous	Yes	FIBER GLASS PANEL AND/OR SYSTEM IN SECTION
A	SECT	WALL	GYPB	1	Continuous	Yes	GYPSUM WALL BOARD IN SECTION
A	SECT	WALL	MISC	212	Continuous	Yes	MISCELLANEOUS WALL SECTION
A	SECT	WALL	RETN	3	Continuous	Yes	RETAINING WALL IN SECTION
A	SECT	WALL	SHFT	3	Continuous	Yes	SHAFT WALL IN SECTION
A	SECT	WDBL		5	Continuous	Yes	WOOD BLOCKING IN SECTION
A	SITE	AIRP		3	Continuous	Yes	AIRPORT
A	SITE	ALGN	CLL_	4	PHANTOM4	Yes	CONTRACT LIMIT LINE
A	SITE	ALGN	PROP	1	DASHDOT4	Yes	PROPERTY LINE
A	SITE	ALGN	ROWL	3	PHANTOM5	Yes	RIGHT OF WAY LINE
A	SITE	BLDG	ABVE	3	DASHEDX2	Yes	BUILDING ABOVE OUTLINE
A	SITE	BOLL		5	Continuous	Yes	SECURITY BOLLARD
A	SITE	CURB		5	Continuous	Yes	CURBS
A	SITE	FENC		1	Continuous	Yes	EXTERIOR FENCE
A	SITE	FENC	ARCH	1	Continuous	Yes	EXTERIOR DECORATIVE FENCE
A	SITE	GRID	HZ01	46	Continuous	Yes	PRIMARY X-AXIS COORDINATE GRID
A	SITE	GRID	HZ02	5	DOT4	Yes	SECONDARY X-AXIS COORDINATE GRID
A	SITE	GRID	VT01	46	Continuous	Yes	PRIMARY Y-AXIS COORDINATE GRID
A	SITE	GRID	VT02	5	DOT4	Yes	SECONDARY Y-AXIS COORDINATE GRID
A	SITE	JBAR		5	Continuous	Yes	JERSEY BARRIER
A	SITE	LGHT		5	Continuous	Yes	STREET LIGHT
A	SITE	MISC		46	Continuous	Yes	MISCELLANEOUS SITE FEATURES
A	SITE	PILE		3	Continuous	Yes	PILES
A	SITE	SIGN		1	Continuous	Yes	SITE SIGNAGE
A	SITE	STRE	SBAK	5	HIDDEN-3_TO_3	Yes	STREET SETBACKS
A	SITE	STRE	STRP	46	Continuous	Yes	TRAFFIC STREET STRIPING
A	SITE	SWLK		5	Continuous	Yes	SIDEWALK
A	SITE	TBAK		252	Continuous	Yes	TIEBACKS
A	SITE	TRAF	SLPE	46	DASHED5	Yes	SLOPE
A	SITE	TRAK		5	Continuous	Yes	TRACKS
A	SITE	TRAK	CLIN	1	CENTER	Yes	TRACK CENTERLINES
A	SITE	TUNL		46	Continuous	Yes	TUNNEL
A	SITE	UNGR	STRU	90,90,90	Continuous	Yes	UNDERGROUND STRUCTURE or xref/block insertion layer
A	SITE	UNGR	UTIL	90,90,90	Continuous	Yes	UNDERGROUND UTILITIES or xref/block insertion layer
A	SWAL			51	Continuous	Yes	SLURRY WALL
A	SWAL	TBAK		46	Continuous	Yes	SLURRY WALL TIEBACK
A	TONE			50,50,50	Continuous	Yes	VARIOUS COLOR TONING (USED FOR PRESENTATION - STAGE 1 ONLY)
A	TONE	SKY_		197,219,242	Continuous	Yes	SKY ZONE FILL
A	TONE	AIRP		90,90,90	Continuous	Yes	SHADING OF AIRPORT
A	TONE	BLDG		191,127,255	Continuous	Yes	BUILDING SECTIONS AND ELEVATIONS
A	TONE	COLS		175,175,175	Continuous	Yes	COLUMN ENCLOSURE FILL
A	TONE	ELEC		102,204,204	Continuous	Yes	ELECTRICAL, ELECTRONICS, SPACES FILL
A	TONE	GRND		90,90,90	Continuous	Yes	SECTION/ELEVATION/PLAN GROUND PLANE
A	TONE	MECH		102,153,204	Continuous	Yes	MECHANICAL ZONE FILL
A	TONE	OFCE		255,223,127	Continuous	Yes	OFFICE ZONE FILL
A	TONE	OPNG		240,240,240	Continuous	Yes	OPEN TO BELOW ZONE FILL
A	TONE	OTLN		165	Continuous	Yes	OUTLINE OF TONE FILL
A	TONE	OTLN	SKY_	61	Continuous	Yes	SKY FILL OUTLINE
A	TONE	OTLN	BLDG	191	Continuous	Yes	BUILDING SECTIONS AND ELEVATIONS OUTLINE
A	TONE	OTLN	COLS	253	Continuous	Yes	COLUMN ENCLOSURE FILL OUTLINE
A	TONE	OTLN	GRND	251	Continuous	Yes	SECTION/ELEVATION/PLAN GROUND PLANE OUTLINE
A	TONE	OTLN	MECH	153	Continuous	Yes	MECHANICAL FILL OUTLINE
A	TONE	OTLN	OFCE	41	Continuous	Yes	OFFICE FILL OUTLINE
A	TONE	OTLN	OPNG	61	Continuous	Yes	OPEN TO BELOW FILL OUTLINE
A	TONE	OTLN	PARK	254	Continuous	Yes	PARKING FILL OUTLINE
A	TONE	OTLN	PUBL	40	Continuous	Yes	PUBLIC FILL OUTLINE
A	TONE	OTLN	RETL	21	Continuous	Yes	RETAIL FILL OUTLINE
A	TONE	OTLN	RIVR	153	Continuous	Yes	RIVER FILL OUTLINE
A	TONE	OTLN	SECT	255	Continuous	Yes	SHADING OUTLINES

A	TONE	OTLN	SERV	141	Continuous	Yes	SERVICE FILL OUTLINE
A	TONE	OTLN	SWAL	253	Continuous	Yes	SLURRY WALL OUTLINE
A	TONE	OTLN	VCIR	30	Continuous	Yes	VERTICAL CIRCULATION FILL OUTLINE
A	TONE	PARK		215,215,215	Continuous	Yes	PARKING ZONE FILL
A	TONE	PUBL		153,204,102	Continuous	Yes	PUBLIC ZONE FILL
A	TONE	RETL		255,159,127	Continuous	Yes	RETAIL ZONE FILL
A	TONE	RIVR		102,153,204	Continuous	Yes	RIVER ZONE FILL
A	TONE	SERV		127,223,255	Continuous	Yes	SERVICE ZONE FILL
A	TONE	SITE		175,175,175	Continuous	Yes	
A	TONE	SWAL		145,145,145	Continuous	Yes	SHADING OF SLURRY WALLS
A	TONE	UNAS		145,145,145	Continuous	Yes	UNASSIGNED SPACE
A	TONE	UTIL		215,215,215	Continuous	Yes	UTILITY SPACE FILL (PLUMBING, PUMP ROOMS, ETC.)
A	TONE	VERT		255,204,0	Continuous	Yes	VERTICAL CIRCULATION ZONE FILL
A	TONE	WALL		145,145,145	Continuous	Yes	WALL ZONE FILL
A	WALL			4	Continuous	Yes	FULL HEIGHT WALLS, STAIR AND SHAFT WALLS, WALLS TO STRUCTURE
A	WALL	ABVE		5	DASHEDX2	Yes	WALL ABOVE
A	WALL	BARR		1	Continuous	Yes	WALL BARRIER OR LINER WALL
A	WALL	BLOW		5	DASHED5	Yes	WALL BELOW
A	WALL	BOTH		5	Continuous	Yes	BOOTH WALL
A	WALL	CASE		212	Continuous	Yes	WALL MOUNTED CASEWORK
A	WALL	CNPY		1	Continuous	Yes	CANOPY WALL
A	WALL	FGPN		5	Continuous	Yes	FIBERGLASS WALL PANEL
A	WALL	FNSH		1	Continuous	Yes	FINISHES, WOODWORK, TRIM
A	WALL	GYPB		1	Continuous	Yes	GYPSUM WALLBOARD
A	WALL	KWAL	NFIL	46	Continuous	Yes	KALWALL INFILL GRID
A	WALL	KWAL	OTLN	1	Continuous	Yes	KALWALL MAIN PANEL
A	WALL	MISC		1	Continuous	Yes	MISCELLANEOUS WALL
A	WALL	MOVE		4	Continuous	Yes	MOVABLE PARTITIONS
A	WALL	OTLN		4	Continuous	Yes	BUILDING OUTLINES
A	WALL	OTLN	ABVE	3	DASHED2	Yes	OUTLINE OF WALL ABOVE
A	WALL	OTLN	BLOW	1	DASHDOT	Yes	OUTLINE OF WALL BELOW
A	WALL	PRHT		3	Continuous	Yes	PARTIAL HEIGHT WALLS (DON'T APPEAR ON REFLECTED CEILING PLANS)
A	WALL	SHER		3	Continuous	Yes	SHEAR WALL
A	WALL	SHFT		3	Continuous	Yes	SHAFT WALL
A	WALL	SHFT	OPNG	46	Continuous	Yes	X REPRESENTING SHAFT OPENING - OPENING IN WALL RELATED TO SHAFTS, ETC
A	WALL	STRS		212	Continuous	Yes	WALLS AROUND STAIRS
A	WALL	TPTN		212	Continuous	Yes	TOILET PARTITIONS
A	WALL	TRAK		1	Continuous	Yes	WALLS AROUND TRACKS
A	WALL	TRAK	BLOW	46	Continuous	Yes	WALLS AROUND TRACKS BELOW
A	WALL	TRAK	HIDN	50,50,50	HIDDEN	Yes	HIDDEN WALLS AROUND TRACKS
A	WALL	VENT		212	Continuous	Yes	WALL VENTS
A	XREF	OLE_		255	Continuous	Yes	LAYER TO ATTACH OLE LINKED FILES ONTO (i.e. EXCEL, ACCESS OR WORD)
A	XREF	BLDG		46	Continuous	Yes	XREF BUILDING ONTO

1.16.2.2 LANDSCAPE WORK

DISCIPLINE	MAJOR	MINOR	DESC	COLOR	LINETYPE	PLOTS	DESCRIPTION
L	GNRL	CHNG		51	DIVIDE4	Yes	IDENTIFICATION OF UPDATED WORK
L	ANNO	_BUS		5	CONTINUOUS	Yes	BUSES
L	ANNO	_CLL		4	CONTINUOUS	Yes	CONTRACT LIMIT LINE
L	ANNO	_CUT	LINE	46	CONTINUOUS	Yes	CUT LINE
L	ANNO	BREK		5	CONTINUOUS	Yes	BREAK LINE
L	ANNO	sCARS		46	CONTINUOUS	Yes	CARS
L	ANNO	CLIN		46	CENTER5	Yes	CENTERLINE
L	ANNO	DIMS	GUID	1	DOT8	Yes	DIMENSION GUIDE LINE
L	ANNO	DIMS		1	CONTINUOUS	Yes	DIMENSIONS
L	ANNO	DETL	IDEN	3	CONTINUOUS	Yes	DETAIL SYMBOL
L	ANNO	GDLN		102,204,153	CONTINUOUS	Yes	GUIDELINE
L	ANNO	LGND	DISC	1	CONTINUOUS	Yes	LEGEND DISCLAIMER
L	ANNO	LGND		212	CONTINUOUS	Yes	LEGENDS AND SYMBOLS ASSOCIATED WITH LEGENDS
L	ANNO	MLIN		4	DIVIDE2	Yes	MATCH LINE
L	ANNO	NOTE		212	CONTINUOUS	Yes	MISCELLANEOUS NOTES
L	ANNO	PEOP		46	CONTINUOUS	Yes	PEOPLE
L	ANNO	REDL		255,0,0	CONTINUOUS	Yes	REDLINE
L	ANNO	SCUT	AROW	5	CONTINUOUS	Yes	DIRECTIONAL ARROW
L	ANNO	SCUT	GUID	212	DOT8	Yes	SECTION CUT LINE CONNECTING HEAD AND TAIL
L	ANNO	SCUT	SYMB	3	CONTINUOUS	Yes	SECTION CUT SYMBOL
L	ANNO	SYMB	MISC	3	CONTINUOUS	Yes	MISCELLANEOUS SYMBOLS
L	ANNO	SYMB	NRTH	5	CONTINUOUS	Yes	NORTH ARROW
L	ANNO	SYMB	SCLE	1	CONTINUOUS	Yes	SCALE BAR
L	ANNO	SYMB		3	CONTINUOUS	Yes	SYMBOL BLOCK INSERTION LAYER
L	ANNO	TEXT	_CLL	1	CONTINUOUS	Yes	CONTRACT LIMIT LINE TEXT
L	ANNO	TEXT	DATE	5	CONTINUOUS	Yes	PRESENTATION DATE
L	ANNO	TEXT	LEDR	5	CONTINUOUS	Yes	TEXT LEADER LINE
L	ANNO	TEXT	MISC	5	CONTINUOUS	Yes	SECONDARY TEXT
L	ANNO	TEXT	MLIN	212	CONTINUOUS	Yes	MATCH LINE TEXT
L	ANNO	TEXT	PLIN	1	CONTINUOUS	Yes	PROPERTY LINE TEXT
L	ANNO	TEXT	ROWL	212	CONTINUOUS	Yes	RIGHT OF WAY TEXT
L	ANNO	TEXT	TITL	3	CONTINUOUS	Yes	TITLE TEXT
L	ANNO	TEXT		212	CONTINUOUS	Yes	TEXT
L	ANNO	TEXT	STRE	1	CONTINUOUS	Yes	STREET NAME TEXT
L	ANNO	TRAN		46	CONTINUOUS	Yes	TRAINS, SUBWAYS & MONORAILS
L	ANNO	TRUK		46	CONTINUOUS	Yes	TRUCKS
L	ANNO	TTLB	PRES	5	CONTINUOUS	Yes	DRAWING TITLE ON PRESENTATION BORDER
L	ANNO	VPRT		200	CONTINUOUS	No	VIEW PORT CREATION LAYER
L	ANNO	VPRT	TONE	255,255,255	CONTINUOUS	Yes	VIEW PORT SHADE (FOR PRESENTATION)
L	AREA	IDEN		40	CONTINUOUS	No	AREA CALCULATION
L	AREA	OTLN		40	CONTINUOUS	No	AREA CALCULATION BOUNDARY LINES
L	AREA	PATT	HTCH	41	CONTINUOUS	No	AREA HATCH
L	AREA	PLNT		40	CONTINUOUS	No	PLANT NAME AND QUANTITY
L	CHRT	_BDR		3	CONTINUOUS	Yes	CHART BORDER
L	CHRT	LINE		1	CONTINUOUS	Yes	CHART LINE
L	CHRT	TEXT		212	CONTINUOUS	Yes	CHART TEXT
L	CHRT	TITL		212	CONTINUOUS	Yes	CHART TITLE
L	ELEV	BYND		135,135,135	CONTINUOUS	Yes	ELEVATION or SECTION OBJECTS IN THE DISTANCE
L	ELEV	TREE	BYND	135,135,135	CONTINUOUS	Yes	TREES IN THE DISTANCE (BACKGROUND)
L	ELEV	HIDN		1	HIDDEN2	Yes	ELVATION or SECTION OBJECTS OBSCURED BY FORGROUND OBJECTS
L	ELEV	SHRB	BYND	135,135,135	CONTINUOUS	Yes	SHRUB THE DISTANCE (BACKGROUND)
L	GRAD	INDX		212	CONTINUOUS	Yes	MAJOR CONTOUR LINES
L	GRAD	INTR		46	CONTINUOUS	Yes	MINOR CONTOUR LINES
L	GRAD	TEXT		212	CONTINUOUS	Yes	MAJOR CONTOUR LINE LABEL TEXT
L	KPLN	_BDR		3	CONTINUOUS	Yes	KEY PLAN BORDER
L	KPLN	HTCH		46	CONTINUOUS	Yes	KEY PLAN HATCH
L	KPLN	TEXT		1	CONTINUOUS	Yes	KEY PLAN TEXT
L	PLAN	_HDR		5	CONTINUOUS	Yes	HEADER

L	PLAN	_ROW		1	PHANTOM5	Yes	RIGHT OF WAY LINE
L	PLAN	ABTM		3	CONTINUOUS	Yes	BRIDGE ABUTMENT
L	PLAN	ARCH	MISC	175,175,175	CONTINUOUS	Yes	ARCHITECTURAL MISCELLANEOUS
L	PLAN	BLDG	ABVE	1	DASHED	Yes	BUILDING ABOVE OUTLINE
L	PLAN	BLDG	HTCH	46	CONTINUOUS	Yes	BUILDING HATCH
L	PLAN	BLDG		4	CONTINUOUS	Yes	BUILDING OUTLINE
L	PLAN	BOLL		212	CONTINUOUS	Yes	BOLLARD
L	PLAN	BRDG		46	CONTINUOUS	Yes	BRIDGE
L	PLAN	BULB	HTCH	15	CONTINUOUS	Yes	BULB FILL
L	PLAN	BULB		5	CONTINUOUS	Yes	AREA TO RECEIVE BULB PLANTING
L	PLAN	CNPY		46	DASHED2	Yes	CANOPY
L	PLAN	COLS		46	CONTINUOUS	Yes	COLUMN
L	PLAN	CONC	ACNT	17	CONTINUOUS	Yes	CONCRETE ACCENT BAND
L	PLAN	CONC	HTCH	135,135,135	CONTINUOUS	Yes	CONCRETE FILL
L	PLAN	CONC	_JNT	1	CONTINUOUS	Yes	EXPANSION JOINT
L	PLAN	CONC	SCLN	1	CONTINUOUS	Yes	CONCRETE SCORELINE
L	PLAN	CONC		5	CONTINUOUS	Yes	AREA TO RECEIVE CONCRETE
L	PLAN	CURB	BACK	5	CONTINUOUS	Yes	BACK OF CURB
L	PLAN	CURB	FACE	212	CONTINUOUS	Yes	FACE OF CURB
L	PLAN	CIVL	WQFT	175,175,175	CONTINUOUS	Yes	WATER QUALITY FILTRATION TRENCH
L	PLAN	EROS	HTCH	5	CONTINUOUS	Yes	EROSION CONTROL MAT FILL
L	PLAN	EROS		212	CONTINUOUS	Yes	AREA TO RECEIVE EROSION CONTROL MAT
L	PLAN	FENC	_CLF	212	FENCE	Yes	CHAIN LINK FENCE
L	PLAN	FENC	_PIC	212	FENCE	Yes	PICKET FENCE
L	PLAN	FURN		1	CONTINUOUS	Yes	SITE FURNITURE
L	PLAN	GMLH	HTCH	5	CONTINUOUS	Yes	GRAVEL MULCH FILL
L	PLAN	GMLH		1	CONTINUOUS	Yes	AREA TO RECEIVE GRAVEL MULCH
L	PLAN	JBAR		135,135,135	CONTINUOUS	Yes	JERSEY BARRIER
L	PLAN	LGHT	LDSP	1	CONTINUOUS	Yes	LANDSCAPE LIGHT
L	PLAN	LGHT		1	CONTINUOUS	Yes	STREET LIGHT
L	PLAN	LINE	_HVY	4	CONTINUOUS	Yes	HEAVY LINEWORK
L	PLAN	LINE	_MED	3	CONTINUOUS	Yes	MEDIUM LINEWORK
L	PLAN	LINE	FINE	1	CONTINUOUS	Yes	FINE LINEWORK
L	PLAN	LINE	XFIN	46	CONTINUOUS	Yes	EXTRA FINE LINEWORK
L	PLAN	LMOD		1	CONTINUOUS	Yes	LIMIT OF DISTURBANCE
L	PLAN	MISC	ELEC	175,175,175	CONTINUOUS	Yes	MISCELLANEOUS ELECTRICAL
L	PLAN	MISC	OTLN	31	CONTINUOUS	Yes	MISCELLANEOUS HATCH OUTLINE
L	PLAN	MISC		1	CONTINUOUS	Yes	MISCELLANEOUS SITE FEATURES
L	PLAN	PILE		5	CONTINUOUS	Yes	PILES
L	PLAN	PRNL	HTCH	1	CONTINUOUS	Yes	PERENNIAL FILL
L	PLAN	PRNL		5	CONTINUOUS	Yes	AREA TO RECEIVE PERENNIALS
L	PLAN	PROP		1	DASHDOT4	Yes	PROPERTY LINE
L	PLAN	RRIP		46	CONTINUOUS	Yes	RIP RAP FILL
L	PLAN	SCRN	HTCH	1	CONTINUOUS	Yes	STONE SCREENINGS FILL
L	PLAN	SCRN		212	CONTINUOUS	Yes	AREA TO RECEIVE STONE SCREENINGS
L	PLAN	SEED	HTCH	212	CONTINUOUS	Yes	SEED FILL
L	PLAN	SEED		31	CONTINUOUS	Yes	AREA TO RECEIVE SEED
L	PLAN	SHRB	HTCH	1	CONTINUOUS	Yes	SHRUB FILL
L	PLAN	SHRB		212	CONTINUOUS	Yes	AREA TO RECEIVE SHRUBS
L	PLAN	SLEV		5	CONTINUOUS	Yes	IRRIGATION SLEEVE
L	PLAN	SLFN		1	DASHDOT	Yes	SILT FENCE
L	PLAN	SPAD	EDGE	90,90,90	DASHED5	Yes	SPADE CUT EDGE
L	PLAN	SPOT	ELEV	1	CONTINUOUS	Yes	SPOT ELEVATION
L	PLAN	SSPL	HTCH	175,175,175	CONTINUOUS	Yes	SALT SPLASH FILL
L	PLAN	SSPL	TYPA	46	CONTINUOUS	Yes	EWR TYPE A SALT SPLASH
L	PLAN	SSPL	TYPB	46	CONTINUOUS	Yes	EWR TYPE B SALT SPLASH
L	PLAN	SSPL	JFK	1	CONTINUOUS	Yes	JFK SALT SPLASH
L	PLAN	SSPL	LGA	1	CONTINUOUS	Yes	LGA SALT SPLASH
L	PLAN	SSPL	SWF	1	CONTINUOUS	Yes	SWF SALT SPLASH

L	PLAN	SWLK		175,175,175	CONTINUOUS	Yes	SIDEWALK
L	PLAN	TEXT		212	CONTINUOUS	Yes	PLAN TEXT
L	PLAN	TRAF	__GR	175,175,175	CONTINUOUS	Yes	GUARD RAIL (W-BEAM OR BOX BEAM)
L	PLAN	TRAF	_PRK	90,90,90	CONTINUOUS	Yes	PARKING STALLS
L	PLAN	TRAF	HCAP	90,90,90	CONTINUOUS	Yes	HANDICAP PARKING
L	PLAN	TRAF	MISC	175,175,175	CONTINUOUS	Yes	MISCELLAENOUS TRAFFIC ITEMS
L	PLAN	TRAF	SIGN	175,175,175	CONTINUOUS	Yes	TRAFFIC SIGN
L	PLAN	TRAF	WHST	175,175,175	CONTINUOUS	Yes	WHEEL STOPS
L	PLAN	TRAF		175,175,175	CONTINUOUS	Yes	GENERAL PAVEMENT MARKINGS
L	PLAN	TRAK		46	CONTINUOUS	Yes	TRACKS
L	PLAN	TREE	_ORN	5	CONTINUOUS	Yes	ORNAMENTAL TREE
L	PLAN	TREE	EVER	1	CONTINUOUS	Yes	EVERGREEN TREE
L	PLAN	TREE	CNPY	46	CONTINUOUS	Yes	CANOPY TREE
L	PLAN	TREE	PBOX	46	CONTINUOUS	Yes	TREE PROTECTION BOX
L	PLAN	WALL	RETN	212	CONTINUOUS	Yes	RETAINING WALL
L	PLAN	WATR	EDGE	5	DASHEDX2	Yes	WATER EDGE
L	PLAN	WETL	__GS	1	CONTINUOUS	Yes	GOOSE STAKE FLAG
L	PLAN	WETL	MHW	1	DASHED5	Yes	MEAN HIGH WATER
L	PLAN	WETL	MLW	1	HIDDENX2	Yes	MEAN LOW WATER
L	PLAN	WETL	_WFF	212	CONTINUOUS	Yes	WATER FOWL FENCING
L	REVS	BUBL		3	CONTINUOUS	Yes	REVISIONS BUBBLE
L	REVS	SYMB		3	CONTINUOUS	Yes	REVISIONS TEXT
L	SCHD	PLNT		255	CONTINUOUS	Yes	PLANT SCHEDULE INSERTION LAYER (AutoCAD Table)
L	SCHD	PLNT	_BDR	4	CONTINUOUS	Yes	PLANT SCHEDULE BORDER
L	SCHD	PLNT	LINE	212	CONTINUOUS	Yes	PLANT SCHEDULE LINES
L	SCHD	PLNT	TEXT	1	CONTINUOUS	Yes	PLANT SCHEDULE TEXT
L	SCHD	PLNT	TITL	3	CONTINUOUS	Yes	PLANT SCHEDULE TITLE
L	SECT	CARS		5	CONTINUOUS	Yes	VEHICLES
L	SECT	CONC	HTCH	1	CONTINUOUS	Yes	CONCRETE FILL
L	SECT	CONC		5	CONTINUOUS	Yes	AREA TO RECEIVE CONCRETE
L	SECT	DGAB		90,90,90	CONTINUOUS	Yes	DGABC
L	SECT	EROS		212	CONTINUOUS	Yes	EROSION CONTROL MAT
L	SECT	ERTH	HTCH	135,135,135	CONTINUOUS	Yes	EARTH FILL
L	SECT	ERTH		255,191,0	CONTINUOUS	Yes	AREA TO RECEIVE EARTH
L	SECT	__GC		5	CONTINUOUS	Yes	GROUND COVER
L	SECT	GRAV	MLCH	46	CONTINUOUS	Yes	GRAVEL MULCH
L	SECT	LINE	FINE	1	CONTINUOUS	Yes	FINE LINEWORK
L	SECT	LINE	_MED	3	CONTINUOUS	Yes	MEDIUM LINEWORK
L	SECT	LINE	XFIN	46	CONTINUOUS	Yes	EXTRA FINE LINEWORK
L	SECT	LINE	_HVY	4	CONTINUOUS	Yes	HEAVY LINEWORK
L	SECT	MISC	HTCH	175,175,175	CONTINUOUS	Yes	MISCELLANEOUS HATCH
L	SECT	MISC	OTLN	255,191,127	CONTINUOUS	Yes	MISCELLANEOUS OUTLINE
L	SECT	PEOP		5	CONTINUOUS	Yes	PEOPLE
L	SECT	PRNL		1	CONTINUOUS	Yes	PERENNIAL
L	SECT	PROF	__GL	5	DOT2	Yes	PROFILE GUIDELINES
L	SECT	PROF		3	CONTINUOUS	Yes	PROPOSED PROFILE
L	SECT	PROF	TEXT	212	CONTINUOUS	Yes	PROFILE TEXT
L	SECT	SAND	HTCH	1	CONTINUOUS	Yes	SAND SETTING BED
L	SECT	SHRB		1	CONTINUOUS	Yes	SHRUB
L	SECT	TEXT		212	CONTINUOUS	Yes	SECTION TEXT
L	SECT	TREE	BYND	135,135,135	CONTINUOUS	Yes	TREE IN BACKGROUND
L	SECT	TREE	EVRG	5	CONTINUOUS	Yes	EVERGREEN TREE
L	SECT	TREE	_ORN	46	CONTINUOUS	Yes	ORNAMENTAL TREE
L	SECT	TREE		1	CONTINUOUS	Yes	CANOPY TREE
L	SITE	BLDG	ABVE	212	DASHED	Yes	BUILDING ABOVE OUTLINE
L	SITE	BLDG	HTCH	135,135,135	CONTINUOUS	Yes	BUILDING FILL
L	SITE	BLDG	SHDW	175,175,175	CONTINUOUS	Yes	BUILDING SHADOW
L	SITE	BLDG		4	CONTINUOUS	Yes	BUILDING OUTLINE
L	SITE	CONC	ACNT	127,63,63	CONTINUOUS	Yes	CONCRETE ACCENT BAND
L	SITE	CONC	HTCH	135,135,135	CONTINUOUS	Yes	CONCRETE FILL
L	SITE	CONC		5	CONTINUOUS	Yes	AREA TO RECEIVE CONCRETE
L	SITE	_HDR		135,135,135	CONTINUOUS	Yes	HEADER (FLUSH CURB)
L	SITE	LAWN	HTCH	178,204,102	CONTINUOUS	Yes	LAWN FILL
L	SITE	LAWN		255,191,127	CONTINUOUS	Yes	AREA TO RECEIVE LAWN
L	SITE	LDSP	HTCH	223,255,127	CONTINUOUS	Yes	LANDSCAPE FILL
L	SITE	LDSP		46	CONTINUOUS	Yes	LANDSCAPED AREA
L	SITE	MISC	HTCH	90,90,90	CONTINUOUS	Yes	MISCELLANEOUS HATCH
L	SITE	PRNL	HTCH	1	CONTINUOUS	Yes	PERENNIAL FILL
L	SITE	PRNL	SHDW	175,175,175	CONTINUOUS	Yes	PERENNIAL SHADOW
L	SITE	PRNL		212	CONTINUOUS	Yes	AREA TO RECEIVE PERENNIALS

L	SITE	SHRB	HTCH	1	CONTINUOUS	Yes	SHRUB FILL
L	SITE	SHRB	SHDW	175,175,175	CONTINUOUS	Yes	SHRUB SHADOW
L	SITE	SHRB		212	CONTINUOUS	Yes	AREA TO RECEIVE SHRUBS
L	SITE	SSPL	HTCH	90,90,90	CONTINUOUS	Yes	SALT SPLASH FILL
L	SITE	SSPL		1	CONTINUOUS	Yes	AREA TO RECEIVE SALT SPLASH
L	SITE	TREE	SHDW	175,175,175	CONTINUOUS	Yes	TREE SHADOW
L	SITE	TREE	CNPY	1	CONTINUOUS	Yes	CANOPY TREE
L	SITE	TREE	EVER	1	CONTINUOUS	Yes	EVERGREEN TREE
L	SITE	TREE	_ORN	5	CONTINUOUS	Yes	ORNAMENTAL TREE
L	SITE	WATR	_HVY	127,255,255	CONTINUOUS	Yes	HEAVY WATER FILL
L	SITE	WATR	LGHT	127,255,255	CONTINUOUS	Yes	LIGHT WATER FILL
L	SITE	WATR	_MED	102,204,204	CONTINUOUS	Yes	MEDIUM WATER FILL
L	SITE	WETL	CHAN	102,178,204	CONTINUOUS	Yes	CHANNEL
L	SITE	WETL	_IVA	102,204,0	CONTINUOUS	Yes	IVA WETLAND PLANTS
L	SITE	WETL	SPAR	255,223,127	CONTINUOUS	Yes	SPARTINA
L	XREF	_BDR		7	CONTINUOUS	Yes	XREF BORDER AND ATTRIBUTES
L	XREF	CLIP		7	CONTINUOUS	Yes	XCLIP
L	XREF	CURB		7	CONTINUOUS	Yes	XREF CURBS
L	XREF	_DTL		7	CONTINUOUS	Yes	XREF DETAILS
L	XREF	SCRN		7	CONTINUOUS	Yes	XREF OF SCREENED BACKGROUND
L	XREF	NOTE		7	CONTINUOUS	Yes	XREF SPECS AND NOTES
L	XREF	SECT		7	CONTINUOUS	Yes	XREF SECTIONS
L	XREF	SITE		7	CONTINUOUS	Yes	XREF SITE PLAN

1.16.3 LINETYPES

Name	Description	Example
CENTER	Centerline (1x)	
CENTER5	Centerline (0.20x)	
Continuous	Continuous	
DASHDOT	Dashdot (1x)	
DASHDOT4	Dashdot (0.25x)	
DASHED	Dashed (1x)	
DASHED2	Dashed (0.50x)	
DASHED4	Dashed (0.25x)	
DASHED5	Dashed (0.20x)	
DASHEDX2	Dashed (2x)	
DIVIDE2	Divide (0.50x)	
DIVIDE4	Divide (0.25x)	

Name	Description	Example
DOT2	Dot (0.50x)	
DOT4	Dot (0.25x)	
DOT5	Dot (0.20x)	
DOT8	Dot (0.125x)	
FENCE	Fence (1x)	
HIDDEN	Hidden (1x)	
HIDDEN2	Hidden (0.50x)	
HIDDEN4	Hidden (0.25x)	
HIDDEN5	Hidden (0.20x)	
HIDDEN-3_TO_3	Hidden (1.5x)	
HIDDENX2	Hidden (2x)	
PHANTOM4	Phantom (0.25x)	
PHANTOM5	Phantom (0.20x)	

1.16.4 SYMBOLS

1.16.4.1 DRAFTING CONVENTIONS

Symbol	Block Name	Layer Name	Description
	22x34PSG.dwg	Varies	22 x 34 Layout Guide
	ABBREV_1.dwg	Varies	List of Abbreviations and Symbols
	ARROW.dwg	Varies	Arrow Head
	BREAK.dwg	Varies	Break Line
	CLINE.dwg	Varies	Center Line
	COLNO.dwg	Varies	Column Number for Contract Drawings
	COLNOE.dwg	Varies	Column Number for Existing Columns
	COLNOP.dwg	Varies	Column Number for Presentation Drawings
	DETNO2.dwg	Varies	Contract Drawing Label – No Scale Bar
	DETNO3.dwg	Varies	Presentation Drawing Label
	DETNO.dwg	Varies	Contract Drawing Label
	DETNODBL.dwg	Varies	Double Contract Drawing Label
	DETNO-SM.dwg	Varies	Contract Drawing Label – Condensed
	DIMGUIDE.dwg	Varies	Guideline Used with Dimensions for Contract Drawings
	DOORNO.dwg	Varies	Door Number
	EXIT-1WAYDIR.dwg	Varies	Directional Exit Sign
	EXIT-2WAYDIR.dwg	Varies	Multi-Directional Exit Sign
	EXIT.dwg	Varies	Exit Sign
	EXIT-DBL-1WAYDIR.dwg	Varies	Double-Sided Directional Exit Sign

	EXIT-DBL-2WAYDIR.dwg	Varies	Double-Sided Multi-Directional Exit Sign
	EXIT-DBL.dwg	Varies	Double-Sided Exit Sign
	INSUL.dwg	Varies	Insulation
	INT-ELEV.dwg	Varies	Interior Elevation
	LEVELINE.dwg	Varies	Level Line
	LOCALSEC.dwg	Varies	Presentation Section Mark
	OUTLET.dwg	Varies	Electric Outlet
	PARTTYPE.dwg	Varies	Partition/Wall Type
	RETURN.dwg	Varies	Mechanical Return Duct Symbol
	REV-NO.dwg	Varies	Revision Tag
	RM-NO.dwg	Varies	Room Number
	SPEAKER.dwg	Varies	Speaker
	SPNKHD.dwg	Varies	Sprinkler Head
	SUPPLY.dwg	Varies	Mechanical Supply Duct
	TARG1.dwg	Varies	Detail/Section/Elevation Label
	TARGELEV.dwg	Varies	Elevation Symbol
	TARGSEC.dwg	Varies	Complete Section Symbol
	TARGSECHEAD.dwg	Varies	Section Head Symbol
	TARGSECTAIL.dwg	Varies	Section Tail Symbol
	W-ARROW.dwg	Varies	Presentation Arrow
	WIN-NO.dwg	Varies	Window Type

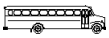
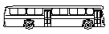
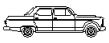
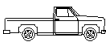
1.16.4.2 2D PEOPLE

Symbol	Block Name	Layer Name	Description
	MAN01.dwg	Varies	Man Standing
	MAN02.dwg	Varies	Man Walking
	MAN03.dwg	Varies	Man Sitting
	MAN04.dwg	Varies	Man Standing – Back View
	MAN05.dwg	Varies	Man Standing – Side View
	MAN06.dwg	Varies	Man Walking 2
	MAN07.dwg	Varies	Man Standing 2
	MAN08.dwg	Varies	Man Outline
	PEOPLE01.dwg	Varies	Man and Woman Walking
	PEOPLE02.dwg	Varies	Man and Woman Walking 2
	PEOPLE03.dwg	Varies	Two Women Walking

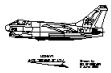
	PEOPLE04.dwg	Varies	Man and Woman Standing
	PEOPLE05.dwg	Varies	Father and Child
	PEOPLE06.dwg	Varies	Mother and Daughter
	PEOPLE07 dwg	Varies	Two Men Standing
	PEOPLE08.dwg	Varies	Two Men Side View
	PEOPLE09.dwg	Varies	Outline – Three People
	PEOPLE10.dwg	Varies	People Waiting to Get on Bus
	WOMAN01.dwg	Varies	Woman Telling Time
	WOMAN02.dwg	Varies	Woman Walking
	WOMAN03.dwg	Varies	Woman Walking 2
	WOMAN04.dwg	Varies	Woman Standing
	WOMAN05.dwg	Varies	Woman Lying Down

	WOMAN06.dwg	Varies	Woman Outline 1
	WOMAN07.dwg	Varies	Woman Outline 2

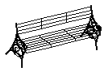
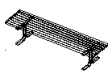
1.16.4.3 2D VEHICLES

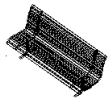
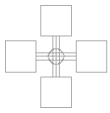
Symbol	Block Name	Layer Name	Description
	02EBUS01.dwg	Varies	School Bus
	02EBUS02.dwg	Varies	City Bus
	02ECAR01.dwg	Varies	Hatchback Car
	02ECAR02.dwg	Varies	Sedan Car
	02ECAR04.dwg	Varies	Classic Car
	02ECAR06.dwg	Varies	Flatbed Pickup Truck
	02ECAR08.dwg	Varies	Porsche
	02ECAR09.dwg	Varies	Porsche with Spoiler
	02ECAR10.dwg	Varies	Lotus Espirit
	02ECAR11.dwg	Varies	Sports Car
	02ECAR12.dwg	Varies	Car Sedan

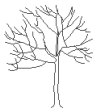
	02ECAR14.dwg	Varies	Old Car
	02ECAR19.dwg	Varies	Lamborghini
	02ECAR21.dwg	Varies	Eurovan
	bus1.dwg	Varies	Minibus
	bus03-cross-country-bus.dwg	Varies	Cross-Country Bus
	BUS-2.DWG	Varies	City Bus 3
	BUS.DWG	Varies	City Bus 2
	BUS-F.dwg	Varies	Bus – Front View
	BUS-pl.dwg	Varies	Bus and Taxi – Top View
	car03-mercedes-benz.dwg	Varies	Mercedes-Benz – Side View
	car05-station-wagon.dwg	Varies	Station Wagon
	car07-vette.dwg	Varies	Chevrolet Corvette
	car13-police-car.dwg	Varies	Police Cruiser
	car20-bmw3251.dwg	Varies	BMW 325i

	car22-sedan.dwg	Varies	Midsize Sedan
	CARB.DWG	Varies	Car – Front View
	CAREL.DWG	Varies	Sports Car – Side View
	CORSAIR2.DWG	Varies	Corsair Jet
	mercedes-front.dwg	Varies	Mercedes-Benz – Front View
	minibus.dwg	Varies	Minibus – Multiple Views
	MOTORCY.dwg	Varies	Motorcycle
	PTRUCK-2.DWG	Varies	Pickup Truck with Plexiglas Cover
	TAXI-F.dwg	Varies	Taxi
	TRUCKPL.dwg	Varies	Truck – Top View
	volkswagen.dwg	Varies	Volkswagen Beetle

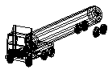
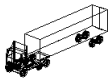
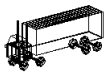
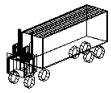
1.16.4.4 3D SITE AMENITIES

Symbol	Block Name	Layer Name	Description
	3DBENC1.dwg	Varies	3D Bench 1
	3DBENC2.dwg	Varies	3D Bench 2

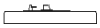
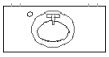
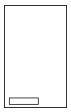
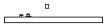
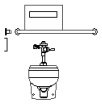
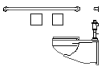
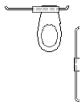
	3DBENC3.dwg	Varies	3D Bench 3
	3DBENC4.dwg	Varies	3D Bench 4
	3DDECI1.dwg	Varies	3D Deciduous Tree 1
	3DDECI2.dwg	Varies	3D Deciduous Tree 2
	3DDECI3.dwg	Varies	3D Deciduous Tree 3
	3DDECI4.dwg	Varies	3D Deciduous Tree 4
	3DEVERG2.dwg	Varies	3D Evergreen Tree 1
	3DEVERG.dwg	Varies	3D Evergreen Tree 2
	lamppost.dwg	Varies	Lamppost
	SHRUB-1.dwg	Varies	Shrub 1
	SHRUB-2.dwg	Varies	Shrub 2
	SHRUB-3.dwg	Varies	Shrub 3
	STLIGH-1.dwg	Varies	Street Light
	TREE-1.dwg	Varies	Tree 1

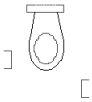
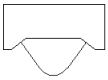
	TREE-1A.dwg	Varies	Tree 1a
	TREE-3.dwg	Varies	Tree 3
	TREE-4.dwg	Varies	Tree 4
	TREE-5.dwg	Varies	Tree 5
	TREE-6.dwg	Varies	Tree 6
	TREESC-1.dwg	Varies	Tree 7

1.16.4.5 3D VEHICLES

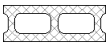
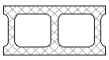
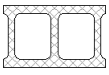
Symbol	Block Name	Layer Name	Description
	3DTRCK2.dwg	Varies	3D Truck
	3DTRCK3.dwg	Varies	3D Truck 2
	3DTRCK4.dwg	Varies	3D Truck 3
	3DTRCK5.dwg	Varies	3D Truck 4
	3DTRCK.dwg	Varies	3D Truck 5
	bus.dwg	Varies	Bus
	ferry-boat.dwg	Varies	Ferry Boat

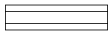
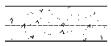
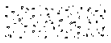
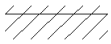
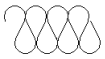
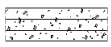
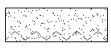
1.16.4.6 FIXTURES

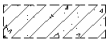
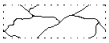
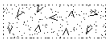
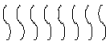
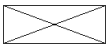
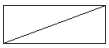
Symbol	Block Name	Layer Name	Description
	LAV4-frt.dwg	A-EQPM-FIXT	Four-Sink Lavatory – Front View
	LAV4-top.dwg	A-EQPM-FIXT	Four-Sink Lavatory – Top View
	LAV-frt.dwg	A-EQPM-FIXT	Lavatory – Front View
	LAV-sid.dwg	A-EQPM-FIXT	Lavatory – Side View
	LAV-TOP.dwg	A-EQPM-FIXT	Lavatory – Top View
	MIRR1.dwg	Varies	Horizontal Mirror
	MIRR2.dwg	Varies	Vertical Mirror
	NAP-FRT.dwg	Varies	Front Elevation of Napkin Dispenser (Female)
	NURS-FRT.dwg	Varies	Nursing Station – Front View
	NURS-TOP.dwg	Varies	Nursing Station – Top View
	TOIL1-frt.dwg	A-EQPM-FIXT	Toilet – Front View
	TOIL1-sid.dwg	A-EQPM-FIXT	Toilet – Side View
	TOIL1-top.dwg	A-EQPM-FIXT	Toilet – Top View
	TOIL2-frt.dwg	A-EQPM-FIXT	Toilet 2 – Front View

	TOIL2-sid.dwg	A-EQPM-FIXT	Toilet 2 – Side View
	TOIL2-top.dwg	A-EQPM-FIXT	Toilet 2 – Top View
	TOWEL.dwg	Varies	Towel Dispenser
	URI-frt.dwg	A-EQPM-FIXT	Urinal – Front View
	URI-sid.dwg	A-EQPM-FIXT	Urinal – Side View
	URI-top.dwg	A-EQPM-FIXT	Urinal – Top View

1.16.4.7 MATERIAL CONVENTIONS

Symbol	Block Name	Layer Name	Description
	CARPET.dwg	A-FLOR-PATT	Carpet
	CEILING.dwg	Varies	Ceiling
	CMU04.dwg	Varies	4-Inch Glazed Brick Masonry
	CMU06.dwg	Varies	6-Inch Glazed Brick Masonry
	CMU08.dwg	Varies	8-Inch Glazed Brick Masonry
	CMU10.dwg	Varies	10-Inch Glazed Brick Masonry
	COARSE.dwg	Varies	Coarse, Pourus Fill

	CONC01.dwg	Varies	Concrete
	CONC02.dwg	Varies	4-Inch Concrete
	DECKTOP2.dwg	Varies	Metal Deck and Concrete Topping Longitudinal Cross-Section
	DECKTOP.dwg	Varies	Metal Deck and Concrete Topping Cross-Section
	EARTH.dwg	Varies	Earth
	FINE.dwg	Varies	Fine, Porous Fill
	GLAZE-B.dwg	Varies	Glazed Brick Masonry
	GYPBD.dwg	Varies	Gypsum Board
	H-REIN.dwg	Varies	Horizontal Concrete Reinforcement
	INSUL.dwg	Varies	BATT Insulation
	MTLDECK.dwg	Varies	Metal Deck Cross Section
	PARTICLE.dwg	Varies	Particleboard
	PLASTER.dwg	Varies	Lath and Plaster
	PLYWOOD1.dwg	Varies	Millwork Plywood

	PLYWOOD2.dwg	Varies	Plywood
	PRECONC.dwg	Varies	Pre-Cast Concrete
	RESIL.dwg	Varies	Resilient Flooring
	RKTMP.dwg	Varies	???
	STONE.dwg	Varies	Cut Stone
	TERRAZZO.dwg	Varies	Terrazzo
	TILE.dwg	Varies	Ceramic Tile
	WDBLOCK.dwg	Varies	Wood Blocking
	WDSHIM.dwg	Varies	Wood Shim
	WOOD.dwg	Varies	Wood

1.16.5 CONTENT PREFERENCES

The following represents examples of the file structure and naming conventions used by the Architectural Unit.

Use this template to begin the file structure for your projects on the server. It does not include every instance of every drawing type, but it provides for the drawings types most commonly used in the Architectural/Landscape Unit. The file structure and or naming should not conflict with the current CAD Standards.

1.16.6 MODEL FOLDER FILE TYPES

MODEL FILETYPE	
AN01 = COORDINATE GRID	LP06 = LANDSCAPE ENLARGED PLANS
AN02 = GENERAL	MIS01 = SITE
AN03 = SCHEDULES	MIS02 = COLUMN GRIDS
AN04 = REFERENCE	MIS03 = EXISTING CONDITIONS
DAT01 = MICROSOFT OFFICE DOCUMENTS	MIS04 = MECHANICAL (use for Schemes, Presentations & Stage I only)
DTL00 = ENLARGED PLANS	MIS05 = ELECTRICAL (use for Schemes, Presentations & Stage I)
DTL01 = EXTERIOR WALL DETAILS	MIS06 = OTHER AGENCY (NYCT, NYSDOT, LMDC, NJT, ETC)
DTL02 = INTERIOR WALLS DETAILS	MIS07 = CIVIL (use for Schemes, Presentations & Stage I only)
DTL03 = INTERIOR FINISH DETAILS	MIS08 = PLUMBING (use for Schemes, Presentations & Stage I only)
DTL04 = CEILING AND SOFFIT DETAILS	MIS09 = STRUCTURAL (use for Schemes, Presentations & Stage I only)
DTL05 = ROOFAND SKYLIGHT DETAILS	MIS10 = LANDSCAPE
DTL06 = COLUMN ENCLOSURE DETAILS	MIS11 = ARCHITECTURAL (for Landscape use)
DTL07 = STAIR and STAIR LIFT DETAILS	MIS12 = TRAFFIC (use for Schemes, Presentations & Stage I only)
DTL08 = ELEVATOR AND WHEELCHAIR LIFT DETAIL	MIS13 = GEOTECHNICAL (use for Schemes, Presentations & Stage I only)
DTL09 = ESCALATOR AND MOVING WALKWAY DETAILS	MIS14 = TEMPORARY FACILITIES
DTL10 = TOILET DETAILS	MIS15 = CONFLICTS
DTL11 = SECURITY AND PEDESTRIAN CONTROLS	MIS16 = CONSTRUCTION STAGING
DTL12 = SITE FURNITURE	MIS17 thru MIS99 = USER DEFINED
DTL13 = WAYFINDING	RCP01 = REFLECTED CEILING PLANS
DTL14 = MISCELLANEOUS DETAILS	RP01 = ROOF PLANS
DTL15 thru DTL19 = USER DEFINED	SEC01 = CROSS SECTIONS
DTL20 thru DTL29 = LANDSCAPE DETAILS	SEC02 = LONGITUDINAL SECTIONS
DTL30 thru DTL99 = USER DEFINED	SEC03 = LANDSCAPE SECTIONS
EL01 = EXTERIOR ELEVATIONS	
FP01 = FLOOR PLANS	CB = CONTRACT BORDER
FPW01 = FLOOR PLAN WALLS	PB01 = PRESENTATION BORDER 34x44 PORTRAIT
IEL01 = INTERIOR ELEVATONS	PB02 = PRESENTATION BORDER 34x44 LANDSCAPE
IMG01= GRAPHIC IMAGES	PB03 = PRESENTATION BORDER 34x67
IMG02 = 3D DRAWINGS	PB04 = PRESENTATION BORDER ANNOTATION BLOCKS
IMG03 = SCANNED IMAGES	
IMG04 = USER DEFINED	SK01 = SKETCH BORDER
LP00 = LANDSCAPE OVERALL PLANS	AN05 = BORDER KEY PLAN

LP01 = LANDSCAPE PLANTING PLANS	AN06 = BORDER KEY SECTION
LP02 = LANDSCAPE PAVING/HARDSCAPE PLANS	AN07 = BORDER LEGEND
LP03 = LANDSCAPE GRADING PLANS	
LP04 = LANDSCAPE WETLAND MITIGATION	SKA001 = STAGE IV SKETCHES
LP05 = LANDSCAPE REMOVALS PLANS	

1.16.6.1 ANNOTATION

AN01 = COORDINATE GRID

- Drawings include any drawings related to the project coordinate system
  - NAD83 or NAD27 – should be obtained from Central Survey
- Where **01** represents the Coordinate Grid category
- The drawing description should define the Coordinate system (*keep compact*) followed by [grid–] then scale) Note: use this system if various scales are required
  - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-AN01-NYLIFgrid-048.dwg	Attach to quarter scale drawings
A[PID]-AN01-NYLIFgrid-096.dwg	Attach to eighth scale drawings
A[PID]-AN01-NYLIFgrid-480.dwg	Attach to fortieth scale drawings

AN02 = GENERAL

- Drawings include any drawings related to the project General sheets
  - Includes overall and Architectural sheets
- Where **02** represents the General sheet category
- The drawing description is preceded by [–] (keep compact)
  - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-AN02-RegionMap.dwg	Regional Map
A[PID]-AN02-GeneralNotes.dwg	Project General Notes
A[PID]-AN02-BuildCodeSpecNotes.dwg	Building Code and Specification Notes.

AN03 = SCHEDULES

- Drawings include any information and drawings related to schedules
- Where **03** represents the Schedule category
- The drawing description is preceded by [–] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-AN03-Index.dwg	Index of Drawings
A[PID]-AN03-AbbrevConvention.dwg	List of abbreviations, drawing conventions, Architectural General Notes (for a small project)
A[PID]-AN03-SchedDoor.dwg	Door Schedule

AN04 = REFERENCE

- Drawings include any information and drawings related to schedules
- Where **04** represents the Reference category
- The drawing description is preceded by [–] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-AN04- ReferenceSectCuts.dwg	Section cuts used to layout sections overall/details
A[PID]-AN04-	
A[PID]-AN04-	

1.16.6.2 MICROSOFT OFFICE LINKED FILES

DAT01 = EXCEL FILES

- Drawings include Microsoft Office Excel files.
- Where **01** represents the MS Linked Files category
- User Defined description
  - A drawing description is *optional*, preceded by [–] (*keep compact*)
    - No spaces between words, use a capital letter to separate words
- May be used to replace schedules generated under AN03 category

Filename Example:

A[PID]-DAT01-DwgList.dwg	Index of Drawings
A[PID]-DAT01-Cost.dwg	Cost Estimate

1.16.6.3 DETAILS

DTL00 = ENLARGED PLANS

- Drawings include Enlarged Plans, Sections and Elevations
- Where **00** represents the Enlarged Plan category
- A drawing description is *optional* preceded by [–] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-DTL00- FireCommand-Detail.dwg	Includes enlarged plans, elevations and sections
A[PID]-DTL00- Bathroom-Detail.dwg	Includes enlarged plans, elevations and sections
A[PID]-DTL00- JanitorRoomDetail.dwg	Includes enlarged plans, elevations and sections

DTL01 = EXTERIOR WALL DETAILS

- Drawings include Plan and Section Detail Blow-ups
- Where **01** represents the Exterior Wall category
- Direction
  - WallExt01 = North WallExt03 = East
  - WallExt02 = South WallExt04 = West
- A drawing description is *optional* preceded by [–] (*keep compact*)
  - Where [**01**] represents the number of sheets in ascending order
  - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-DTL01-WallsExt00-GeneralDetl01.dwg	include details common to all exterior walls sheet 1
A[PID]-DTL01-WallsExt01-North01.dwg	Sheet 1
A[PID]-DTL01-WallsExt01-North02.dwg	Sheet 2
A[PID]-DTL01-WallsExt02-South.dwg	
A[PID]-DTL01-WallsExt03-East.dwg	
A[PID]-DTL01-WallsExt04-West.dwg	

DTL02 = INTERIOR WALLS DETAILS

- Drawings include Plan and Section Detail Blow-ups
- Where **02** represents the Interior Wall category
- Direction
  - WallInt01 = North WallInt03 = East
  - WallInt02 = South WallInt04 = West
- A drawing description is *optional* preceded by [–] (*keep compact*)
  - Where [**01**] represents the number of sheets in ascending order
  - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-DTL02-WallsInt00-GeneralDetl01.dwg	include details common to all interior walls sheet 1
A[PID]-DTL02-WallsInt01-North01.dwg	Sheet 1
A[PID]-DTL02-WallsInt01-North02.dwg	Sheet 2
A[PID]-DTL02-WallsInt02-South.dwg	
A[PID]-DTL02-WallsInt03-East.dwg	
A[PID]-DTL02-WallsInt04-West.dwg	

DTL03 = INTERIOR FINISH DETAILS

- Drawings include Plan and Section Detail Blow-ups including but not limited to
  - Floors, furniture, ticket counters/booths, etc.
- Where **03** represents the Interior Finishes category
- A drawing description is *optional* preceded by [–] (*keep compact*)
  - Where [**01**] represents the number of sheets in ascending order
  - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-DTL03-(User defined)01.dwg	Sheet 1
A[PID]-DTL03-(User defined)02.dwg	Sheet 2
A[PID]-DTL03-(User defined)01.dwg	Sheet 1

DTL04 = CEILING AND SOFFIT DETAILS

- Drawings include Plan and Section Detail Blow-ups
- Where **04** represents the Ceiling and Soffit category
- A drawing description is *optional* preceded by [–] (*keep compact*)
  - Where [**01**] represents the number of sheets in ascending order
  - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-DTL04-(User defined)01.dwg	Sheet 1
A[PID]-DTL04-(User defined)02.dwg	Sheet 2
A[PID]-DTL04-(User defined)01.dwg	Sheet 1

DTL05 = ROOFAND SKYLIGHT DETAILS

- Drawings include Plan and Section Detail Blow-ups of roofs
- Where **05** represents the Roof and Skylight category
- A drawing description is *optional* preceded by [–] (*keep compact*)
  - Where [**01**] represents the number of sheets in ascending order
  - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-DTL05-*(User defined)*01.dwg	Sheet 1
A[PID]-DTL05-*(User defined)*02.dwg	Sheet 2
A[PID]-DTL05-*(User defined)*01.dwg	Sheet 1

DTL06 = COLUMN ENCLOSURE DETAILS

- Drawings include Plan, Section and Elevation Detail Blow-ups
- Where **06** represents the Column Enclosure category
- User Defined description
  - Where [**ColsEncl01**] represents the number of sheets in ascending order
  - A drawing description is *optional*, preceded by [–] (*keep compact*)
    - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-DTL06-ColsEncl01-Mezz.dwg	
A[PID]-DTL06-ColsEncl02.dwg	

DTL07 = STAIR and STAIR LIFT DETAILS

- Drawings include Plans, Sections, Elevations and Detail blow-ups
- Where **07** represents the Stair and Stair Lift category
- User Defined description
  - Where [**Stair01**] represents the actual stair number
  - Where [**Lift01**] represents the actual stair lift number
  - A drawing description is *optional*, preceded by [–] (*keep compact*)
    - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-DTL07-Stair00-GeneralDetl01.dwg	include details common to all stairs sheet 1
A[PID]-DTL07-Stair00-GeneralDetl02.dwg	include details common to all stairs sheet 2
A[PID]-DTL07-Stair01.dwg	
A[PID]-DTL07-Stair10-EgressTransitHall.dwg	
A[PID]-DTL07-Lift00-GeneralDetl01.dwg	include details common to all stair lift sheet 1
A[PID]-DTL07-Lift00-GeneralDetl02.dwg	include details common to all stair lift sheet 2
A[PID]-DTL07-Lift01.dwg	
A[PID]-DTL07-Lift10-EgressTransitHall.dwg	

DTL08 = ELEVATOR AND WHEELCHAIR LIFTS DETAIL

- Drawings include Plans, Sections, Elevations and Detail Blow-ups
- Where **08** represents the Elevator and/or Wheelchair Lift category
- User Defined description

Filename Example:

A[PID]-DTL08-Evtr00-GeneralDetl01.dwg	include details common to all elevators sheet 1
A[PID]-DTL08-Evtr10-PassPATH.dwg	
A[PID]-DTL08-Evtr15-PassTransitHall.dwg	
A[PID]-DTL08-Evtr01-ServicePATH.dwg	
A[PID]-DTL08-Wchr00-GeneralDetl01.dwg	include details common to all wheelchair lifts sheet 1
A[PID]-DTL08-Wchr10-PassPATH.dwg	
A[PID]-DTL08-Wchr15-PassTransitHall.dwg	
A[PID]-DTL08-Wchr01-ServicePATH.dwg	

DTL09 = ESCALATOR AND MOVING WALKWAY DETAILS

- Drawings include Plans, Sections, Elevations and Detail blow-ups
- Where **09** represents the Escalator and/or Moving Walkway category
- User Defined description
  - Where [**Escl01**] represents the actual escalator number
  - Where [**Wway01**] represents the actual moving walkway number
  - A drawing description is *optional*, preceded by [–] (*keep compact*)
    - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-DTL09-Escl00-GeneralDetl01.dwg	include details common to all escalators sheet 1
A[PID]-DTL09-Escl00-GeneralDetl02.dwg	include details common to all escalators sheet 2
A[PID]-DTL09-Escl01-.dwg	
A[PID]-DTL09-Escl07.dwg	
A[PID]-DTL09-Wway00-GeneralDetl01.dwg	include details common to all moving walkways sheet 1
A[PID]-DTL09-Wway00-GeneralDetl02.dwg	include details common to all moving walkways sheet 2
A[PID]-DTL09-Wway01-.dwg	
A[PID]-DTL09-Wway07.dwg	

DTL10 = TOILET DETAILS

- Drawings include Plan, Elevation and Section Blow-ups for
  - Toilet room layouts, locker room layouts, shower stalls
- Where **10** represents the Toilet category
- A drawing description is *optional* preceded by [–] (*keep compact*)
  - Where [**01**] represents the number of sheets in ascending order
  - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-DTL10-(User defined)01.dwg	Sheet 1
A[PID]-DTL10-(User defined)02.dwg	Sheet 2
A[PID]-DTL10-(User defined)01.dwg	Sheet 1

DTL11 = SECURITY AND PEDESTRIAN CONTROLS

- Drawings include Plan, Elevation and Section Detail Blow-ups for
  - Control rooms, fire command stations/booths, baggage equipment, bomb security, etc.
- Where **11** represents the Security and Pedestrian Controls category
- A drawing description is *optional* preceded by [–] (*keep compact*)
  - Where [**01**] represents the number of sheets in ascending order
  - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-DTL11-(*User defined*)01.dwg	Sheet 1
A[PID]-DTL11-(*User defined*)02.dwg	Sheet 2
A[PID]-DTL11-(*User defined*)01.dwg	Sheet 1

DTL12 = SITE FURNITURE

- Drawings include Plan, Elevation and Section Detail Blow-ups for
  - Kiosks, canopies, windscreens, street shelters, etc.
- Where **12** represents the Site Furniture category
- A drawing description is *optional* preceded by [–] (*keep compact*)
  - Where [**01**] represents the number of sheets in ascending order
  - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-DTL12-(*User defined*)01.dwg	Sheet 1
A[PID]-DTL12-(*User defined*)02.dwg	Sheet 2
A[PID]-DTL12-(*User defined*)01.dwg	Sheet 1

DTL13 = WAYFINDING

- Drawings include Plan, Elevation and Section Detail Blow-ups for
  - Signage, graphics
- Where **13** represents the Wayfinding category
- A drawing description is *optional* preceded by [–] (*keep compact*)
  - Where [**01**] represents the number of sheets in ascending order
  - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-DTL13-(*User defined*)01.dwg	Sheet 1
A[PID]-DTL13-(*User defined*)02.dwg	Sheet 2
A[PID]-DTL13-(*User defined*)01.dwg	Sheet 1

DTL14 = MISCELLANEOUS DETAILS

- Drawings include Plan, Elevation and Section Detail Blow-ups
- Where **14** represents the Miscellaneous category
- A drawing description is *optional* preceded by [–] (*keep compact*)
  - Where [**01**] represents the number of sheets in ascending order
  - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-DTL14-(*User defined*)01.dwg	Sheet 1
A[PID]-DTL14-(*User defined*)02.dwg	Sheet 2
A[PID]-DTL14-(*User defined*)01.dwg	Sheet 1

DTL15 thru DTL19 = USER DEFINED

- Drawings include Plan, Elevation and Section Detail Blow-ups
- Where **#** represents the User Defined category
- User Defined description
  - A drawing description is *optional*, preceded by [–] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-DTL##-[*UserDefined*]-[*UserDefined*].dwg	
A[PID]-DTL##-[*UserDefined*]-[*UserDefined*].dwg	
A[PID]-DTL##-[*UserDefined*]-[*UserDefined*].dwg	

DTL20 thru DTL29 = LANDSCAPE DETAILS

- Drawings include Plan, Elevation and Section Detail Blow-ups
- Where **#** represents the User Defined Landscape Detail category
- User Defined description
  - A drawing description is *optional*, preceded by [–] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-DTL##-[*UserDefined*]-[*UserDefined*].dwg	
A[PID]-DTL##-[*UserDefined*]-[*UserDefined*].dwg	
A[PID]-DTL##-[*UserDefined*]-[*UserDefined*].dwg	

DTL30 thru DTL99 = USER DEFINED

- Drawings include Plan, Elevation and Section Detail Blow-ups
- Where **#** represents the User Defined category
- User Defined description
  - A drawing description is *optional*, preceded by [–] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-DTL##-[*UserDefined*]-[*UserDefined*].dwg	
A[PID]-DTL##-[*UserDefined*]-[*UserDefined*].dwg	
A[PID]-DTL##-[*UserDefined*]-[*UserDefined*].dwg	

1.16.6.4 EXTERIOR ELEVATIONS

EL01 = EXTERIOR ELEVATIONS

- Drawing include Main Exterior Elevations
- Where **01** represents the Exterior Wall direction and/or location
  - 01 = North 03 = East
  - 02 = South 04 = West
- A drawing description is *optional* preceded by [–] (*keep compact*)
  - Where [**01**] represents the number of sheets in ascending order
  - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-EL01-ViewNorth01.dwg	Exterior elevations looking North Sheet 1
A[PID]-EL01-ViewNorth02.dwg	Exterior elevations looking North Sheet 2
A[PID]-EL02-ViewSouth.dwg	Exterior elevations looking South. Can have multiple sheets
A[PID]-EL03-ViewEast.dwg	Exterior elevations looking East. Can have multiple sheets
A[PID]-EL04-ViewWest.dwg	Exterior elevations looking West. Can have multiple sheets

1.16.6.5 FLOOR PLANS

FP01 = FLOOR PLANS

- Drawings include any major floor plans including but not limited to:
  - Floor plans, finish plans, detail plans (include additional detail to be shown at a larger scale)
- Where **01** represents the floor level in ascending/descending from the first level chosen
  - The drawing description is preceded by [–] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-FP01-StreetLevel-EL326.dwg	Street Level plan
A[PID]-FP01-StreetLevel-EL326Detl01.dwg	Street level plan detail area or sheet 1. can have multiple sheets [represents a detail plan]
A[PID]-FP01-StreetLevelExist-EL326.dwg	Existing Street level plan
A[PID]-FP02-[User Defined]-EL[user defined].dwg	Level 2
A[PID]-FP02-[User Defined]Exist-EL[user defined].dwg	Existing level 2

1.16.6.6 FLOOR PLANS WALLS

FPW01 = FLOOR PLANS WALLS

- Drawings include walls used in the floor plan, finish plan and reflected ceiling plan
  - Where **01** represents the floor level in ascending/descending from the first level chosen
- Number should be correspond to floor plan
  - The drawing description is preceded by [–] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-FPW01-StreetLevel-EL326.dwg	Street Level plan walls
A[PID]-FPW02-[*User Defined*]-EL[*user defined*].dwg	Level 2 plan walls

1.16.6.7 INTERIOR ELEVATIONS

IEL01 = INTERIOR ELEVATIONS

- Drawing include Interior Elevations
- Where **01** represents the Interior Wall direction and/or location
  - 01 = North 03 = East
  - 02 = South 04 = West
- A drawing description is *optional* preceded by [–] (*keep compact*)
  - Where [**01**] represents the number of sheets in ascending order
  - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-IEL01-ViewNorth01.dwg	Interior elevations looking North Sheet 1
A[PID]-IEL01-ViewNorth02.dwg	Interior elevations looking North Sheet 2
A[PID]-IEL02-ViewSouth.dwg	Interior elevations looking South. Can have multiple sheets
A[PID]-IEL03-ViewEast.dwg	Interior elevations looking East. Can have multiple sheets
A[PID]-IEL04-ViewWest.dwg	Interior elevations looking West. Can have multiple sheets

1.16.6.8 GRAPHIC, SCANNED AND 3D IMAGES

IMG01 = GRAPHIC IMAGES

- Drawings include Jpegs, Bmps, Tiffs, etc.
- Where 01 represents the Graphic Images category
- User Defined description
  - A drawing description is optional, preceded by [–] (keep compact)
    - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-IMG01-Sign01.dwg	Signage panel image 1
A[PID]-IMG01-Sign02.dwg	Signage panel image 2

IMG02 = 3D DRAWINGS

- Drawings include any 3D drawings created in CAD
- Where **02** represents the 3D Images category
- User Defined description
  - A drawing description is *optional*, preceded by [–] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-IMG02-3D-PlanEL250.dwg	3D plan for EL. 250
A[PID]-IMG02-3D-*[User Defined]*.dwg	

IMG03 = SCANNED IMAGES

- Drawings include any Scanned images
- Where **03** represents the Scanned Images category
- User Defined description
  - A drawing description is *optional*, preceded by [–] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-IMG03-PlanEL250.dwg	Scanned image of Removals Plan at elevation 250 (*add a description to indicate what the image is used for. ex:Rmvls)*
A[PID]-IMG03-[*User Defined*].dwg	

IMG04 = USER DEFINED

- Drawings include any 3D representations not covered in IMG01 thru IMG03
- Where **04** represents the User Defined category
- User Defined description
  - A drawing description is *optional*, preceded by [–] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-IMG04-[*UserDefined*]-[*UserDefined*].dwg	
A[PID]-IMG04-[*UserDefined*]-[*UserDefined*].dwg	

1.16.6.9 LANDSCAPE

LP00 = OVERALL LANDSCAPE PLANS

- Drawings include any overall Landscape plans
- Where 00 represents the Overall Landscape Plan category
  - The drawing description is preceded by [–] (keep compact)
  - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-LP00-[User Defined]-[User Defined].dwg	
A[PID]-LP00-[User Defined]-[User Defined].dwg	

LP01 = PLANTING PLANS

- Drawings include any planting plans
- Where **01** represents the Planting Plan category
  - The drawing description is preceded by [–] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-LP01-Plant-[*User Defined*].dwg	
A[PID]-LP01-Plant-[*User Defined*].dwg	

LP02 = PAVING/HARDSCAPE PLANS

- Drawings include any Paving and/or Hardscape Landscape plans
- Where **02** represents the Paving/Hardscape Plan category
- The drawing description is preceded by [–] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-LP02-Pave-[*User Defined*].dwg	
A[PID]-LP02-Hard-[*User Defined*].dwg	

LP03 = GRADING PLANS

- Drawings include any Grading Landscape plans
- Where **03** represents the Grading Plan category
- The drawing description is preceded by [–] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-LP03-Grade-[*User Defined*].dwg	
A[PID]-LP03-Grade-[*User Defined*].dwg	

LP04 = WETLAND MITIGATION

- Drawings include any Wetland Mitigation plans
- Where **04** represents the Wetland Mitigation category
- The drawing description is preceded by [–] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-LP02-WetMit-[*User Defined*].dwg	
A[PID]-LP02-WetMit-[*User Defined*].dwg	

LP05 = REMOVALS PLANS

- Drawings include any Landscape Removals plans
- Where **05** represents the Removals category
- The drawing description is preceded by [–] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-LP02-Rmvl-[*User Defined*].dwg	
A[PID]-LP02-Rmvl-[*User Defined*].dwg	

LP06 = ENLARGED PLANS

- Drawings include any Landscape Enlarged plans
- Where **06** represents the Enlarged Plans category
- The drawing description is preceded by [–] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename Example:

A[PID]-LP02-[User Defined]-[User Defined].dwg	
A[PID]-LP02-[User Defined]-[User Defined].dwg	

1.16.6.10 MISCELLANEOUS

MIS01 = SITE

- Drawing include Plans used for background information
- Where **01** represents the Site category
- User Defined description
- A drawing description is *optional*, preceded by [–] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename example:

A[PID]-MIS01-Site-Bldg.dwg	Background buildings
A[PID]-MIS01-Site-Bldg(*user defined*).dwg	Particular background buildings

A[PID]-MIS01-Site-BldgExist.dwg	Existing background buildings
A[PID]-MIS01-Site-CurbExist.dwg	Existing curb

MIS02 = COLUMN GRIDS

- Drawing include plan, section and elevation column grids
- Where **02** represents the Column Grid category
- User Defined description
  - A drawing description is *optional*, preceded by [–] (*keep compact*)
  - Description can be a word description or elevation number
  - No spaces between words, use a capital letter to separate words

Filename example:

A[PID]-MIS02-ColGrid-Plan.dwg	Plan column grid
A[PID]-MIS02-ColGrid-PlanMezz.dwg	Mezzanine level column grid
A[PID]-MIS02-ColGrid-PlanEL276.dwg	Column grid at elevation 276.00’
A[PID]-MIS02-ColGrid-SectCross.dwg	Cross section column grid
A[PID]-MIS02-ColGrid-SectLong.dwg	Longitudinal section column grid
A[PID]-MIS02-ColGrid-Elev.dwg	Elevation column grid

MIS03 = EXISTING CONDITIONS

- Drawing include other Existing Conditions used for background information
- When inserting existing conditions into a drawing, place elements on a layer marked EXST
  - Refer to list on K:\Application\EAD\CAD_Standards\2018\Architectural\Layers
- Where **03** represents the Existing Conditions category
- User Defined description
  - A drawing description is *optional*, preceded by [–] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename example:

A[PID]-MIS03-ArrivExist.dwg	Existing arrivals hall plan
A[PID]-MIS03-[*User Defined*].dwg	
A[PID]-MIS03-WTC-EL250Exist.dwg	WTC existing conditions at El. 250.00’

MIS04 = MECHANICAL

- Use for Pre-Design, Stage 1, Schemes and Presentations. For Stage 2,3 & 4 Xref information from the **Mechanical *PUBLISH*** folder
- Drawing include plans and sections of Mechanical layouts

- Where **04** represents the Mechanical layout category
- User Defined description
  - A drawing description is *optional*, preceded by [**-Mech**] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename example:

A[PID]-MIS04-MechPlan-EL250.dwg	El 250.00' preliminary Mechanical layout
A[PID]-MIS04-Mech[*User Defined*].dwg	

MIS05 = ELECTRICAL

- Use for Pre-Design, Stage 1, Schemes and Presentations. For Stage 2,3 & 4 Xref information from the **Electrical *PUBLISH*** folder
- Drawing include plans and sections of Electrical layouts
- Where **05** represents the Lighting layout category
- User Defined description
  - A drawing description is optional, preceded by [–**Elect**] (keep compact)
  - No spaces between words, use a capital letter to separate words

Filename example:

A[PID]-MIS05-ElectPlan-EL250.dwg	El 250.00' preliminary lighting layout
A[PID]-MIS05-Elect[*User Defined*].dwg	

MIS06 = OTHER AGENCY

- Drawing include other Agency Plans used for background information
- Where **06** represents the Other Agency category
- User Defined description
  - A drawing description is *optional*, preceded by [–] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename example:

A[PID]-MIS06-NYCT-RWConc.dwg	RW Concourse from New York City Transit
A[PID]-MIS06-WFC-Bldg.dwg	World Financial Center Buildings
A[PID]-MIS06-WTC-PkngEL250.dwg	World Trade Center parking layout at elevation 250.00'

MIS07 = CIVIL

- Use for Pre-Design, Stage 1, Schemes and Presentations. For Stage 2,3 & 4 Xref information from the **Civil *PUBLISH*** folder
- Drawing include plans and sections of Civil layouts
- Where **07** represents the Civil layout category
- User Defined description
  - A drawing description is *optional*, preceded by [–Civil] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename example:

A[PID]-MIS07-CivilPlan-EL250.dwg	El 250.00' preliminary Civil layout
A[PID]-MIS07-Civil[*User Defined*].dwg	

MIS08 = PLUMBING

- Use for Pre-Design, Stage 1, Schemes and Presentations. For Stage 2,3 & 4 Xref information from the **Mechanical *PUBLISH*** folder
- Drawing include plans and sections of Plumbing layouts
- Where **08** represents the Plumbing layout category
- User Defined description
  - A drawing description is *optional*, preceded by [–**Plumb**] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename example:

A[PID]-MIS08-PlumbPlan-EL250.dwg	El 250.00' preliminary Plumbing layout
A[PID]-MIS08-Plumb[*User Defined*].dwg	

MIS09 = STRUCTURAL

- Use for Pre-Design, Stage 1, Schemes and Presentations. For Stage 2,3 & 4 Xref information from the **Structural *PUBLISH*** folder
- Drawing include plans and sections of Structural layouts
- Where **09** represents the Structural layout category
- User Defined description
  - A drawing description is *optional*, preceded by [–**Struct**] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename example:

A[PID]-MIS09-StructPlan-EL250.dwg	El 250.00' preliminary Structural layout
A[PID]-MIS09-Struct[*User Defined*].dwg	

MIS10 = LANDSCAPE (for Landscape use only)

- Drawing include Miscellaneous layouts for Landscape
- Where **10** represents the Miscellaneous Landscape layout category
- User Defined description
  - A drawing description is *optional*, preceded by [–] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename example:

A[PID]-MIS10-[User Defined]-[User Defined].dwg	
A[PID]-MIS10-[User Defined]-[User Defined].dwg	

MIS11 = ARCHITECTURAL (for Landscape use only)

- Use for Pre-Design and Stage 1. For Stage 2,3,&4 Xref information from the **Architectural *PUBLISH*** folder
- Drawing include plans and sections of Architectural layouts
- Where **11** represents the Architectural layout category
- User Defined description
  - A drawing description is *optional*, preceded by [–**Arch**] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename example:

A[PID]-MIS11-ArchPlan-EL250.dwg	El 250.00' preliminary Architectural layout
A[PID]-MIS11-Arch[*User Defined*].dwg	

MIS12 = TRAFFIC

- Use for Pre-Design, Stage 1, Schemes and Presentations. For Stage 2,3 & 4 Xref information from the **Traffic *PUBLISH*** folder
- Drawing include plans and sections of Traffic layouts
- Where **12** represents the Traffic layout category
- User Defined description
  - A drawing description is *optional*, preceded by [–**Traf**] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename example:

A[PID]-MIS12-TrafPlan-EL250.dwg	El 250.00' preliminary Traffic layout
A[PID]-MIS12-Traf[*User Defined*].dwg	

MIS13 = GEOTECHNICAL

- Use for Pre-Design, Stage 1, Schemes and Presentations. For Stage 2,3 & 4 Xref information from the **Geotechnical *PUBLISH*** folder
- Drawing include plans and sections of Geotechnical layouts
- Where **13** represents the Geotechnical layout category
- User Defined description
  - A drawing description is *optional*, preceded by [–**Geo**] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename example:

A[PID]-MIS13-GeoPlan-EL250.dwg	El 250.00' preliminary Geotechnical layout
A[PID]-MIS13-Geo[*User Defined*].dwg	

MIS14 = TEMPORARY FACILITIES

- Drawing include plan, section and elevation
- Where **14** represents the Temporary Facilities category
- User Defined description
  - A drawing description is *optional*, preceded by [–] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename example:

A[PID]-MIS14-PlatformEL250.dwg	Temporary Platform at EL 250.00'
A[PID]-MIS14-Stair01.dwg	Temporary Stair No. 1
A[PID]-MIS14-[UserDefined].dwg	

MIS15 = CONFLICTS

- Drawing include plan, section and elevation
- Where **15** represents the Conflicts category
- User Defined description
  - A drawing description is *optional*, preceded by [–] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename example:

A[PID]-MIS15-Conflict-EL250.dwg	El 250.00' conflicts
A[PID]-MIS15-Conflict-CrossSect.dwg	Cross sectional conflicts
A[PID]-MIS15-Conflict-ElevWest.dwg	West elevation conflicts

MIS016 = CONSTRUCTION STAGING

- Drawing include plan, section and elevation
- Where **16** represents the Construction Staging category
- User Defined description
  - A drawing description is *optional*, preceded by [–] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename example:

A[PID]-MIS16-PlanEL250-PH01.dwg	El 250.00' Construction Staging Plan Phase 1
A[PID]-MIS16-PlanEL250-PH02.dwg	El 250.00' Construction Staging Plan Phase 2
A[PID]-MIS16-SectionCross01-PH01.dwg	Construction Staging Cross Section 1 Phase 1
A[PID]-MIS16-SectionCross01-PH02.dwg	Construction Staging Cross Section 1 Phase 2
A[PID]-MIS16-[*UserDefined*]-PH[*Counter*].dwg	

MIS17 thru MIS99 = USER DEFINED

- Drawing include plan, section and elevation
- Where **#** represents the User Defined category
- User Defined description
  - A drawing description is *optional*, preceded by [–] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename example:

A[PID]-MIS##-[*UserDefined*]-[*UserDefined*].dwg	
A[PID]-MIS##-[*UserDefined*]-[*UserDefined*].dwg	
A[PID]-MIS##-[*UserDefined*]-[*UserDefined*].dwg	

1.16.6.11 REFLECTED CEILING PLANS

RCP01 = REFLECTED CEILING PLANS

- Drawings include any major reflected ceiling plans including but not limited to:
  - Detail plans *(include additional detail to be shown at a larger scale)*
- Where **01** represents the floor level in ascending/descending from the first level chosen
  - The drawing description is preceded by [–] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename example:

A[PID]-RCP01-StreetLevel-EL326.dwg	Street Level RCP
A[PID]-RCP01-StreetLevel-EL326Detl01.dwg	Street level RCP detail area or sheet 1. *can have multiple sheets [represents a detail plan]*
A[PID]-RCP01-StreetLevelExist-EL326.dwg	Existing Street level RCP
A[PID]-RCP02-[*User Defined*]-EL[*user defined*].dwg	Level 2 RCP
A[PID]-RCP02-[*User Defined*]Exist-EL[*user defined*].dwg	Existing level 2 RCP

1.16.6.12 ROOF PLANS

RP01 = ROOF PLANS

- Drawings include any major Roof plans including but not limited to:
  - Detail plans (include additional detail to be shown at a larger scale)
- Where **01** represents the floor level in ascending/descending from the first level chosen or a counter if each level DOES NOT have a roof plan
  - The drawing description is preceded by [–] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename example:

A[PID]-RP01-StreetLevel-EL326.dwg	Street Level roof plan
A[PID]-RP01-StreetLevel-EL326Detl01.dwg	Street level roof plan detail area or sheet 1 *[represents a detail plan]*
A[PID]-RP01-StreetLevelExist-EL326.dwg	Existing Street level roof plan
A[PID]-RP02-[*User Defined*]-EL[*user defined*].dwg	Level 2 roof plan
A[PID]-RP02-[*User Defined*]Exist-EL[*user defined*].dwg	Existing level 2 roof plan

1.16.6.13 SECTIONS

SEC01 = CROSS SECTIONS

- Drawing include Overall building sections
- When using a section type **01** represents Cross sections
- A drawing description is *optional* preceded by [–] (*keep compact*)
  - Where [**01**] represents the number of sheets in ascending order
  - No spaces between words, use a capital letter to separate words

Filename example:

A[PID]-SEC01-TermB-Cross-Col01.dwg	Cross section at Terminal B column line 1
A[PID]-SEC01-TermB-Cross-Col25.dwg	Cross section at Terminal B column line 25

Example of a counter:

A[PID]-SEC01-Cross-North01.dwg	Section looking North sheet 1
A[PID]-SEC01-Cross-North02.dwg	Section looking North sheet 2
A[PID]-SEC01-Cross-[*User Defined*].dwg	

SEC02 = LONGITUDINAL SECTIONS

- Drawing include Overall building sections
- When using a section type **02** represents Longitudinal sections
- A drawing description is *optional* preceded by [–] (*keep compact*)
  - Where [**01**] represents the number of sheets in ascending order
  - No spaces between words, use a capital letter to separate words

Filename example:

A[PID]-SEC02-TermB-Long-A.dwg	Longitudinal Section A at Terminal B
A[PID]-SEC02-TermB-Long-Airside.dwg	Longitudinal section at Terminal B airside

Example of a counter

A[PID]-SEC02-Long-East01.dwg	Section looking East sheet 1
A[PID]-SEC02-Long-East02.dwg	Section looking East sheet 2
A[PID]-SEC02-Long-[*User Defined*].dwg	

SEC03 = LANDSCAPE SECTIONS

- Drawing include Overall building sections
- When using a section type **03** represents Landscape sections

- A drawing description is *optional* preceded by [–] (*keep compact*)
  - Where [**01**] represents the number of sheets in ascending order
  - No spaces between words, use a capital letter to separate words

Filename example:

A[PID]-SEC03-[*User Defined*]-[01].dwg	
A[PID]-SEC03-[*User Defined*]-[02].dwg	

1.16.7 PLOTSHEETS FOLDER FILE TYPES

The filenames in the Plotsheets folder should be consistent with the cad standard naming convention.

Use when Drawing Series DOES NOT exceed 9

A[*PID*]-[*Drawing Type*][*Series #*][*Drawing #*].dwg A12345678-A101

A[PID]-[Drawing Type][Series #][Drawing #].dwg A12345678-LS101 (Landscape Only)

Used when Drawing Series exceeds 9

A[*PID*]-[*Drawing Type*][*Series #*][*Drawing #*].dwg A12345678-A0101

A[*PID*]-[*Drawing Type*][*Series #*][*Drawing #*].dwg A12345678-LS0101 (Landscape Only)

When a series system is being used, it would be helpful to create a dummy file to use as a series separator. The following are examples of series separator. The actual series name will vary with the project

The C&P and SSI sheet should be numbered sequentially after the unmarked sheets

Filename example:

TYPICAL DRAWING SET [drawing series 9 or less]

File separators should not be copied to the *SUBMITTALS* folder for CAD reviews

A[PID]-G000 ---- PS PROJECT-GENERAL.dwg	File separator. No data in this file; should be read only
A[PID]-G001.dwg	Title Sheet
A[PID]-G002.dwg	Title Sheet [*CP & SSI Sheets*]
A[PID]-G101.dwg	Index of Drawings
A[PID]-G102.dwg	Index of Drawings [*CP & SSI Sheets*]
A[PID]-G201.dwg	Regional Map and/or Project Map
A[PID]-A100 ---- PS GENERAL.dwg	File separator. No data in this file; should be read only *Includes specification, general and code notes, etc.*
A[PID]-A101.dwg	
A[PID]-A200 ---- PS PLANS.dwg	File separator. No data in this file; should be read only
A[PID]-A201.dwg	
A[PID]-A300 ---- PS SECTIONS.dwg	File separator. No data in this file; should be read only
A[PID]-A301.dwg	
A[PID]-A400 ---- PS ELEVATIONS.dwg	File separator. No data in this file; should be read only
A[PID]-A401.dwg	
A[PID]-A500 ---- PS EXTERIOR DETAILS.dwg	File separator. No data in this file; should be read only *Includes wall sections, wall details, roof details*
A[PID]-A501.dwg	
A[PID]-A600 ---- PS DETAILS.dwg	File separator. No data in this file; should be read only
A[PID]-A601.dwg	
A[PID]-A700 ---- PS SCHEDULES.dwg	File separator. No data in this file; should be read only *Includes Doors, Room, Finish*
A[PID]-A701.dwg	
A[PID]-A800 ---- PS GRAPHICS.dwg	File separator. No data in this file; should be read only
A[PID]-A801.dwg	
A[PID]-A900 ---- PS [User Defined].dwg	File separator. No data in this file; should be read only
A[PID]-A901.dwg	
A[PID]-LS001 ---- PS [User Defined].dwg	File separator. No data in this file; should be read only
A[PID]-LS001.dwg	
A[PID]-LS002.dwg	
A[PID]-LS003.dwg	

TYPICAL DRAWING SET [drawing series exceeding 9]

File separators should not be copied to the *SUBMITTALS* folder for CAD reviews

A[PID]-G0000 ---- PS PROJECT-GENERAL.dwg	File separator. No data in this file; should be read only
A[PID]-G0001.dwg	Title Sheet

A[PID]-G0002.dwg	Title Sheet [*CP & SSI Sheets*]
A[PID]-G0101.dwg	Index of Drawings
A[PID]-G0102.dwg	Index of Drawings [*CP & SSI Sheets*]
A[PID]-G0201.dwg	Regional Map and/or Project Map
A[PID]-A0100 ---- PS GENERAL.dwg	File separator. No data in this file; should be read only *Includes specification, general and code notes, etc.*
A[PID]-A0101.dwg	
A[PID]-A0200 ---- PS PLANS.dwg	File separator. No data in this file; should be read only
A[PID]-A0201.dwg	
A[PID]-A0300 ---- PS SECTIONS.dwg	File separator. No data in this file; should be read only
A[PID]-A0301.dwg	
A[PID]-A0400 ---- PS ELEVATIONS.dwg	File separator. No data in this file; should be read only
A[PID]-A0401.dwg	
A[PID]-A0500 ---- PS EXTERIOR DETAILS.dwg	File separator. No data in this file; should be read only *Includes wall sections, wall details, roof details*
A[PID]-A0501.dwg	
A[PID]-A0600 ---- PS DETAILS.dwg	File separator. No data in this file; should be read only
A[PID]-A0601.dwg	
A[PID]-A0700 ---- PS SCHEDULES.dwg	File separator. No data in this file; should be read only *Includes Doors, Room, Finish*
A[PID]-A0701.dwg	
A[PID]-A0800 ---- PS GRAPHICS.dwg	File separator. No data in this file; should be read only
A[PID]-A0801.dwg	
A[PID]-A0900 ---- PS [User Defined].dwg	File separator. No data in this file; should be read only
A[PID]-A0901.dwg	
A[PID]-A1000 ---- PS [User Defined].dwg	File separator. No data in this file; should be read only
A[PID]-A1001.dwg	
A[PID]-A1100 ---- PS [User Defined].dwg	File separator. No data in this file; should be read only
A[PID]-A1101.dwg	
A[PID]-LS0000 ---- PS [User Defined].dwg	File separator. No data in this file; should be read only
A[PID]-LS0001.dwg	
A[PID]-LS0002.dwg	
A[PID]-LS0003.dwg	

CONSTRUCTION STAGING [drawing series 9 or less]

File separators should not be copied to the *SUBMITTALS* folder for CAD reviews

A[PID]-CS100 ---- PS STAGING GENERAL.dwg	File separator. No data in this file; should be read only
A[PID]-CS101.dwg	

A[PID]-CS200 ---- PS STAGING PLANS.dwg	File separator. No data in this file; should be read only
A[PID]-CS201.dwg	
A[PID]-CS300 ---- PS STAGING SECTIONS.dwg	File separator. No data in this file; should be read only
A[PID]-CS301.dwg	

CONSTRUCTION STAGING [drawing series exceeding 9]

File separators should not be copied to the *SUBMITTALS* folder for CAD reviews

A[PID]-CS0100 ---- PS STAGING GENERAL.dwg	File separator. No data in this file; should be read only
A[PID]-CS0101.dwg	
A[PID]-CS0200 ---- PS STAGING PLANS.dwg	File separator. No data in this file; should be read only
A[PID]-CS0201.dwg	
A[PID]-CS0300 ---- PS STAGING SECTIONS.dwg	File separator. No data in this file; should be read only
A[PID]-CS0301.dwg	

TEMPORARY FACILITIES [drawing series 9 or less]

File separators should not be copied to the *SUBMITTALS* folder for CAD reviews

A[PID]-AT100 ---- PS TEMP FACILITIES GENERAL.dwg	File separator. No data in this file; should be read only
A[PID]-AT101.dwg	
A[PID]-AT200 ---- PS TEMP FACILITIES PLANS.dwg	File separator. No data in this file; should be read only
A[PID]-AT201.dwg	
A[PID]-AT300 ---- PS TEMP FACILITIES SECTIONS.dwg	File separator. No data in this file; should be read only
A[PID]-AT301.dwg	
A[PID]-AT400 ---- PS TEMP FACILITIES DETAILS.dwg	File separator. No data in this file; should be read only
A[PID]-AT401.dwg	

TEMPORARY FACILITIES [drawing series exceeding 9]

File separators should not be copied to the *SUBMITTALS* folder for CAD reviews

A[PID]-AT0100 ---- PS TEMP FACILITIES GENERAL.dwg	File separator. No data in this file; should be read only
A[PID]-AT0101.dwg	
A[PID]-AT0200 ---- PS TEMP FACILITIES PLANS.dwg	File separator. No data in this file; should be read only
A[PID]-AT0201.dwg	
A[PID]-AT0300 ---- PS TEMP FACILITIES SECTIONS.dwg	File separator. No data in this file; should be read only
A[PID]-AT0301.dwg	
A[PID]-AT0400 ---- PS TEMP FACILITIES DETAILS.dwg	File separator. No data in this file; should be read only
A[PID]-AT0401.dwg	

1.16.8 PUBLISH FOLDER FILE TYPES

1.16.8.1 BORDER SHEETS

CB = CONTRACT BORDER SHEET

- Drawings include any drawings related to the project Contract Border
  - Original should be obtained from K:\Application\EAD\CAD_Standards\2018\All_Disciplines\Contract_Borders
  - One Border file should be used by both PANYNJ EAD and their respective Consultants
  - Consultant information should be inserted, as a block, using the pre-defined stamps located on the server K:\Application\EAD\CAD_Standards\2018\All_Disciplines\Contract_Borders\Stamps
  - If your project has been designated CP, insert the CP stamp as a block, as required from (see EAD CAD Standards manual for further usage) K:\Application\EAD\CAD_Standards\2018\All_Disciplines\Contract_Borders\Stamps

Filename example:

[PID]-CB.dwg	Standard contract border – 22x34
[PID]-CB.dwg	Over Size contract border – 34x56
[PID]-CB-Info.dwg	Standard contract border side bar information block
[PID]-CB-Info_OS.dwg	Over Size contract border side bar information block

AN05 = BORDER SHEET KEY PLAN

- Drawings include any drawings related to the project Key plan used for plans
- Where **05** represents the Border Key Plan category
  - The drawing description is preceded by [–] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename example:

A[PID]-AN05-KeyPlan-EL250.dwg	Key plan for EL. 250
A[PID]-AN05-KeyPlan-EL264.dwg	Key plan for EL. 264
A[PID]-AN05-KeyPlan-Arriv.dwg	Key plan for Arrivals Level

AN06 = BORDER SHEET KEY SECTION

- Drawings include any drawings related to the project Key plan used for sections
- Where **06** represents the Border Key Section category
  - The drawing description is preceded by [–] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename example:

A[PID]-AN06-KeySect-EL250.dwg	Key plan for EL. 250
A[PID]-AN06-KeySect-EL264.dwg	Key plan for EL. 264
A[PID]-AN06-KeySect-Arriv.dwg	Key plan for Arrivals Level

AN07 = BORDER SHEET LEGEND

- Drawings include any drawings related to the project Legend used for
  - Construction Staging, Light fixture types, etc.
- Where **07** represents the Border Legend category
  - The drawing description is preceded by [–] (*keep compact*)
  - No spaces between words, use a capital letter to separate words

Filename example:

A[PID]-AN07-LegendStaging.dwg	Legend used for Construction Staging Plans
A[PID]-AN07-LegendStagingSect.dwg	Legend used for Construction Staging Sections
A[PID]-AN07-LegendLights.dwg	Legend used for RCP Plans

PB01 = PRESENTATION BORDER SHEET PORTRAIT

- Drawings include any drawings related to the project Portrait Presentation Border
  - Original should be obtained from K:\Application\EAD\CAD_Standards\2018\All_Disciplines\Contract_Borders\Stamps
- Where **01** represents the Portrait Presentation Border category
- If Border will be used by other disciplines remove the '*Discipline Code*' in front of the PID
- Anticipated use
  - Stage 1 or Pre-Stage 1

Filename example:

A[PID]-PB01-34x44P.dwg	Presentation border – 34x44 Portrait
A[PID]-PB01-34x44PInfo.dwg	Presentation border – 34x44 Portrait information block

PB02 = PRESENTATION BORDER SHEET LANDSCAPE

- Drawings include any drawings related to the project Landscape Presentation Border
  - Original should be obtained from K:\Application\EAD\CAD_Standards\2018\All_Disciplines\Contract_Borders\Stamps
  - Where **02** represents the Landscape Presentation Border category
- If Border will be used by other disciplines remove the '*Discipline Code*' in front of the PID
- Anticipated use
  - Stage 1 or Pre-Stage 1

Filename example:

A[PID]-PB02-34x44L.dwg	Presentation border – 34x44 Landscape
A[PID]-PB02-34x44LInfo.dwg	Presentation border – 34x44 Landscape information block

PB03 = PRESENTATION BORDER SHEET OVERSIZE

- Drawings include any drawings related to the project Oversized Presentation Border

Original should be obtained from K:\Application\EAD\CAD_Standards\2018\All_Disciplines\Contract_Borders\Stamps

- Where **03** represents the Oversize Presentation Border category

- If Border will be used by other disciplines remove the '*Discipline Code*' in front of the PID
- Anticipated use
  - Stage 1 or Pre-Stage 1

Filename example:

A[PID]-PB03-34x67.dwg	Presentation border – 34x67
A[PID]-PB03-34x67Info.dwg	Presentation border – 34x67 Landscape information block
A[PID]-PB03-34X??.dwg	Presentation border – 34x varied size (*will not be available on the L:/drive – custom size*)
A[PID]-PB03-34X??Info.dwg	Presentation border – 34x varied size information block (*will not be available on the L:/drive – custom size*)

PB04 = PRESENTATION BORDER ANNOTATION

- Drawings include any annotation drawings related to the project Presentation Border
  - Original should be obtained from location designated by Task Leader
- Drawing should be inserted into border file as a block using a designated point, indicated in drawing, **not** 0,0
- Where **04** represents the Presentation Border Annotation category
- If Border will be used by other disciplines remove the '*Discipline Code*' in front of the PID
- Anticipated use
  - Stage 1 or Pre-Stage 1

Filename example:

A[PID]-PB04-Date.dwg	Presentation border date file
A[PID]-PB04-Disclaimer.dwg	Presentation disclaimer file (*uses' WIPEOUT' command) if needed*
A[PID]-PB04-Legend.dwg	Presentation program legend (*uses' WIPEOUT' command*)

SK01 = SKETCH BORDER SHEET

- Drawings include any drawings related to the project Sketch Border
  - Original should be obtained from

    K:\Application\EAD\CAD_Standards\2018\All_Disciplines\Contract_Borders\Stamps
- Where **01** represents the Sketch Border category
- Anticipated use
  - During Stage 2 or 3 when design sketches are required. These borders have the same viewport as the Standard and Oversize Contract Borders. This will allow an easy transition into the contract format once the sketch has been approved.

- These Plotsheets should not be copied to the *SUBMITTALS* folder for CAD reviews

Filename example:

A[PID]-SKA01.dwg	Standard sketch border – 22x34
A[PID]-SKA01.dwg	Over Size sketch border – 34x56
A[PID]-SKA01-Info.dwg	Standard sketch border side bar information block
A[PID]-SKA01-Info_OS.dwg	Over Size sketch border side bar information block

1.16.9 STAGE IV FILE TYPES

1.16.9.1 SKETCHES

SK = STAGE IV DRAWING

- Drawings include any drawings related to the project Stage IV
  - Original should be obtained from K:\Application\EAD\CAD_Standards\2018\All_Disciplines\Contract_Borders
  - Server location of sketches to be *M:\FACILITY\PID\Architectural\SCHEMES\Stage 4\Sketches*
  - Where [**001**] represents the number of sheets in ascending order
  - Where [**A**] represents multiple sheets in sketch drawing
  - No spaces between words, use a capital letter to separate words
- Anticipated use:
  - Responses to RFIs
  - Clarification for shop drawing submittals
  - Discipline coordination
- Drawing should be self-contained, drawing and border in one file.
  - Drawing information should be E-Transmitted, as a bound file, from the *MODEL* or *PLOTSHEETS* folder to the designated *sketch* or *RFI Response* folder.
  - Border should be inserted, as a block, into Paper Space of the sketch
- Create a PDF to be placed in the MANAGEMENTDOCS Folder for submission to Document Control along with or as your RFI response
  - *M:\FACILITY\PID\Architectural\MANAGEMENTDOCS\Stage-4\SubmittalsPDFsRFIsRFQs\Sketches*
- These Plotsheets should not be copied to the *SUBMITTALS* folder for CAD reviews

Filenames from server:

Border - ANSI A - Horizontal.dwg	8 ½" x 11" Landscape Sketch Border
Border - ANSI A - Vertical.dwg	8 ½" x 11" Portrait Sketch Border
Border - ANSI B - Horizontal.dwg	11" x 17" Landscape Sketch Border

Border - ANSI B - Vertical.dwg	11” x 17” Portrait Sketch Border
Border – 22 x 34.dwg	22” x 34” Sketch Border
Border – 34 x 56.dwg	34” x 56” Sketch Border

Filename Example: for [**DWG**] files

A[PID]-SKA001-[*User Defined*].dwg	First drawing in Stage IV Sketch set
A[PID]-SKA032A-[*User Defined*].dwg	32nd drawing in Stage IV Sketch set requiring more than one sketch

Filename Example: for [**PDF**] files

A[PID]-SKA001_TransNo00229.pdf	Clarification sketch issued with a shop drawing submittal return
A[PID]-SKA029_6BRFINo30.pdf	Clarification sketch issued with a RFI response
A[PID]-SKA032_6B-AltEntryLayoutCoord.pdf	Sketch issued for discipline coordination

1.16.9.2

Filename example: for [**DWG**] FILES - SHEET vs. SERVER

The **zero** in the server file name is to sort the drawings in ascending order on the server. The zero is **not** required for the drawing number on the plot sheet.

SERVER FILE NAME	DRAWING NUMBER ON PLOT SHEET
A[PID]-SKA001-[*User Defined*].dwg	
A[PID]-SKA029-[*User Defined*].dwg	
A[PID]-SKA032A-[*User Defined*].dwg	
A[PID]-SKA110-[*User Defined*].dwg	

1.17 APPENDIX B – CIVIL DISCIPLINE

1.17.1 CONTENT PREFERENCES

This Section Is Under Construction

1.17.2 LAYER STRATAGEM

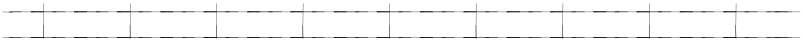
1.17.2.1 CIVIL WORK

DISCIPLINE	MAJOR	MINOR	DESC	COLOR	LINETYPE	PLOTS	DESCRIPTION
C	ALGN	BRNG		131	Continuous	Yes	BEARINGS
C	ALGN	COGO		100	Continuous	Yes	COORDINATE GEOMETRY INFORMATION
C	ALGN	CRVE		131	Continuous	Yes	CURVE NUMBERS
C	ALGN	DIMS		100	Continuous	Yes	ALIGNMENT DIMENSIONS
C	ALGN	GAGE		131	Continuous	Yes	GAUGE LINE, TRACK
C	ALGN	HOR_	EDGE	131	Continuous	Yes	ROAD/TAXIWAY/RUNWAY EDGE ALIGNMENTS
C	ALGN	HOR_	TEMP	131	Continuous	Yes	TEMPORARY CENTERLINE, HORIZONTAL ALIGNMENT
C	ALGN	NOTE		121	Continuous	Yes	ALIGNMENT ANNOTATIONS AND NOTES
C	ALGN	PCPT		100	Continuous	Yes	PC/PT/PCC/PRC/POC BUBBLES AND TEXT
C	ALGN	PROF	GRID	251	Continuous	Yes	PROFILE GRID
C	ALGN	PROP		100	Phantom2	Yes	PROPERTY LINES AND TEXT
C	ALGN	ROWL		131	Phantom	Yes	RIGHT OF WAY LINES AND TEXT
C	ALGN	STAT		100	Continuous	Yes	ALIGNMENT STATIONS AND TEXT
C	ALGN	SWCH		100	Continuous	Yes	POINT OF SWITCH
C	ALGN	TPRD		131	Continuous	Yes	TEMPORARY ROAD ALIGNMENTS
C	ALGN	TRAK		131	RR	Yes	TRACK ALIGNMENT
C	ALGN	TRAK	GAGE	131	RR	Yes	GAUGE LINE, TRACK
C	ALGN	TRAK	SWCH	131	RR	Yes	POINT OF SWITCH
C	ALGN	TRAK	VERT	131	RR	Yes	TOP OF RAIL
C	ALGN	VERT		131	Continuous	Yes	TOP AT RAIL
C	ANNO	CHNG		92	Divide	Yes	IDENTIFICATION OF UPDATED WORK
C	ANNO	COGO	GRID	252	Continuous	Yes	COORDINATE GEOMETRY GRID
C	ANNO	CONS		30	Continuous	Yes	CONSTRUCTION LINES
C	ANNO	DIMS		1	Continuous	Yes	DIMENSIONS
C	ANNO	LGND		121	Continuous	Yes	LEGEND ITEMS
C	ANNO	MTCH		172	Continuous	Yes	MATCH LINE
C	ANNO	NARW		121	Continuous	Yes	NORTH ARROW
C	ANNO	NOTE		121	Continuous	Yes	NOTES
C	ANNO	REVS		220	Continuous	Yes	REVISION BUBBLE AND TRIANGLE
C	ANNO	SCLE		121	Continuous	Yes	SCALE BAR
C	ANNO	TABL		131	Continuous	Yes	CURVE DATA TABLE, DRAINAGE TABLE, ETC
C	ANNO	TEXT		100	Continuous	Yes	MISC. TEXT & CALLOUTS WITH ASSOC. LEADERLINES
C	ANNO	TITL		172	Continuous	Yes	TITLES
C	ANNO	VPRT		200	Continuous	Yes	VIEW PORT
C	DETL			131	Continuous	Yes	DETAIL FEATURES
C	DETL	DIMS		100	Continuous	Yes	DETAIL DIMENSIONS
C	DETL	NOTE		121	Continuous	Yes	DETAIL NOTES AND ANNOTATIONS
C	GRAD	COGO		121	Continuous	Yes	GRADING COORDINATE GEOMETRY
C	GRAD	DIMS		100	Continuous	Yes	GRADING DIMENSIONS
C	GRAD	INDX		220	Continuous	Yes	INDEX CONTOURS
C	GRAD	INTR		92	Continuous	Yes	INTERMEDIATE CONTOURS
C	GRAD	LIMT		13	Continuous	Yes	LIMIT OF GRADING
C	GRAD	NOTE		121	Continuous	Yes	GRADING NOTES AND ANNOTATION
C	GRAD	SPOT		12	Continuous	Yes	SPOT ELEVATIONS
C	MARK	AIRS		220	Continuous	Yes	PAVEMENT MARKINGS AIRSIDE
C	MARK	COGO		100	Continuous	Yes	PAVEMENT MARKING COORDINATE GEOMETRY
C	MARK	DIMS		100	Continuous	Yes	PAVEMENT MARKING DIMENSIONS
C	MARK	NOTE		121	Continuous	Yes	PAVEMENT MARKING NOTES AND ANNOTATION
C	MARK	PARK		220	Continuous	Yes	PAVEMENT MARKINGS PARKING
C	MARK	ROAD		220	Continuous	Yes	PAVEMENT MARKINGS ROADS
C	MARK	TEXT		100	Continuous	Yes	MISC. TEXT & CALLOUTS WITH ASSOC. LEADER LINES
C	PAVE	ASPH		12	Continuous	Yes	ROAD, PARKING LOT AND AIRSIDE
C	PAVE	COGO		121	Continuous	Yes	PAVING COORDINATE GEOMETRY DATA
C	PAVE	BRDR	PATT	14	Continuous	Yes	PAVEMENT HATCH BORDERS
C	PAVE	CONC		12	Continuous	Yes	ROAD, PARKING LOT AND AIRSIDE

C	PAVE	CURB	BACK	1	Continuous	Yes	BACK OF CURB
C	PAVE	CURB	FACE	131	Continuous	Yes	FACE OF CURB
C	PAVE	DIMS		100	Continuous	Yes	PAVEMENT DIMENSIONS
C	PAVE	GRAV		12	Continuous	Yes	GRAVEL
C	PAVE	JBAR		220	Continuous	Yes	JERSEY BARRIERS
C	PAVE	JNTS		220	Continuous	Yes	EXPANSION JOINTS
C	PAVE	LIMT		13	Dashed	Yes	PAVING LIMITS
C	PAVE	NOTE		121	Continuous	Yes	PAVING NOTES
C	PAVE	SECT		172	Continuous	Yes	SECTION MARKS
C	PROF			1	Continuous	Yes	PROFILE FEATURES
C	PROF	BASE		1	Continuous	Yes	PROFILE BASE
C	PROF	FGCL		131	Continuous	Yes	PROFILE FINISHED GROUND
C	PROF	NOTE		100	Continuous	Yes	PROFILE NOTES AND ANNOTATIONS
C	PROF	TEXT		100	Continuous	Yes	MISC. TEXT & CALLOUTS WITH ASSOC. LEADER LINES
C	PROF	XING		131	Continuous	Yes	PROFILE UTILITY CROSSINGS
C	SECT			131	Continuous	Yes	SECTION FEATURES
C	SECT	DIMS		100	Continuous	Yes	SECTION DIMENSIONS
C	SECT	NOTE		121	Continuous	Yes	SECTION NOTES AND ANNOTATIONS
C	SECT	SMPL		220	Continuous	Yes	SECTION SAMPLE LINES
C	SECT	VIEW		100	Continuous	Yes	SECTION VIEWS
C	SECT	VIEW	TABL	100	Continuous	Yes	SECTION VIEW TABLES
C	SITE	ABUT		131	Continuous	Yes	BRIDGE ABUTMENTS
C	SITE	BLDG		131	Continuous	Yes	BUILDINGS, SHEDS, MAJOR AND MINOR SITE FEATURES
C	SITE	BLDG	TEXT	100	Continuous	Yes	MINOR AND MAJOR SITE FEATURE TEXT
C	SITE	COGO		121	Continuous	Yes	SITEWORK COORDINATE GEOMETRY
C	SITE	FNCE		131	Continuous	Yes	FENCES AND BOLLARDS
C	SITE	FNDN		131	Continuous	Yes	FOUNDATIONS
C	SITE	GUID		131	Continuous	Yes	GUIDE RAILS
C	SITE	LAND		131	Continuous	Yes	LANDSCAPE FEATURES
C	SITE	NOTE		100	Continuous	Yes	SITE NOTES AND ANNOTATIONS
C	SITE	SIGN		220	Continuous	Yes	SIGNS
C	SITE	SIGN	TEXT	100	Continuous	Yes	SIGN TEXT
C	SITE	TICK		121	Continuous	Yes	TICK MARKS
C	SITE	WALL		131	Continuous	Yes	WALLS
C	STAG	BRDR	PATT	12	Continuous	Yes	HATCH BORDERS
C	STAG	DIMS		100	Continuous	Yes	CONSTRUCTION STAGE DIMENSIONS
C	STAG	NOTE		100	Continuous	Yes	CONSTRUCTION STAGE NOTES AND ANNOTATIONS
C	STAG	STAGE		12	Continuous	Yes	CONSTRUCTION STAGE FEATURES
C	STAG	STAG	TEXT	100	Continuous	Yes	MISC. TEXT & CALLOUTS WITH ASSOC. LEADER LINES
C	UTIL	CB__		121	Continuous	Yes	CATCH BASINS
C	UTIL	CB__	TEXT	100	Continuous	Yes	CATCH BASIN TEXT
C	UTIL	COGO		121	Continuous	Yes	UTILITY COORDINATE GEOMETRY
C	UTIL	DIMS		121	Continuous	Yes	UTILITY DIMENSIONS
C	UTIL	FIRE		121	HPW	Yes	FIRE (HIGH PRESSURE WATER LINE)
C	UTIL	FIRE	TEXT	100	Continuous	Yes	FIRE (HIGH PRESSURE WATER LINE) TEXT
C	UTIL	FUEL		121	FOS	Yes	FUEL LINE
C	UTIL	FUEL	TEXT	100	Continuous	Yes	FUEL TEXT
C	UTIL	GASL		121	G	Yes	GAS LINE
C	UTIL	GASL	TEXT	100	Continuous	Yes	GAS TEXT
C	UTIL	HYDR		121	Continuous	Yes	HYDRANTS
C	UTIL	HYDR	TEXT	100	Continuous	Yes	HYDRANTS TEXT
C	UTIL	MH__		121	Continuous	Yes	MANHOLES OTHER THAN SANITARY OR STORM
C	UTIL	MH__	TEXT	100	Continuous	Yes	MANHOLES TEXT
C	UTIL	NOTE		121	Continuous	Yes	NOTES AND ANNOTATION
C	UTIL	SSMH		121	Continuous	Yes	SANITARY SEWER MANHOLES
C	UTIL	SSMH	TEXT	100	Continuous	Yes	SANITARY SEWER MANHOLES TEXT
C	UTIL	SSWR		121	SAN	Yes	SANITARY SEWER
C	UTIL	SSWR	TEXT	100	Continuous	Yes	SANITARY SEWER TEXT
C	UTIL	STEM	HPRS	121	HPS	Yes	HIGH PRESSURE STEAM LINE
C	UTIL	STEM	LPRS	121	LPS	Yes	LOW PRESSURE STEAM LINE
C	UTIL	STEM	MPRS	121	MPS	Yes	MEDIUM PRESSURE STEAM LINE
C	UTIL	STEM	TEXT	100	Continuous	Yes	STEAM TEXT
C	UTIL	STRM		121	ST	Yes	STORM DRAINAGE LINE
C	UTIL	STRM	CB__	121	Continuous	Yes	STORM DRAINAGE CATCH BASINS
C	UTIL	STRM	MH__	121	Continuous	Yes	STORM DRAINAGE MANHOLES
C	UTIL	STRM	SD__	121	Continuous	Yes	SUB-DRAIN
C	UTIL	STRM	TEXT	100	Continuous	Yes	STORM DRAINAGE TEXT
C	UTIL	WATR	COLD	121	CW	Yes	COLD WATER LINE
C	UTIL	WATR	HOTW	121	HWS	Yes	HOT WATER LINE
C	UTIL	WATR	HPRS	121	HPW	Yes	HIGH PRESSURE WATER LINE

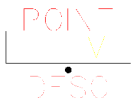
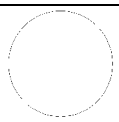
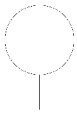
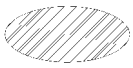
C	UTIL	WATR	LPRS	121	LPS	Yes	LOW PRESSURE WATER LINE
C	UTIL	WATR	MPRS	121	MPS	Yes	MEDIUM PRESSURE WATER LINE
C	UTIL	WATR	TEXT	100	C	Yes	WATER TEXT
C	XREF			121	Continuous	Yes	EXTERNAL REFERENCE DRAWINGS
C	XREF	RAST		121	Continuous	Yes	RASTER IMAGES

1.17.3 LINETYPES

Name	Description	Example
C	Communication Line (1x)	
Continuous	Continuous	
CW	Cold Water Line (1x)	
DASHED	Dashed (1x)	
DIVIDE	Divide (1x)	
FOS	Fuel Line (1x)	
G	Gas Line (1)	
HPS	High Pressure Steam Line (1x)	
HPW	High Pressure Water Line (1x)	
HWS	Hot Water Line (1x)	
LPS	Low Pressure Water Line (1x)	
MPS	Medium Pressure Water Line (1x)	
PHANTOM	Phantom (1x)	
PHANTOM2	Phantom (0.5x)	
RR	Rail Road (1x)	
SAN	Sanitary Sewer Line (1x)	
ST	Storm Drainage Line (1x)	

1.17.4 SYMBOLS

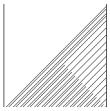
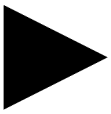
1.17.4.1 DRAFTING CONVENTIONS

Symbol	Block Name	Layer Name	Description
	civ-CALLOUT.dwg	Varies	Callout for Plans
	civ-DET-SYMB.dwg	Varies	Detail Symbol for Plans
	CS_CURVE.dwg	C-ALGN-CRVE	Curve Number Label
	CS_FG-POINT.dwg	C-GRAD-SPOT	Finished Grade Spot Elevation
	CS_GRID.dwg	C-ANNO-COGO-GRID	Cogo Grid Tick
	CS_PC.dwg	C-ALGN-CRVE	Bubble
	CS_PITO.dwg	C-ALGN-CRVE	Revision Triangle
	CS_PS.dwg	C-ALGN-CRVE	Grid Bubble
	CS_REMTIC.dwg	C-RMVL-TICK	Removal Tic
	CS_SECMARK1.dwg	C-PAVE-SECT	Section Marker for Plans
	CS_SECMARK2.dwg	C-PAVE-SECT	Section Marker for Plans
	CS_TWEDMKR.dwg	C-MARK-AIRS	Taxiway Edge Marker
	FG-POINT.dwg	C-GRAD-SPOT	Finished Grade Spot Elevation

	POINT (old).DWG	C-GRAD-SPOT	Finished Grade Spot Elevation (Old)
	Sec1.dwg	C-ANNO-SYMB	Section, Detail, Elev. Callout
	Sec2.dwg	C-ANNO-SYMB	Section, Detail, Elev. Callout
	Sec3.dwg	C-ANNO-SYMB	Section, Detail, Elev. Callout
	Sec4.dwg	C-ANNO-SYMB	Section, Detail, Elev. Callout
	Sec5.dwg	C-ANNO-SYMB	Section, Detail, Elev. Callout
	Sec6.dwg	C-ANNO-SYMB	Section, Detail, Elev. Callout
	Sec7.dwg	C-ANNO-SYMB	Section, Detail, Elev. Callout
	Sec8.dwg	C-ANNO-SYMB	Section, Detail, Elev. Callout
	Section Title.dwg	C-ANNO-SYMB	Section Title

1.17.4.2 UTILITIES

Symbol	Block Name	Layer Name	Description
	CS_CB.dwg	C-UTIL-CBSN	Catch Basin
	CS-CBADJ.dwg	C-UTIL-CBSN	Adjust Removal Catch Basin
	CS_CB-MH.dwg	C-UTIL-MANH	Convert Removal Catch Basin to Manhole

	CS_EBOX.dwg	C-UTIL-MANH	Adjusted Electrical Box/Hand Hole
	CS_FLOW.dwg	(Layer is Same as it is for Utility Pipe)	Flow Arrow
	CS_HYD.dwg	C-UTIL-HYDR	Utility Hydrant
	CS_MH.dwg	C-UTIL-MANH	Manhole
	CS_MGADJ.dwg	C-UTIL-MANH	Adjust Removal Manhole
	CS_PIPEPLUG.dwg	C-UTIL-STRM	Pipe Plug
	CS_VALVE.dwg	(Layer is Same as it is for Utility Pipe)	Utility Line Valve

1.17.5 CIVIL 3D

This Section Is Under Construction

1.17.5.1 DATA SHORTCUTS (NY-NJ PORT AUTHORITY CIVIL 3D OBJECT SHARING)

Most AutoCAD users are familiar with referencing techniques for sharing drawing information, such as XREF, wblock, import and attach. Civil 3D uses intelligent objects, such as surfaces and profiles, which do not retain intelligence through typical external references*. The proper way to share intelligent civil 3D objects is through Data Shortcuts. Objects include:

- Alignments
- Surfaces
- Profiles
- Sections
- Corridors
- Pipe Networks

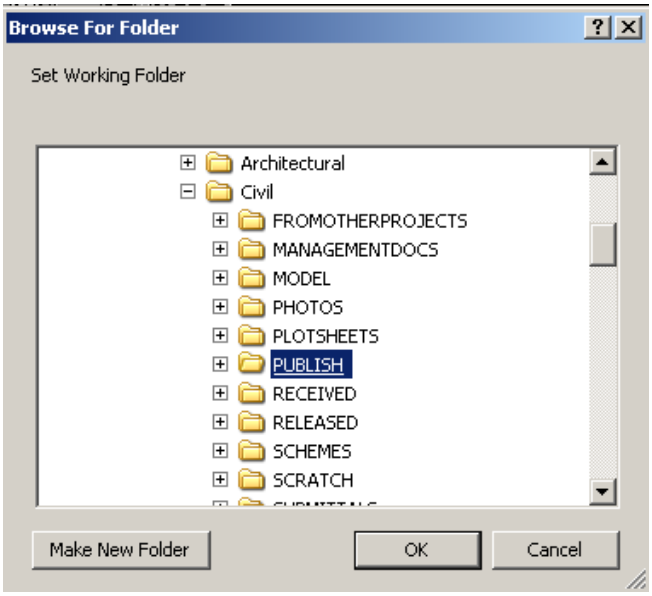
Note: *Users can add labels to civil objects through xref, but cannot design/build from data.

Data Shortcut method involves two steps, sharing (export) and referencing (import).

Note: You may only wish to do step 2- Reference Data Shortcuts. Skip to page 4.

1.17.5.1.1 SHARE DATA SHORTCUTS

Open drawing containing the civil objects to be shared. These objects must be native to the open drawing and not externally referenced (xref). Once a user has created a civil object, the drawing must be saved. This object is shared with other users through the Data Shortcuts within the prospector tab of the Toolspace.

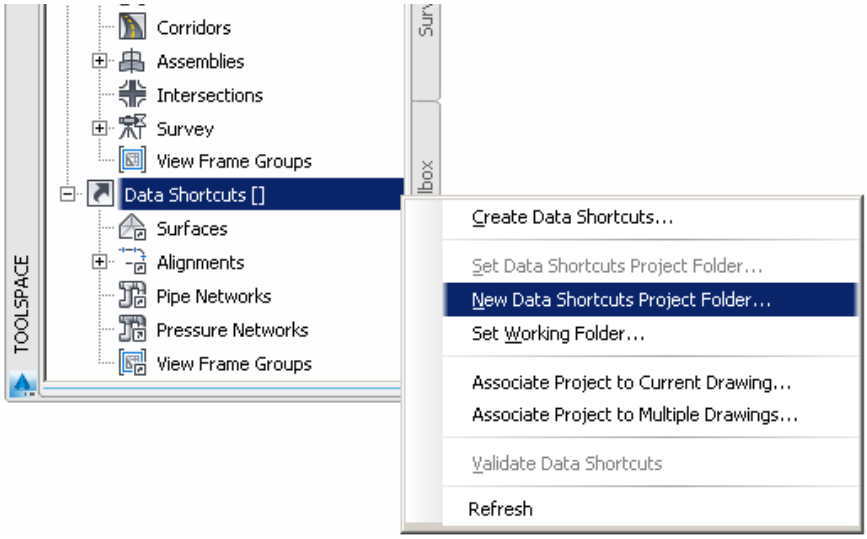


Set the Working Folder

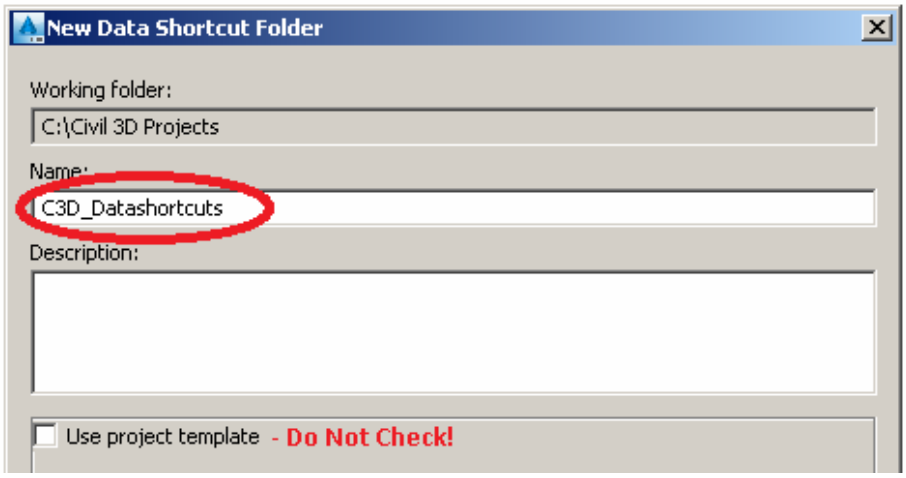
Right click on the Data Shortcut and select Set Working Folder. In the Civil folder of the PID folder, select the PUBLISH folder as the Working Folder. Click OK.

Create New Data Shortcuts Folder

Right click the Data Shortcuts again and select **New Data Shortcuts Folder…**

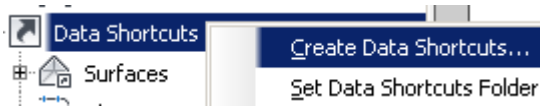


Enter the name **C3D_Datashortcuts** and click **OK**. (Do Not Check box for 'Use Project Template')

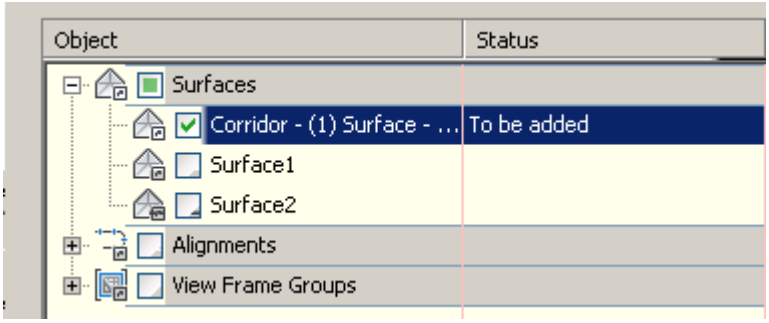


Create Data Shortcuts

Right Click Data Shortcuts again. Select Create Data Shortcuts.



Civil 3D will collect all intelligent civil objects within the drawing and display them in a dialog box. Users can specify which objects they wish to share by checking them off. Multiple objects, such as surfaces and alignments, can be added to the data shortcut.



Check desired objects to share and click **OK**. Data Shortcuts have been created.

Note: The data shortcut is saved to the C3D_Datashortcuts folder in xml format. Civil 3D is programmed to recognize these files to allow users to reference the intelligent data. If the object is modified in the native drawing, the xml and drawings referencing the data shortcut will automatically update.

Note: The following page describes the process of Referencing Data Shortcuts. This may be the only step users would use if not actually creating Civil 3D objects or data shortcuts.

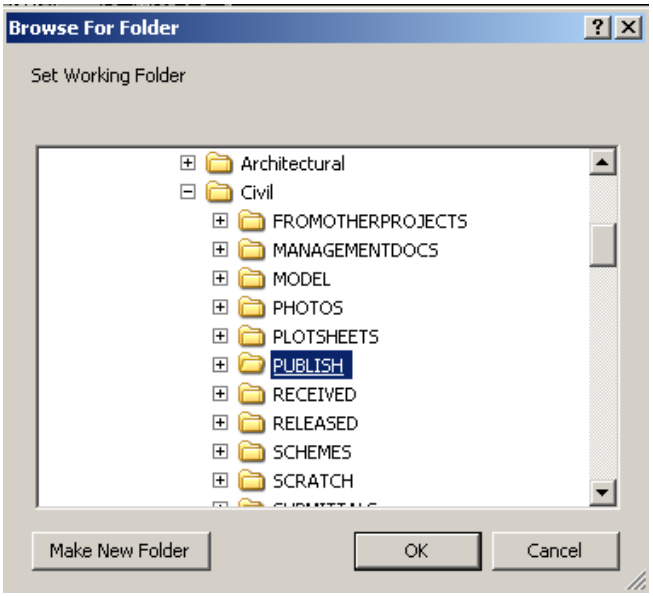
1.17.5.1.2 Reference Data Shortcuts

Another user may want to import these objects into their drawing. The user must open another drawing or create new in order to reference data shortcut objects.

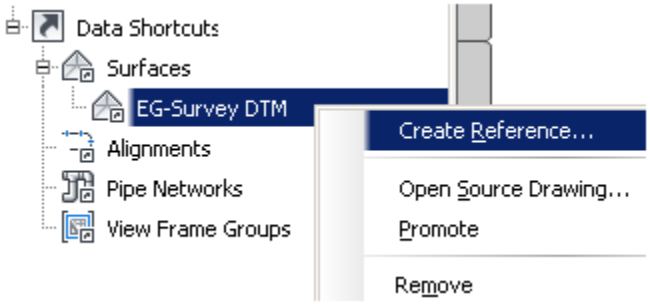
(The drawing **must be saved** prior to referencing)

Set the Working Folder

Right click on the Data Shortcut and select **Set Working Folder**. In the Civil folder of the PID folder, select the **PUBLISH** folder as the Working Folder. Click **OK**.



The Data Shortcuts will display a + symbol next to the object type available for reference. Click the + to expand the object type. Select the object and right click. Select **Create Reference…**



(If ***Create Reference…*** is disabled (grey), you must save drawing and reattempt this step.)

A dialog box will appear to allow user to set or change object style and name. Click **OK**. Object is successfully referenced and should display on screen. (Zoom extents). **Save Drawing**

THE PORT AUTHORITY OF NY & NJ has compiled sets of custom parts for use with Civil 3D Pipe Networks. There are several part families for both Pipes and Structures. The Pipe Network Catalog Settings should be mapped to the designated location for all Civil 3D users to access both standard parts and Port Authority custom parts:

1.17.5.2 PIPE NETWORK

Set Pipe Network Catalog…

K:\Application\EAD\CAD_Standards\2018\Civil\Pipes Catalog

The Pipe settings include Pipes catalogs:

- Metric Pipe Catalog
- **Port Authority of NY and NJ Custom Pipe Catalog**
- US Imperial Pipe Catalog

The Pipe settings include Structure catalogs:

- Metric Structure Catalog
- **Port Authority of NY and NJ Custom Structure Catalog**
- US Imperial Structure Catalog

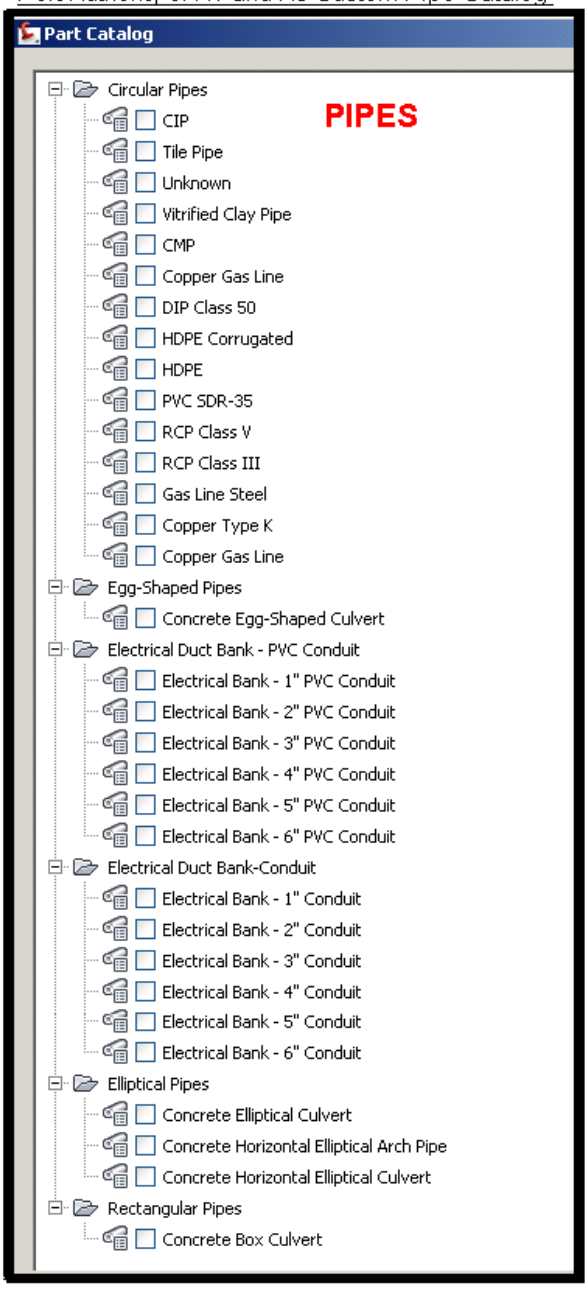
After the catalogs have been set to **Port Authority of NY and NJ Custom Catalog**, Pipe Network parts lists can be created and edited using these custom Port Authority parts.

To create or edit parts list, locate or create the part list. Add part families to pipes and structures. Add part sizes for part families as needed or add all sizes.

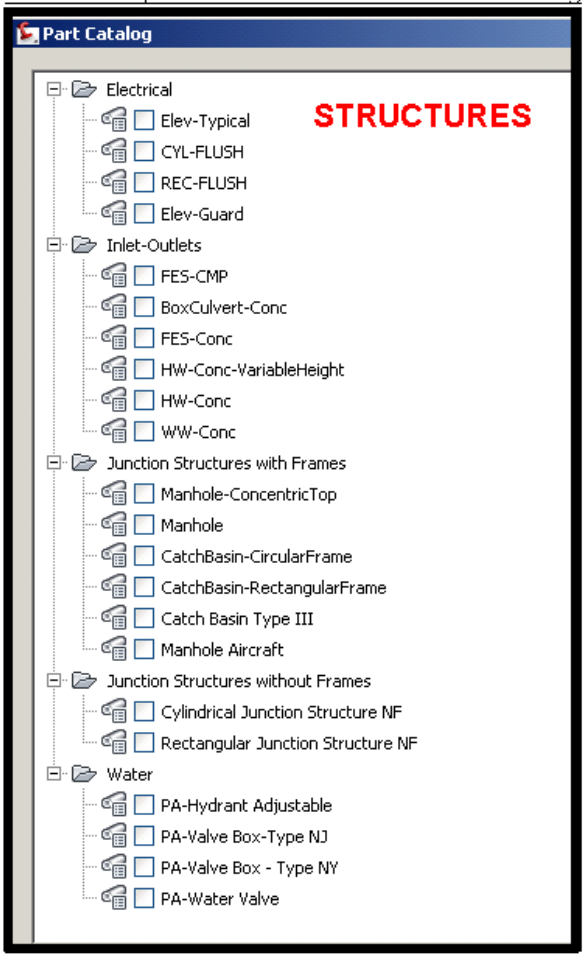
A complete list and description of pipes can be found at
K:\Application\EAD\CAD_Standards\2018\Civil\Pipes Catalog\PA-Pipes\PA-Pipes.htm

A complete list and description of structures can be found at
K:\Application\EAD\CAD_Standards\2018\Civil\Pipes Catalog\PA-Structures\PA-Structures.htm

Port Authority of NY and NJ Custom Pipe Catalog



Port Authority of NY and NJ Custom Structure Catalog



1.18 APPENDIX C – ELECTRICAL DISCIPLINE

1.18.1 CONTENT PREFERENCES

This Section Is Under Construction

1.18.2 LAYER STRATAGEM

1.18.2.1 ELECTRICAL WORK

DISCIPLINE	MAJOR	MINOR	DESC	COLOR	LINETYPE	PLOTS	DESCRIPTION
E	ANNO	BUBL		142	Continuous	Yes	Revision Bubble
E	ANNO	CHNG		7	Continuous	Yes	Identification of Updated Work
E	ANNO	DIMS		7	Continuous	Yes	Dimensions
E	ANNO	IDEN		2	Continuous	Yes	Identification Text
E	ANNO	MLIN		142	MATCHLINE	Yes	Match Lines
E	ANNO	NPLT		170	Continuous	No	Construction and Reference Lines
E	ANNO	TEXT		2	Continuous	Yes	Annotations and Callouts
E	ANNO	TITL		6	Continuous	Yes	Titles
E	ANNO	TTLB		130	Continuous	Yes	Contract Border
E	ANNO	VPRT		130	Continuous	No	View Port
E	DETL	EXTR		6	Continuous	Yes	Exterior Detail Lines
E	DETL	HDWR		7	Continuous	Yes	Hardware Detail Lines
E	DETL	HIDN		8	HIDDEN2	Yes	Hidden Detail Lines
E	DETL	INTR		170	Continuous	Yes	Interior Detail Lines
E	DETL	MISC		7	Continuous	Yes	Miscellaneous Detail Lines
E	DETL	PATT		252	Continuous	Yes	Detail Hatches
E	DETL	TEXT		2	Continuous	Yes	Detail Annotations
E	FIRE	ALDL		170	Continuous	Yes	ALDL Devices - Smoke Detectors and Other Input Devices
E	FIRE	SPKR		40	Continuous	Yes	Fire System Speaker
E	FIRE	STRB		170	Continuous	Yes	Fire System Strobes
E	FIRE	CABL		170	Continuous	Yes	Fire Alarm Cables
E	GNRL			3	Continuous	Yes	General Features
E	GNRL	BKGD		253	Continuous	Yes	General Background Features
E	GNRL	DETL		200	Continuous	Yes	General Details
E	GNRL	ENCL		170	Center	Yes	Enclosures
E	GNRL	IDEN		2	Continuous	Yes	Identification Tags
E	GNRL	FEN_		3	Continuous	Yes	Fence Line
E	CATH			6	Continuous	Yes	Corrosion Protection Features
E	CATH	TEXT		2	Continuous	Yes	Corrosion Protection Annotations
E	LITE	FIXT		6	Continuous	Yes	Light Fixtures
E	LITE	SITE		142	Continuous	Yes	Site Lighting
E	LITE	WHIP		11	Whip	Yes	Fixture Whip Connections
E	LITE	EXTR		6	Continuous	Yes	Exterior Features
E	LITE	HDWR		7	Continuous	Yes	Hardware Features
E	LITE	HIDN		8	HIDDEN2	Yes	Hidden Features
E	LITE	INTR		142	Continuous	Yes	Interior Features
E	LITE	MISC		7	Continuous	Yes	Miscellaneous Lines
E	LITE	PATT		252	Continuous	Yes	Lighting Hatches
E	LITE	TEXT		2	Continuous	Yes	Lighting Annotations
E	POWR	CIRC		3	Continuous	Yes	Conduit and Wiring
E	POWR	CIRC	HEAT	3	HTRACE	Yes	Heat Trace
E	POWR	DEVC		170	Continuous	Yes	Electrical Devices
E	POWR	DUCT		200	Center	Yes	Under Floor Duct
E	UGND	5KV		3	5KV	Yes	Underground 5KV Ductbank
E	UGND	13KV		3	13.8KV	Yes	Underground 13KV Ductbank
E	UGND	27KV		170	27KV	Yes	Underground 27KV Ductbank
E	UGND	OUTS		7	OS	Yes	Underground Out of Service Items
E	UGND	COMM		3	C	Yes	Underground Communication
E	UGND	DEVC		170	Continuous	Yes	Underground Device
E	UGND	FIBR		3	FO	Yes	Underground Fiber Optic
E	UGND	FIRE		170	FA	Yes	Underground Fire

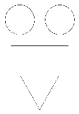
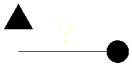
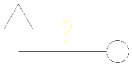
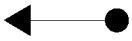
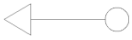
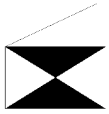
E	UGND	GRND		3	GND	Yes	Underground Ground Conductor
E	UGND	PCOM		140	PC	Yes	Underground Power Communication
E	UGND	POWR		142	P	Yes	Underground Power
E	UGND	PSEG		3	PSEG	Yes	Underground PSE&G Ductbank
E	UGND	WIRE		20	Continuous	Yes	Underground Wire
E	XREF			7	Continuous	Yes	Xref Insertion

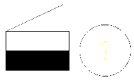
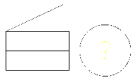
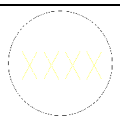
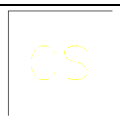
1.18.3 LINETYPES

Name	Description	Example
13.8KV		13.8KV 13.8KV 13.8KV 13.8KV
27KV		27KV 27KV 27KV 27KV
CENTER	Centerline (1x)	
Continuous	Continuous	
FA		FA FA FA FA
FO		FO FO FO FO
HIDDEN2	Hidden (0.50x)	
HIDDEN4	Hidden (0.25x)	
HTRACE		
MATCHLINE		
OS		OS OS
P		P P P P
PC		P,C P,C P,C P,C
PSEG		PSEG PSEG PSEG
REMOVAL		
REMOVAL1		
UGC		
UGE		
Whip		

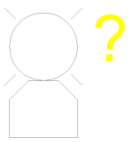
1.18.4 SYMBOLS

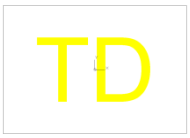
1.18.4.1 BLOCK DIAGRAMS

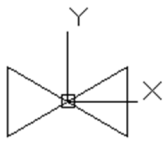
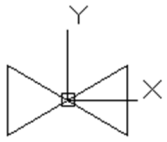
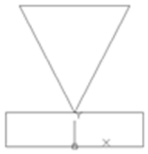
Symbol	Block Name	Layer Name	Description
	TSS001.dwg	E-LITE-SITE	Overhead Sign Structure
	TSS002.dwg	E-GNRL-EXST	Overhead Sign Structure – Removal to Remain
	TSS04.dwg	E-LITE-SITE	Ground-Mounted Sign Structure
 You al	TSS05.dwg	E-GNRL-EXST	Ground-Mounted Sign Structure – Removal to Remain
	TSS07.dwg	E-GNRL-DETL	Sign Structure Identification
	TSS08.dwg	E-LITE-SITE	Traffic Signal Standard
	TSS09.dwg	E-GNRL-EXST	Traffic Signal Standard – Removal to Remain
	TSS11.dwg	E-LITE-SITE	Traffic Signal Post – Top-Mounted
	TSS12.dwg	E-GNRL-EXST	Traffic Signal Post – Top-Mounted – Removal to Remain
	TSS14.dwg	E-LITE-SITE	Vehicular Traffic Signal Head
	TSS15.dwg	E-POWR-DEVC	Traffic Signal Control Cabinet
	TSS15_1.dwg	E-POWR-DEVC	Traffic Signal Control Cabinet
	TSS15_2.dwg	E-GNRL-DETL	Cabinet Identification

	TSS16.dwg	E-GNRL-EXST	Traffic Signal Control Cabinet – Removal to Remain
	TSS18.dwg	E-POWR-DEVC	Variable Message Sign Control Cabinet
	TSS19.dwg	E-GNRL-EXST	Variable Message Sign Control Cabinet – Removal to Remain
	IR007.dwg	E-GNRL-DETL	Transformer Fault Pressure Relay
	IR015.dwg	E-POWR-CIRC	Breaker Control Switch

1.18.4.2 FIRE

Symbol	Block Name	Layer Name	Description
	FAS001.dwg	E-FIRE-ALDL	Ceiling Mounted Smoke Detector
	FAS002.dwg	E-FIRE-ALDL	Fire Alarm Heat Detector
	FAS003.dwg	E-FIRE-ALDL	Duct Smoke Detector
	FAS004.dwg	E-FIRE-STRB	Duct Smoke Detector (with line segment)
	FAS005.dwg	E-FIRE-STRB	Wall-Mounted Fire Alarm Strobe
	FAS006.dwg	E-FIRE-SPKR	Fire Alarm Dry Pipe Sprinkler Alarm System Cabinet
	FAS007.dwg	E-FIRE-SPKR	Wall-Mounted Fire Alarm Speaker/Strobe

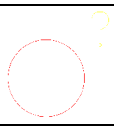
	FAS008.dwg	E-ANNO-TEXT	Wall-Mounted Heat Detector Speaker/Strobe
	FAS009.dwg	E-FIRE-ALDL	Ceiling-Mounted Fire Alarm Speaker (1/2W)
	FAS010.dwg	E-FIRE-ALDL	Wall-Mounted Fire Alarm Speaker (1/2W)
E.O.L.	FAS011.dwg	E-FIRE-ALDL	End of Line
	FAS012.dwg	E-FIRE-ALDL	Manual Fire Alarm Box
	FAS013.dwg	E-FIRE-ALDL	Existing Waterflow Switch
	FAS014.dwg	E-FIRE-ALDL	Existing Valve Supervisory (Tamper) Switch
	FAS015.dwg	E-FIRE-ALDL	Tenant Fire Alarm Amplifier
	FAS016.dwg	E-FIRE-ALDL	Terminal Strip Cabinet
	FAS017.dwg	E-POWR-DEVC	Solenoid Valve

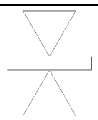
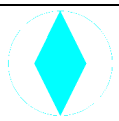
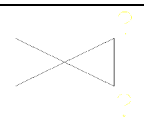
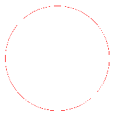
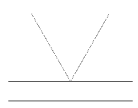
TR	FAS018.dwg	E-FIRE-SPKR	Fire Alarm Horn
IM	FAS019.dwg	E-FIRE-ALDL	Existing File Alarm Isolation Module
ATC	FAS020.dwg	E-POWR-DEVC	Automatic Transfer Control
TA	FAS021.dwg	E-FIRE-ALDL	Flow Switch
	FAS022.dwg	E-FIRE-ALDL	SO
	FAS023.dwg	E-POWR-DEVC	Transformer
	FAS024.dwg	E-FIRE-ALDL	TIB
ST	FAS025.dwg		Shunt Trip
PAD	FAS026.dwg		
FS	FAS027.dwg		Existing Waterflow Switch

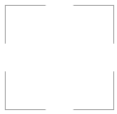
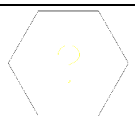
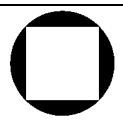
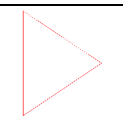
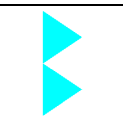
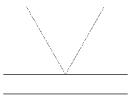
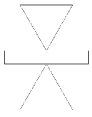
	FAS028.dwg		Smoke Damper
	FAS029.dwg		120AC/24DC Transformer
	FAS030.dwg		
	FAS031.dwg		Fire Alarm Control Module
	FAS032.dwg		Fire Alarm Monitor Module
	FAS033.dwg		Flow Switch
	FAS034.dwg		Tamper Switch
	FAS035.dwg		Fire Alarm Remote Test Station
	FAS036.dwg		Local Operation Console
	FAS037.dwg		Remote Graphic Annunciator
	FAS038.dwg		Auxiliary Power Supply
	FAS039.dwg		Firefighter Telephone

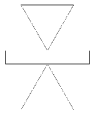
	FAS040.dwg		Generator Monitoring and Control Panel
	FAS041.dwg		Firefighters Smoke Control Panel
	FAS042.dwg		Smoke Purge Key Switch
	FAS043.dwg		Fire Alarm Control Panel
	FAS044.dwg		Universal Input/Output Module Motherboard (2 Module)
	FAS045.dwg		Universal Input/Output Module Motherboard (6 Module)
	FAS046.dwg		End of Line Resistor
	FAS047.dwg		Flow Switch

1.18.4.3 AVIATION LIGHTING

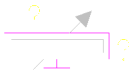
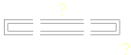
Symbol	Block name	Layer Name	Description
	Aer010.dwg	E-LITE-SITE	Runway/Taxiway Light
	Aer012.dwg	E-LITE-SITE	L-861-T Elevated Blue Taxiway Edge Light on Type "I" Marker Light Box
	Aer013.dwg	E-GNRL-EXST	Removal Elevated Blue Taxiway Edge Light to be Adjusted to Finished Grade
	Aer014.dwg	E-GNRL-EXST	Removal Runway/Taxiway Elevated Edge Light on Type "I" Marker Light Box
	Aer015.dwg	E-LITE-SITE	L-852 Type IV Flush Taxiway Centerline Light Fed by Flexible Conduit in Removal Pavement
	Aer016.dwg	E-LITE-SITE	L-852 Type IV Flush Taxiway Centerline Light Fed by Encased PVC Conduit
	Aer017.dwg	E-LITE-SITE	L-852 Type IV Flush Taxiway Centerline Light Mounted on a L-868 Double Section Base Can Fed by Grout Encased PVC-H Conduit in Pavement
	Aer019.dwg	E-GNRL-EXST	Removal Type IV Taxiway Centerline Lighting Fixture to be Adjusted to Finished Grade via a Variable Extension Can
	Aer020.dwg	E-LITE-SITE	Omni-Directional Fixture Mounted on a L-868 Single Section Base Can in Removal or Overlay Pavement
	Aer021.dwg	E-LITE-SITE	L-861-T Elevated Taxiway Edge Light Mounted on a L-867 Single Section Base Can
	Aer021_1.dwg	E-LITE-SITE	Centerline Light
	Aer022.dwg	E-GNRL-EXST	Removal L-861-T Elevated Taxiway Edge Light Mounted on a L-867 Single Section Base Can
	Aer023.dwg	E-LITE-SITE	Adjust L-861-T Elevated Taxiway Edge Light Mounted on a L-867 Single Section Base Can to Finished Grade

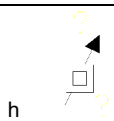
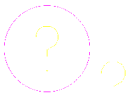
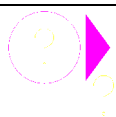
	Aer024.dwg	E-LITE-SITE	Internally-Illuminated Single-Face Taxiway
	Aer024_1.dwg	E-LITE-SITE	The Sign Number
	Aer024_2.dwg	E-GNRL-DETL	The Sign Number 2
	Aer025.dwg	E-LITE-SITE	Internally Illuminated Double Face Taxiway Guidance Sign
	Aer026.dwg	E-POWR-DEVC	Elevated Retro reflective Taxiway Marker
	Aer027.dwg	E-LITE-SITE	High-Intensity Hold Bar
	Aer028.dwg	E-LITE-SITE	L-850C Flush Runway Edge Light Mounted on a L-868 Single-Section Base Can
	Aer034.dwg	E-LITE-SITE	Runway/Taxiway Fixture
	Aer035.dwg	E-GNRL-EXST	Removal Electrical Communication Manhole
	Aer037.dwg	E-GNRL-EXST	Removal Flush Taxiway or Runway Centerline Fixture to Remain
	Aer038.dwg	E-GNRL-EXST	Removal Flush Runway Edge Light
	Aer040.dwg	E-GNRL-EXST	Removal Internally-Illuminated Single-Face Taxiway Guidance Sign
	Aer041.dwg	E-GNRL-EXST	Removal Flush Taxiway Omni directional Fixture
	Aer042.dwg	E-GNRL-EXST	Removal Flush Taxiway Omni directional Fixture – Removal

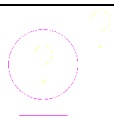
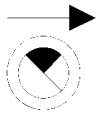
	Aer043.dwg	E-GNRL-RMVL	Removal Type "I" Marker Light Box, Including Fixture, Transformers, and Base Plates – Removals
	Aer044.dwg	E-GNRL-RMVL	Removal Taxiway Centerline Fixture – Removal
	Aer050.dwg	E-GNRL-DETL	Number Designation for Cross-References with Wiring Diagram
	Aer051.dwg	E-UGND-DEVC	Splice Box for Sensor Cable
	Aer053.dwg	E-UGND-DEVC	Removal Runway Surface Sensor to be Replaced
	Aer055.dwg	E-GNRL-EXST	Removal Double-Obstruction Light
	Aer056.dwg	E-GNRL-EXST	Removal Single-Obstruction Light
	Aer057.dwg	E-LITE-SITE	L-810 Double-Obstruction Light
	Aer058.dwg	E-LITE-SITE	L-810 Single-Obstruction Light
	Aer059.dwg	E-POWR-DEVC	Wind Cone
	Aer060.dwg	E-LITE-SITE	Flush Approach Light Bar by the FAA
	Aer061.dwg	E-LITE-SITE	Runway Touchdown Zone Light Bar
	Aer064.dwg	E-LITE-SITE	Adjust the Removal Internally-Illuminated Single-Face Taxiway Guidance Sign and Foundation to Finished Grade
	Aer067.dwg	E-GNRL-EXST	Removal Internally-Illuminated Double-Face Taxiway Guidance Sign

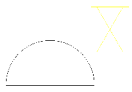
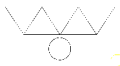
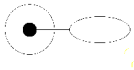
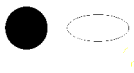
	Aer068.dwg	E-LITE-SITE	Adjust the Removal Internally-Illuminated Double-Face Taxiway Guidance Sign and Foundation to Finished Grade

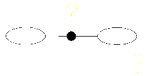
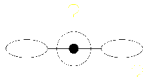
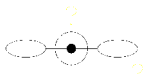
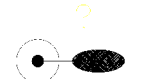
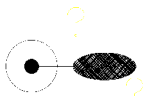
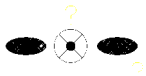
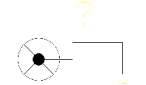
1.18.4.4 LIGHTING FIXTURES

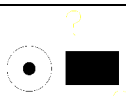
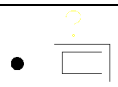
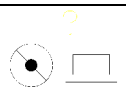
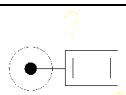
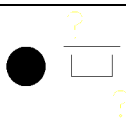
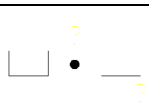
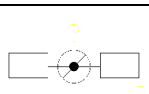
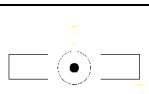
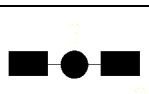
Symbol	Block name	Layer Name	Description
	Ltg001.dwg	E-LITE-FIXT	Ceiling-Mounted 1'x4' Fluorescent Lighting Fixture
	Ltg002.dwg	E-LITE-FIXT	Ceiling-Mounted 1'x4' Emergency Fluorescent Lighting Fixture
	Ltg003.dwg	E-LITE-FIXT	Ceiling-Mounted 1'x4' Fluorescent Fixture with Internal Emergency Battery
	Ltg004.dwg	E-LITE-FIXT	Wall-Mounted 1'x4' Fluorescent Fixture
	Ltg005.dwg	E-LITE-FIXT	Wall-Mounted 1'x4' Fluorescent Fixture
	Ltg006.dwg	E-LITE-FIXT	Wall-Mounted 1'x4'Fluorescent Fixture with Internal Emergency Battery
	Ltg007.dwg	E-LITE-FIXT	Ceiling-Mounted 1'x8' Fluorescent Fixture
	Ltg008.dwg	E-LITE-FIXT	Ceiling-Mounted Emergency Fluorescent Fixture
	Ltg009.dwg	E-LITE-FIXT	Ceiling-Mounted Fluorescent Fixture with Internal Emergency Battery
	Ltg010.dwg	E-LITE-FIXT	Ceiling-Mounted Continuous Fluorescent Fixture
	Ltg011.dwg	E-LITE-FIXT	Ceiling-Mounted Continuous Fluorescent Slot Washer
	Ltg012.dwg	E-LITE-FIXT	Ceiling-Mounted 2'x4' Fluorescent Fixture

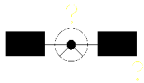
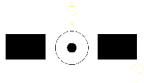
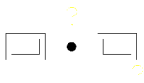
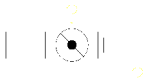
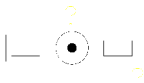
	Ltg013.dwg	E-LITE-FIXT	Ceiling-Mounted 2'x4' Emergency Fluorescent Fixture
	Ltg014.dwg	E-LITE-FIXT	Ceiling-Mounted Fluorescent Fixture with Internal Emergency Battery
	Ltg015.dwg	E-LITE-FIXT	Ceiling-Mounted 2'x2' Fluorescent Fixture
	Ltg016.dwg	E-LITE-FIXT	Ceiling-Mounted 2'x2' Emergency Fluorescent Fixture
	Ltg017.dwg	E-LITE-FIXT	Ceiling-Mounted 2'x2' Fluorescent Fixture with Internal Emergency Battery
	Ltg018.dwg	E-LITE-FIXT	Ceiling-Mounted 1'x2' Fluorescent Fixture
	Ltg019.dwg	E-LITE-FIXT	Ceiling-Mounted 1'x2' Fluorescent Wall Washer
	Ltg020.dwg	E-LITE-FIXT	Ceiling-Mounted Fluorescent Fixture
	Ltg021.dwg	E-LITE-FIXT	Ceiling-Mounted 1'x1' Compact Fluorescent Down light
	Ltg022.dwg	E-LITE-FIXT	Ceiling-Mounted 1'x1' Compact Fluorescent
 h	Ltg023.dwg	E-LITE-FIXT	Ceiling-Mounted 1'x1' Compact Fluorescent Down light with Internal Emergency Battery
	Ltg024.dwg	E-LITE-FIXT	Lighting Fixture
	Ltg025.dwg	E-LITE-FIXT	Recessed Lighting Fixture, Partial Exposure
	Ltg026.dwg	E-LITE-FIXT	Lighting Fixture

	Ltg027.dwg	E-LITE-FIXT	Recessed Lighting Fixture, Large
	Ltg028.dwg	E-LITE-FIXT	Recessed Lighting Fixture, Small
	Ltg029.dwg	E-LITE-FIXT	Recessed Lighting Fixture
	Ltg030.dwg	E-LITE-FIXT	Lighting Fixture
	Ltg031.dwg	E-LITE-FIXT	Lighting Fixture
	Ltg032.dwg	E-LITE-FIXT	Wall-Mounted Lighting Fixture
	Ltg033.dwg	E-LITE-FIXT	Surface-Mounted Hid Fixture
	Ltg034.dwg	E-LITE-FIXT	Surface-Mounted Hid Fixture 2
	Ltg035.dwg	E-LITE-FIXT	Fluorescent Strip
	Ltg036.dwg	E-LITE-FIXT	Track-Mounted Adjustable Fixtures
	Ltg037.dwg	E-LITE-FIXT	Emergency Batter Pack Lights
	Ltg038.dwg	E-LITE-FIXT	Ceiling-Mounted Exit Signs with Directional Arrow
	Ltg039.dwg	E-LITE-FIXT	Ceiling-Mounted Exit Signs with Directional Arrow 2
	Ltg040.dwg	E-LITE-FIXT	Ceiling-Mounted Exit Signs with Directional Arrow 3

	Ltg041.dwg	E-LITE-FIXT	Ceiling-Mounted Exit Signs with Directional Arrow 4
	Ltg042.dwg	E-LITE-FIXT	Wall-Mounted Outdoor Fixture
	Ltg043.dwg	E-LITE-FIXT	Wall-Mounted Outdoor Fixture 2
	Ltg044.dwg	E-LITE-FIXT	Wall-Mounted Outdoor Fixture 3
	Ltg045.dwg	E-LITE-FIXT	Wall-Mounted Outdoor Fixture 4
	Ltg046.dwg	E-LITE-FIXT	High-Mast Lighting Assembly Type
	Ltg047.dwg	E-LITE-FIXT	High-Mast Lighting Assembly Type 2
	Ltg048.dwg	E-LITE-FIXT	High-Mast Lighting Assembly Type 3
	Ltg049.dwg	E-LITE-FIXT	Floodlight Pole Lighting Assembly
	Ltg050.dwg	E-LITE-FIXT	Floodlight Pole Lighting Assembly
	Ltg051.dwg	E-LITE-FIXT	Single-Arm Roadway Lighting Standard
	Ltg052.dwg	E-LITE-FIXT	Remove Single-Arm Roadway Standard
	Ltg053.dwg	E-LITE-FIXT	Relocated Single-Arm Roadway Lighting Standard Removal Location
	Ltg054.dwg	E-LITE-FIXT	Relocated Single-Arm Roadway Lighting Standard New Location

	Ltg055.dwg	E-LITE-FIXT	Double-Arm Roadway Lighting Standard
	Ltg056.dwg	E-LITE-FIXT	Remove Double-Arm Roadway Lighting Standard
	Ltg057.dwg	E-LITE-FIXT	Relocate Double-Arm Roadway Lighting Standard Removal Location
	Ltg058.dwg	E-LITE-FIXT	Relocated Double-Arm Roadway Lighting Standard New location
	Ltg059.dwg	E-LITE-FIXT	Single-Arm Roadway Lighting Standard
	Ltg060.dwg	E-LITE-FIXT	Remove Single-Arm Roadway Lighting Standard
	Ltg061.dwg	E-LITE-FIXT	Relocate Single-Arm Roadway Lighting Standard Removal Location
	Ltg062.dwg	E-LITE-FIXT	Relocated Single-Arm Roadway Lighting Standard New Location
	Ltg063.dwg	E-LITE-FIXT	Double-Arm Roadway Lighting Standard
	Ltg064.dwg	E-LITE-FIXT	Remove Double-Arm Roadway Lighting Standard
	Ltg065.dwg	E-LITE-FIXT	Relocate Double-Arm Roadway Lighting Standard Removal Location
	Ltg066.dwg	E-LITE-FIXT	Relocated Double-Arm Roadway Lighting Standard New Location
	Ltg067.dwg	E-LITE-FIXT	Single-Arm Pole-Mounted Sharp Cut-Off Luminaire
	Ltg068.dwg	E-LITE-FIXT	Remove Single-Arm Pole-Mounted Sharp Cut-Off Luminaire

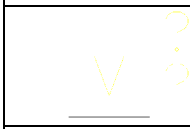
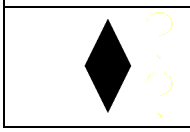
	Ltg069.dwg	E-LITE-FIXT	Relocate Single-Arm Pole-Mounted Sharp Cut-Off Luminaire (Removal Location)
	Ltg070.dwg	E-LITE-FIXT	Relocated Single-Arm Pole-Mounted Sharp Cut-Off Luminaire (New Location)
	Ltg071.dwg	E-LITE-FIXT	Single-Arm Pole-Mounted Sharp Cut-Off Luminaire
	Ltg072.dwg	E-LITE-FIXT	Remove Single-Arm Pole-Mounted Sharp Cut-Off Luminaire
	Ltg073.dwg	E-LITE-FIXT	Relocate Single-Arm Pole Mounted Sharp Cut-Off Luminaire (Removal Location)
	Ltg074.dwg	E-LITE-FIXT	Relocated Single-Arm Pole-Mounted Sharp Cut-Off Luminaire
	Ltg075.dwg	E-LITE-FIXT	Sinle0Arm Pole-Mounted Sharp Cut-Off Luminaire
	Ltg076.dwg	E-LITE-FIXT	Remove Single-Arm Pole-Mounted Sharp Cut-Off Luminaire
	Ltg077.dwg	E-LITE-FIXT	Relocate Single-Arm Pole-Mounted Sharp Cut-Off Luminaire (Removal Location)
	Ltg078.dwg	E-LITE-FIXT	Relocated Single-Arm Pole-Mounted Sharp Cut-Off Luminaire (New Location)
	Ltg079.dwg	E-LITE-FIXT	Double-Arm Pole-Mounted Sharp Cut-Off Luminaire
	Ltg080.dwg	E-LITE-FIXT	Remove Double-Arm Pole-Mounted Sharp Cut-Off Luminaire
	Ltg081.dwg	E-LITE-FIXT	Relocate Double-Arm Pole-Mounted Sharp Cut-Off Luminaire (Removal Location)
	Ltg082.dwg	E-LITE-FIXT	Relocated Double-Arm Pole-Mounted Sharp Cut-Off Luminaire (New Location)

	Ltg083.dwg	E-LITE-FIXT	Double-Arm Pole-Mounted Sharp Cut-Off Luminaire
	Ltg084.dwg	E-LITE-FIXT	Remove Double-Arm Pole-Mounted Sharp Cut-Off Luminaire
	Ltg085.dwg	E-LITE-FIXT	Relocate Double-Arm Pole-Mounted Sharp Cut-Off Luminaire (Removal Location)
	Ltg086.dwg	E-LITE-FIXT	Relocated Double-Arm Pole-Mounted Sharp Cut-Off Luminaire (New Location)
	Ltg087.dwg	E-LITE-FIXT	Double-Arm Pole-Mounted Sharp Cut-Off Luminaire
	Ltg088.dwg	E-LITE-FIXT	Remove Double-Arm Pole Mounted Sharp Cut-Off Luminaire
	Ltg089.dwg	E-LITE-FIXT	Relocate Double_Arm Pole Mounted Sharp Cut-Off Luminaire (Removal Location)
	Ltg090.dwg	E-LITE-FIXT	Relocated Double-Arm Pole-Mounted Sharp Cut-Off Luminaire (New Location)
	Ltg091.dwg	E-LITE-FIXT	Yoke-Mounted HID Floodlight
	Ltg092.dwg	E-LITE-FIXT	Yoke-Mounted HID Floodlight 2
	Ltg093.dwg	E-LITE-FIXT	Yoke-Mounted HID Floodlight 3
	Ltg101.dwg	E-LITE-FIXT	Exit Sign – Single Face
	Ltg102.dwg	E-LITE-FIXT	Exit Sign – Single Face, Exit to West
	Ltg103.dwg	E-LITE-FIXT	Exit Sign – Single Face, Exit to East

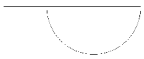
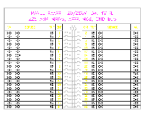
	Ltg104.dwg	E-LITE-FIXT	Exit Sign – Double-Faced
	Ltg105.dwg	E-LITE-FIXT	Exit Sign – Double-Faced, Exit to East
	Ltg106.dwg	E-LITE-FIXT	Wall-Mounted Exit Sign, Single Face
	Ltg107.dwg	E-LITE-FIXT	Wall-Mounted Exit Sign, Single Face, Exit to West
	Ltg108.dwg	E-LITE-FIXT	Wall-Mounted Exit Sign, Single Face, Exit to East
	Ltg109.dwg	E-LITE-FIXT	Wall-Mounted Exit Sign, Single Face, Double-Faced

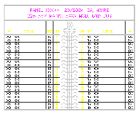
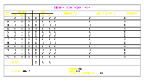
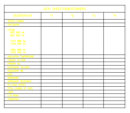
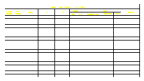
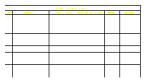
1.18.4.5 SWITCHES

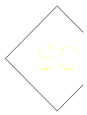
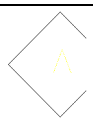
Symbol	Block name	Layer Name	Description
	Swt001.dwg	E-POWR-DEVC	Switch
	Swt002.dwg	E-POWR-DEVC	3-Way Switch
	Swt003.dwg	E-POWR-DEVC	4-Way Switch
	Swt004.dwg	E-POWR-DEVC	Dimmer Switch
	Swt005.dwg	E-POWR-DEVC	Switch
	Swt006.dwg	E-POWR-DEVC	Switch
	Swt007.dwg	E-POWR-DEVC	3-Way Dimmer Switch

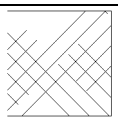
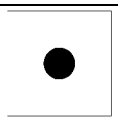
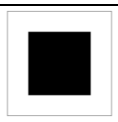
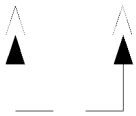
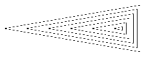
	Swt008.dwg	E-POWR-DEVC	Manual Motor Starting Switch with Thermal Overload Protection and Pilot Light
	Swt009.DWG	E-POWR-DEVC	Manual Motor Starting Switch with Thermal Overload Protection
	Swt009A.DWG	E-POWR-DEVC	Switch
	Swt009B.DWG	E-POWR-DEVC	Switch
	Swt009C.DWG	E-POWR-DEVC	Switch
	Swt009D.DWG	E-POWR-DEVC	Switch
	Swt009E.DWG	E-POWR-DEVC	Switch

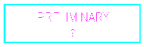
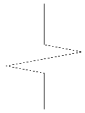
1.18.4.6 MISCELLANEOUS

Symbol	Block name	Layer Name	Description
	Bubble2.dwg	E-ANNO-DIMS	Leader Bubble
	BUBBLE3.dwg	E-ANNO-DIMS	Elongated Leader Bubble
	Mis011.dwg	E-RVSN-SYMB	Revision Tag
	Revision.dwg	E-ANNO-DIMS	Revision Table
	Sign-p.dwg	E-ANNO-TTLB	Signature Stamp
	Mis041.dwg	0	Circuit Breaker Panel

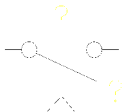
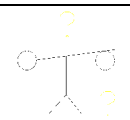
	Mis042.dwg	0	Power Panel
	Mis043.dwg	0	Circuit Breaker Panel R/C Controlled
	Mis044.dwg	0	Distribution Panel
	Mis045.dwg	0	Motor Control Panel
	Mis057.dwg	0	Transformer Schedule
	Mis058.dwg	0	Metal-Clad Switch Gear Schedule
	Mis059.dwg	0	Medium-Voltage Interrupter Schedule
	Mis060.dwg	0	Cable and Conduit Schedule
	Mis061.dwg	0	Lighting Fixture Schedule
	Ele-DET-SYMB.dwg	(Varies)	Detail Symbol
	Ir001.dwg	E-POWR-CIRC	Regulating Device
	Ir002.dwg	E-POWR-CIRC	Kilowatt-Hour Meter
	Ir003.dwg	E-POWR-CIRC	Instrument Switch, Test Block or Transducer
	Ir004.dwg	E-POWR-CIRC	Instrument Switch, Test Block or Transducer 2

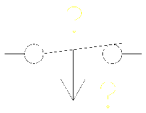
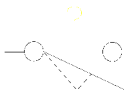
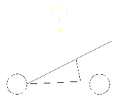
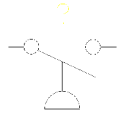
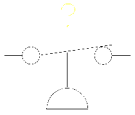
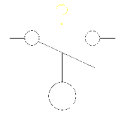
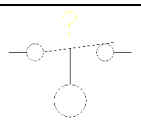
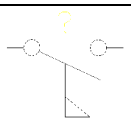
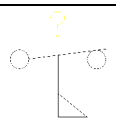
	Ir005.dwg	E-POWR-CIRC	Time Overcurrent Relay with Instantaneous Trip Attachment
	Ir006.dwg	E-POWR-CIRC	Time Overcurrent Ground Relay for All 50, 51, and 50/51 Relays.
	Ir007.dwg	E-POWR-CIRC	Transformer Fault Pressure Relay
	Ir008.dwg	E-POWR-CIRC	Transformer Sudden Pressure Relay
	Ir010.dwg	E-POWR-CIRC	Control Switch Trip
	Ir012.dwg	E-POWR-CIRC	Control Switch Remote – Local
	Ir013.dwg	E-POWR-CIRC	Indicator Light
	Ir014.dwg	E-POWR-CIRC	Lamp Test Relay
	Ir016.dwg	E-POWR-CIRC	Scada System Indication Function
	Ir017.dwg	E-POWR-CIRC	Scada System Control Function
	Ir018.dwg	E-POWR-CIRC	Solid-State Metering
	Ir019.dwg	E-POWR-CIRC	Annunciator
	Ir020.dwg	E-POWR-CIRC	Instrument
	Ir021.dwg	E-POWR-CIRC	Instrument

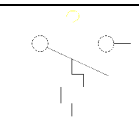
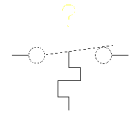
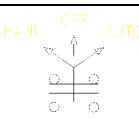
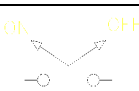
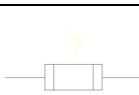
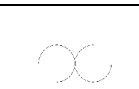
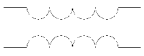
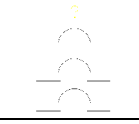
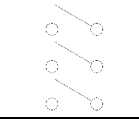
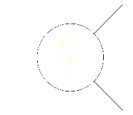
	Mis001.dwg	E-GNRL-DETL	Equipment Designation
	Mis004.dwg	E-POWR-DEVC	Pull Box
	Mis005.dwg	E-POWR-DEVC	Push Button
	Mis006.dwg	E-POWR-DEVC	Closed-Circuit TV Camera
	Mis007.dwg	E-POWR-DEVC	Closed-Circuit TV Camera 2
	Mis008.dwg	E-POWR-DEVC	Special System Device
	Mis010.dwg	E-POWR-DEVC	Aqua Stat
	Mis012.dwg	E-GNRL-DETL	Circle or Column Tag
	Mis013.dwg	E-GNRL-DETL	Section Arrows
	Mis023.dwg	E-POWR-DEVC	Break Glass Station
	Mis024.dwg	E-POWR-DEVC	Electromagnetic Door Holder
	Mis035.dwg	E-ANNO-DIMS	Arrowhead
	Mis036.dwg	E-POWR-CIRC	Conduit/Line Break
	Mis037.dwg	E-ANNO-DIMS	Bracket

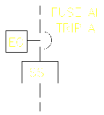
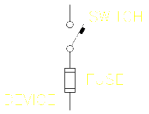
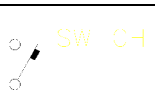
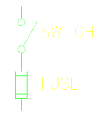
	Mis049.dwg	E-GNRL-DETL	Section
	Mis050.dwg	E-ANNO-TTLB	Preliminary Stamp
	Mis051.dwg	E-ANNO-TTLB	Submission Stamp
	Mis052.dwg	E-ANNO-TTLB	As-Built Stamp
	Mis053.dwg	E-GNRL-CIRC	Conduit Break
	Mis056.dwg	E-GNRL-DETL	Section Title
	Mis070.dwg	E-POWR-DEVC	TVSS
	Mis071.dwg	E-POWR-DEVC	Reflector
	WALLBREAK.dwg	E-GNRL-DETL	Wall Break

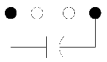
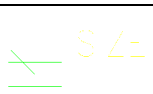
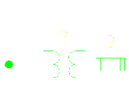
1.18.4.7 ONE LINE

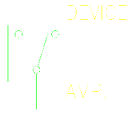
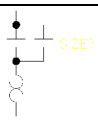
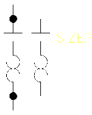
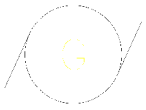
Symbol	Block name	Layer Name	Description
	Cds001.dwg	E-POWR-CIRC	Instantaneous Contact, NO
	Cds002.dwg	E-POWR-CIRC	Instantaneous Contact, NC
	Cds003.dwg	E-POWR-CIRC	“On Delay” Timer Contact, NO Time Open
	Cds004.dwg	E-POWR-CIRC	“On Delay” Timer Contact, NC Time Open

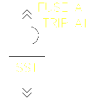
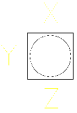
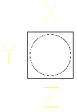
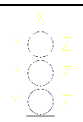
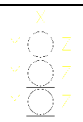
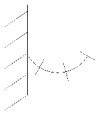
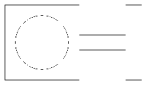
	Cds005.dwg	E-POWR-CIRC	“Off Delay” Timer Contact, NO Time Open
	Cds006.dwg	E-POWR-CIRC	“Off Delay” Timer Contact, NC Time Closed
	Cds007.dwg	E-POWR-CIRC	Limit Switch Contact, NO
	Cds008.dwg	E-POWR-CIRC	Limit Switch Contact, NC
	Cds009.dwg	E-POWR-CIRC	Limit Switch Contact NO Held Closed
	Cds010.dwg	E-POWR-CIRC	Limit Switch Contact NC Held Open
	Cds011.dwg	E-POWR-CIRC	Momentary Contact Push Button, NO
	Cds012.dwg	E-POWR-CIRC	Momentary Contact Push Button, NC
	Cds013.dwg	E-POWR-CIRC	Pressure Switch Contact, NO
	Cds014.dwg	E-POWR-CIRC	Pressure Switch Contact, NC
	Cds015.dwg	E-POWR-CIRC	Level Switch Contact, NO
	Cds016.dwg	E-POWR-CIRC	Level Switch Contact, NC
	Cds017.dwg	E-POWR-CIRC	Flow Switch Contact, NO
	Cds018.dwg	E-POWR-CIRC	Flow Switch Contact, NC

	Cds019.dwg	E-POWR-CIRC	Temperature Switch, NO
	Cds020.dwg	E-POWR-CIRC	Temperature Switch, NC
	Cds021.dwg	E-POWR-CIRC	Solenoid
	Cds022.dwg	E-POWR-CIRC	Operating Coil
	Cds023.dwg	E-POWR-CIRC	3-Position Selector Switch
	Cds024.dwg	E-POWR-CIRC	2-Position Selector Switch
	Cds025.dwg	E-POWR-CIRC	Fuse
	Cds027.dwg	E-POWR-CIRC	Thermal Overload Relay
	Cds028.dwg	E-POWR-CIRC	Transformer
	Cds029.dwg	E-POWR-CIRC	Circuit Breaker
	Cds030.dwg	E-POWR-CIRC	Disconnect Switch
	Cds031.dwg	E-POWR-CIRC	Diode
	Cds032.dwg	E-POWR-CIRC	Pilot Light
	Cds033.dwg	E-POWR-CIRC	Terminal Block

	Sld001.dwg	E-POWR-CIRC	Pothead-Type Cable Termination – Medium Voltage
	Sld002.dwg	E-POWR-CIRC	Cable Termination – Low Voltage
	Sld003.dwg	E-POWR-CIRC	Stress Cone –Type Cable Termination – Medium Voltage
	Sld005.dwg	E-POWR-CIRC	Ground and Test Device
	Sld006.dwg	E-POWR-CIRC	Ground Terminal Connection
	Sld007.dwg	E-POWR-CIRC	Bus Disconnecting Link
	Sld010.dwg	E-POWR-CIRC	Power Transformer
	Sld010_1.dwg	E-POWR-CIRC	Power Transformer
	Sld011.dwg	E-POWR-CIRC	Power Transformer Automatic Tap Changer
	Sld012.dwg	E-POWR-CIRC	Low Voltage 3-Pole AC Circuit Breaker
	Sld013.dwg	E-POWR-CIRC	Medium Voltage Fused Load Interrupter Switch Manually Operated
	Sld014.dwg	E-POWR-CIRC	Ground Connection
	Sld015.dwg	E-POWR-CIRC	Ground Connection
	Sld016.dwg	E-POWR-CIRC	Low Voltage, Fused Switch, 3-Pole U.O.N.

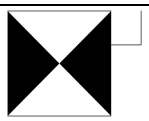
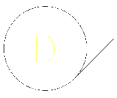
	Sld017.dwg	E-POWR-CIRC	Low Voltage, Non-fused Switch, 3-Pole U.O.N.
	Sld018.dwg	E-POWR-CIRC	Low Voltage, Molded Cased Circuit Breaker, 3-Pole U.O.N.
	Sld019.dwg	E-POWR-CIRC	Fuse
	Sld020.dwg	E-POWR-CIRC	Draw Out Device
	Sld021.dwg	E-POWR-CIRC	Plug-in Device
	Sld022.dwg	E-POWR-CIRC	Lightning Arrestor
	Sld023.dwg	E-POWR-CIRC	Circuit Device
	Sld024.dwg	E-POWR-CIRC	Neon Indicating Light
	Sld025.dwg	E-POWR-CIRC	Normally-Open Contact
	Sld025_1.dwg	E-POWR-CIRC	Normally-Closed Contact
	Sld025a.dwg	E-POWR-CIRC	Normally-Closed Contact
	Sld026.dwg	E-POWR-CIRC	Current Transformer
	Sld027.dwg	E-POWR-CIRC	Zero-Sequence Current Transformer
	Sld028.dwg	E-POWR-CIRC	Potential Transformer

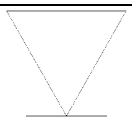
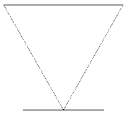
	Sld029.dwg	E-POWR-CIRC	Control Power Transformer
	Sld030.dwg	E-POWR-CIRC	Automatic Transfer Switch, 3-Pole U.O.N.
	Sld031.dwg	E-POWR-CIRC	Manual Transfer Switch, 3-Pole U.O.N.
	Sld032.dwg	E-POWR-CIRC	Medium Voltage Motor Controller, Reduced Voltage, Non-Reversing
	Sld033.dwg	E-POWR-CIRC	Medium Voltage Motor Controller, Reduced Voltage, Non-Reversing
	Sld034.dwg	E-POWR-CIRC	Low Voltage Motor Controller, Full Voltage, Non-Reversing (FVNR), 3-Pole
	Sld035.dwg	E-POWR-CIRC	Low Voltage Motor Controller, Full Voltage, Reversing (FVR), 3-Pole
	Sld036.dwg	E-POWR-CIRC	Low Voltage Motor Controller, Full Voltage, Two Speed, Non-Reversing (FV-25-NR), 3-Pole
	Sld037.dwg	E-POWR-CIRC	Induction Motor
	Sld038.dwg	E-POWR-CIRC	Power Circuit Breaker
	Sld039.dwg	E-POWR-CIRC	Battery
	Sld040.dwg	E-POWR-CIRC	Resistor
	Sld041.dwg	E-POWR-CIRC	Low Voltage Network Protector
	Sld042.dwg	E-POWR-CIRC	Emergency Generator

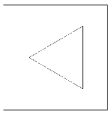
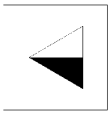
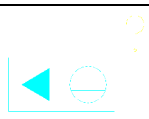
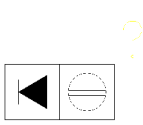
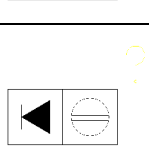
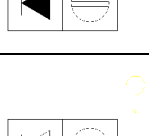
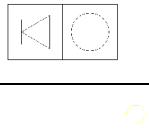
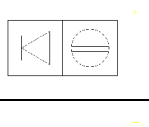
	Sld043.dwg	E-POWR-CIRC	Low Voltage, 3-Pole, Manually-Operated, AC Circuit Breaker
	Ki001.dwg	E-POWR-CIRC	Interlock with Key Held
	Ki002.dwg	E-POWR-CIRC	Interlock with Key Removed
	Ki003.dwg	E-POWR-CIRC	Multi-Lock Interlock with Keys Removed
	Ki004.dwg	E-POWR-CIRC	Transfer Interlock
	Ki005.dwg	E-POWR-CIRC	Shows Key Attached to Device with Insulated Chain or Stainless Steel Cable
	Ki006.dwg	E-POWR-CIRC	Detachable Latch or Door Interlocks
	Ki007.dwg	E-POWR-CIRC	Electrical Key Interlock
!!!	Ki008.dwg	E-POWR-CIRC	Electrical Key Interlock
	Ki009.dwg	E-POWR-CIRC	Mechanical Key Interlock

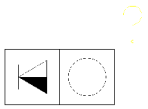
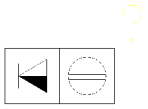
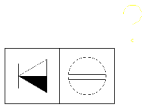
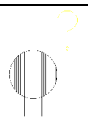
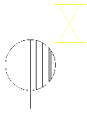
1.18.4.8 POWER

Symbol	Block Name	Layer Name	Description
	Pwr001.dwg	E-POWR-DEVC	480/277V, 3P, 4W Panelboard
	Pwr001A.dwg	E-POWR-DEVC	480/277V, 3P, 4W Panelboard
	Pwr002.dwg	E-POWR-DEVC	Distribution Panelboard or Switchboard
	Pwr003.dwg	E-POWR-DEVC	120/208V, 3P, 4W Panelboard

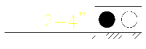
	PWR005.DWG	E-POWR-DEVC	Motor Control Center
	PWR006.DWG	E-POWR-DEVC	Fused Disconnect Switch
	PWR007.DWG	E-POWR-DEVC	Unfused Disconnect Switch
	Pwr008.dwg	E-POWR-DEVC	Combination Motor Starter and Fused Switch
	Pwr009.dwg	E-POWR-DEVC	Combination Motor Starter and Circuit Breaker
	Pwr010.dwg	E-POWR-DEVC	Motor Starter
	Pwr011.dwg	E-POWR-DEVC	Motor
	Pwr012.dwg	E-POWR-DEVC	Motorized Damper
	Pwr013.dwg	E-POWR-DEVC	Automatic Transfer Switch
	Pwr014.dwg	E-POWR-DEVC	Contactor
	Pwr015.dwg	E-POWR-DEVC	Transformer
	Pwr016.dwg	E-POWR-DEVC	Removal 480/277V, 3P, 4W Panelboard
	Pwr016A.dwg	E-POWR-DEVC	Generic Panel
	Pwr017.dwg	E-POWR-DEVC	Existing 120/208V, 3P, 4W Panelboard

	Pwr018.dwg	E-POWR-DEVC	VAV
	CAMERA.dwg	E-POWR-DEVC	Camera
	Out001.dwg	E-POWR-DEVC	Wall-Mounted Telephone
	Out002.dwg	E-POWR-DEVC	Wall-Mounted Data Outlet
	Out002A.dwg	E-POWR-DEVC	Wall-Mounted Combination Telephone/Data Outlet
	Out003.dwg	E-POWR-DEVC	Wall-Mounted TV Outlet
	Out004.dwg	E-POWR-DEVC	Wall-Mounted Single Receptacle 20A, 125V, 3W Grounding Type
	Out005.dwg	E-POWR-DEVC	Wall-Mounted Duplex Convenience Receptacle 15a, 125V, 3W Grounding Type
	Out005_1.dwg	E-POWR-DEVC	Wall-Mounted Multiplex Receptacle
	Out006.dwg	E-POWR-DEVC	Wall-Mounted Quadruplex Receptacle 15a, 125V, 3W Grounding Type
	Out007.dwg	E-POWR-DEVC	Wall-Mounted Single Special-Purpose Receptacle
	Out008.dwg	E-POWR-DEVC	Wall-Mounted Duplex Special-Purpose Receptacle
	Out009.dwg	E-POWR-DEVC	Wall-Mounted Clock Receptacle
	Out010.dwg	E-POWR-DEVC	Floor Telephone Outlet

	Out011.dwg	E-POWR-DEVC	Floor Data Outlet
	Out011A.dwg	E-POWR-DEVC	Floor Combination Telephone/Data Outlet
	OUT012.DWG	E-POWR-DEVC	Floor Single Receptacle 20A, 125V, 3W
	OUT013.DWG	E-POWR-DEVC	Floor Duplex Convenience Receptacle 15A, 125V, 3W Grounding Type Unless Otherwise Noted
	Out013A.dwg	E-POWR-DEVC	Floor Duplex Convenience Receptacle 15A, 125V, 3W Grounding Type Unless Otherwise Noted
	Out13B.dwg	E-POWR-DEVC	Floor Duplex Convenience Receptacle 15A, 125V, 3W Grounding Type Unless Otherwise Noted
	OUT014.DWG	E-POWR-DEVC	Floor Single Special-Purpose Receptacle
	OUT015.DWG	E-POWR-DEVC	Two Gang Floor Duplex Receptacle 15A, 125V, 3W Grounding-Type Telephone Outlet
	Out016.dwg	E-POWR-DEVC	Two Gang Floor Duplex Receptacle 15A, 125V, 3W Grounding-Type Telephone Outlet Unless Otherwise Noted
	Out017.dwg	E-POWR-DEVC	Two Gang Floor Duplex Receptacle 15A, 125V, 3W Grounding-Type Telephone Outlet Unless Otherwise Noted
	Out018.dwg	E-POWR-DEVC	Two Gang Floor Duplex Receptacle 15A, 125V, 3W Grounding-Type Telephone Outlet Unless Otherwise Noted
	Out019.dwg	E-POWR-DEVC	Two Gang Floor Duplex Receptacle 15A, 125V, 3W Grounding-Type Telephone Outlet Unless Otherwise Noted
	Out020.dwg	E-POWR-DEVC	Two Gang Floor Duplex Receptacle 15A, 125V, 3W Grounding-Type Telephone Outlet Unless Otherwise Noted

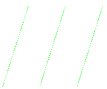
	Out021.dwg	E-POWR-DEVC	Two Gang Floor Duplex Receptacle 15A, 125V, 3W Grounding-Type Telephone Outlet Unless Otherwise Noted
	Out022.dwg	E-POWR-DEVC	Two Gang Floor Duplex Receptacle 15A, 125V, 3W Grounding-Type Telephone Outlet Unless Otherwise Noted
	Out023.dwg	E-POWR-DEVC	Two Gang Floor Duplex Receptacle 15A, 125V, 3W Grounding-Type Telephone Outlet Unless Otherwise Noted
	OUT041.dwg	E-POWR-DEVC	120V-20A Duplex Receptacle
	Out0051.dwg	E-POWR-DEVC	Ground Fault Receptacle
	Out051.dwg	E-POWR-DEVC	Ground Fault Receptacle
	Out0061.dwg	E-POWR-DEVC	Ground Fault Receptacle
	Pb-desk.dwg	E-POWR-DEVC	Desk-Mounted Push Button

1.18.4.9 UNDERGROUND

Symbol	Block Name	Layer Name	Description
	Ues100.dwg	E-GNRL-DETL	Duct Bank Flag
	Ues101_1.dwg	E-GNRL-DETL	Duct Bank Flag 1 Conduit Modify to Suit
	Ues101_2.dwg	E-GNRL-DETL	Duct Bank Flag 2 Conduit Modify to Suit
	Ues101_4.dwg	E-GNRL-DETL	Duct Bank Flag 4 Conduit Modify to Suit

	Ues101_6.dwg	E-GNRL-DETL	Duct Bank Flag 6 Conduit Modify to Suit
	Ues013.dwg	E-UGND-EXST	Power Manhole
	Ues014.dwg	E-UGND-EXST	Removal Power Manhole
	Ues015.dwg	E-UGND-COMM	Communication Manhole
	Ues016.dwg	E-UGND-EXST	Removal Communication Manhole
	Ues017.dwg	E-UGND-POWR	Power Manhole
	Ues018.dwg	E-UGND-EXST	Removal Power Handhole
	Ues019.dwg	E-UGND-COMM	Communication Handhole

1.18.4.10 WIRING

Symbol	Block name	Layer Name	Description
	Cc0010.dwg	E-POWR-CIRC	Conduit Turn Up
	Cc0011.dwg	E-POWR-CIRC	Conduit Turn Down
	Cc00202.dwg	E-POWR-CIRC	2 #12
	Cc00203.dwg	E-POWR-CIRC	3 #12
	Cc00204.dwg	E-POWR-CIRC	4 #12

	Cc00205.dwg	E-POWR-CIRC	5 #12
	Cc00206l.dwg	E-POWR-CIRC	Single Home Run
	Cc00206r.dwg	E-POWR-CIRC	Single Home Run
	Cc00207l.dwg	E-POWR-CIRC	Two Circuit Home Run
	Cc00207r.dwg	E-POWR-CIRC	Two Circuit Home Run
	Cc00208l.dwg	E-POWR-CIRC	Three Circuit Home Run
	Cc00208r.dwg	E-POWR-CIRC	Three Circuit Home Run

1.19 APPENDIX D – ENVIRONMENTAL DISCIPLINE

1.19.1 CONTENT PREFERENCES

This Section Is Under Construction

1.19.2 LAYER STRATAGEM

1.19.2.1 ENVIRONMENTAL WORK

DISCIPLINE	MAJOR	MINOR	DESC	COLOR	LINETYPE	PLOTS	DESCRIPTION
N	ANNO	CHNG		1	Continuous	Yes	IDENTIFICATION OF UPDATED WORK
N	ANNO	DIMS		1	Continuous	Yes	WITNESS/EXT. LINES DIM. ARROWHEADS/DOTS/SLASHES, DIM. TEXT
N	ANNO	KEYN		212	Continuous	Yes	KEYNOTES WITH ASSOCIATED LEADERLINES AND ARROWHEADS
N	ANNO	KEYP		254	Continuous	Yes	KEY PLAN
N	ANNO	MLIN		4	Matchline	Yes	MATCH LINE
N	ANNO	NOTE		212	Continuous	Yes	GENERAL NOTES AND GENERAL REMARKS
N	ANNO	NPLT		7	Continuous	No	NON-PLOTTING GRAPHICS
N	ANNO	SYMB		3	Continuous	Yes	MISC. SYMBOLS
N	ANNO	TEXT		212	Continuous	Yes	MISC.TEXT AND CALLOUTS WITH ASSOC. LEADERLINES AND ARROWHEADS
N	ANNO	TTLB		51	Continuous	Yes	BORDER AND TITLE BLOCK LINE WORK
N	ANNO	VPRT		200	Continuous	No	VIEW PORT
N	ASB_	ACM1		254	Continuous	Yes	ACM TYPE #1
N	ASB_	ACM2		253	Continuous	Yes	ACM TYPE #2
N	ASB_	ACM3		252	Continuous	Yes	ACM TYPE #3
N	ASB_	ACM4		251	Continuous	Yes	ACM TYPE #4
N	ASB_	ACM5		250	Continuous	Yes	ACM TYPE #5
N	ASB_	ACM6		7	Continuous	Yes	ACM TYPE #6
N	ASB_	AIRL		4	Continuous	Yes	AIRLOCK
N	ASB_	BARR		212	Continuous	Yes	ISOLATION BARRIER
N	ASB_	CNAD		8	Continuous	Yes	CONSTRUCTION AIDS (LADDERS, SCAFFOLDING, EC.)
N	ASB_	CONT		3	DashDot2	Yes	CONTAINMENT LIMITS
N	ASB_	CRIT		212	Continuous	Yes	CRITICAL BARRIER
N	ASB_	DECN		212	Continuous	Yes	DECONTAMINATION UNIT
N	ASB_	DIMS		1	Continuous	Yes	DIMENSIONS
N	ASB_	EQPM		1	Continuous	Yes	EQUIPMENT, (NUA'S, LIGHTS, F. EXT.)
N	ASB_	FLTB		5	Continuous	Yes	FLEX TUBE EXHAUST
N	ASB_	IDEN		212	Continuous	Yes	TEXT
N	ASB_	PLAT		1	Continuous	Yes	WORK AREA PLATFORM
N	ASB_	SYMB		3	Continuous	Yes	SYMBOLS
N	ASB_	WARA		51	Border2	Yes	WORK AREA LIMITS
N	ASB_	WIRE		51	Continuous	Yes	WIRE
N	ASB_	WSRT		51	Continuous	Yes	WASTE ROUTE
N	DETL	ACM1		8	Continuous	Yes	ACM TYPE #1
N	DETL	ACM2		8	Continuous	Yes	ACM TYPE #2
N	DETL	ACM3		8	Continuous	Yes	ACM TYPE #3
N	DETL	BARR		212	Continuous	Yes	ISOLATION BARRIER
N	DETL	CNAD		8	Continuous	Yes	CONSTRUCTION AIDS (LADDERS, SCAFFOLDING, EC.)
N	DETL	CONT		3	DashDot2	Yes	CONTAINMENT LIMITS
N	DETL	DECN		212	Continuous	Yes	DECONTAMINATION UNIT
N	DETL	DIMS		1	Continuous	Yes	DIMENSIONS
N	DETL	EQPM		1	Continuous	Yes	EQUIPMENT, (NUA'S, LIGHTS, F. EXT.)
N	DETL	FILL		1	Continuous	Yes	FILL/COVER MATERIAL
N	DETL	FLTB		5	Continuous	Yes	FLEX TUBE EXHAUST
N	DETL	IDEN		212	Continuous	Yes	TEXT
N	DETL	MEMB		4	Continuous	Yes	MEMBRANE/NETTING
N	DETL	PIPE		1	Continuous	Yes	PIPE AND CONDUIT
N	DETL	PLAT		1	Continuous	Yes	WORK AREA PLATFORM
N	DETL	PUMP		212	Continuous	Yes	PUMPS
N	DETL	STRC		4	Continuous	Yes	STRUCTURAL FEATURES
N	DETL	TANK		3	Continuous	Yes	TANKS

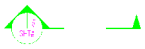
N	DETL	VLVE		1	Continuous	Yes	VALVES AND FITTINGS
N	DETL	WARA		51	Border2	Yes	WORK AREA LIMITS
N	DETL	WIRE		51	Continuous	Yes	WIRING
N	GENE	BORE		4	Continuous	Yes	SOIL BORE SAMPLING LOCATION
N	GENE	EXWL		212	Continuous	Yes	EXTRACTION WELL LOCATION
N	GENE	GEOP		3	Continuous	Yes	GEO-PROBE LOCATION
N	GENE	GWAT		7	Continuous	Yes	GROUND WATER GRADIENT
N	GENE	HORW		212	Continuous	Yes	HORIZONTAL WELL LOCATION
N	GENE	IDEN		1	Continuous	Yes	TEXT
N	GENE	MONW		3	Continuous	Yes	MONITORING WELL LOCATION
N	GENE	PLUM		254	Continuous	Yes	PLUME CONTAMINATION LOCATION
N	GENE	REWL		212	Continuous	Yes	RECOVERY WELL LOCATION
N	GENE	TRCH		3	Continuous	Yes	TRENCH LOCATION
N	LEAD	BARR		212	Continuous	Yes	ISOLATION BARRIER
N	LEAD	CNAD		8	Continuous	Yes	CONSTRUCTION AIDS (LADDERS, SCAFFOLDING, EC.)
N	LEAD	CONT		3	DashDot2	Yes	CONTAINMENT LIMITS
N	LEAD	DECN		212	Continuous	Yes	DECONTAMINATION UNIT
N	LEAD	DIMS		1	Continuous	Yes	DIMENSIONS
N	LEAD	FABT		8	Continuous	Yes	LCM FULL ABATEMENT
N	LEAD	IDEN		212	Continuous	Yes	TEXT
N	LEAD	PLAT		1	Continuous	Yes	WORK AREA PLATFORM
N	LEAD	SABT		7	Continuous	Yes	LCM SPOT ABATEMENT
N	LEAD	WARA		51	Border2	Yes	WORK AREA LIMITS
N	PERM	ERCT		5	Continuous	Yes	EROSION CONTROL
N	PERM	IDEN		7	Continuous	Yes	TEXT
N	PERM	LMLN		3	Phantom2	Yes	LIMIT LINE
N	PERM	REUS		5	Continuous	Yes	ADDITION TO PERMIT APPICTION SCOPE
N	PERM	SILT		5	Continuous	Yes	SILT FENCE
N	PERM	ENTR		1	Continuous	Yes	CONSTRUCTION ENTRANCE
N	PERM	CB__		212	Continuous	Yes	CATCH BASIN PROTECTION
N	PERM	WETL		1	Continuous	Yes	WETLAND AREA
N	REVS	BUBL		3	Continuous	Yes	REVISIONS BUBBLE
N	REVS	SYMB		3	Continuous	Yes	REVISIONS TEXT
N	SECT	ACM1		8	Continuous	Yes	ACM TYPE #1
N	SECT	ACM2		8	Continuous	Yes	ACM TYPE #2
N	SECT	ACM3		8	Continuous	Yes	ACM TYPE #3
N	SECT	BARR		212	Continuous	Yes	ISOLATION BARRIER
N	SECT	CNAD		8	Continuous	Yes	CONSTRUCTION AIDS (LADDERS, SCAFFOLDING, EC.)
N	SECT	CONT		3	DashDot2	Yes	CONTAINMENT LIMITS
N	SECT	DECN		212	Continuous	Yes	DECONTAMINATION UNIT
N	SECT	DIMS		1	Continuous	Yes	DIMENSIONS
N	SECT	EQPM		1	Continuous	Yes	EQUIPMENT, (NUA'S, LIGHTS, F. EXT.)
N	SECT	FLTB		5	Exhaust	Yes	FLEX TUBE EXHAUST
N	SECT	IDEN		212	Continuous	Yes	TEXT
N	SECT	MBND		8	Continuous	Yes	MATERIAL BEYOND SECTION CUT
N	SECT	MCUT		1	Continuous	Yes	MATERIAL CUT BY SECTION
N	SECT	PATT		8	Continuous	Yes	TEXTURES
N	SECT	PLAT		1	Continuous	Yes	WORK AREA PLATFORM
N	SECT	WARA		51	Border2	Yes	WORK AREA LIMITS
N	XREF			254	Continuous	Yes	EXTERNAL REFERENCE DRAWINGS
N	XREF	RAST		254	Continuous	Yes	RASTER IMAGES

1.19.3 LINETYPES

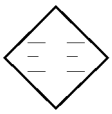
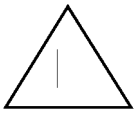
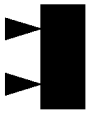
Name	Description	Example
Border2		
Continuous	Continuous	
DASHED	Dashed (1x)	
DashDot2		
MATCHLINE		
PHANTOM2		

1.19.4 SYMBOLS

1.19.4.1 DRAFTING CONVENTIONS

Symbol	Block Name	Layer Name	Description
	Env-callout.dwg	(Varies)	Callout Symbol
	Env-det-symb.dwg	(Varies)	Detail Symbol
	Env-sec-mark.dwg	(Varies)	Section Mark Symbol
	Nts.dwg	(Varies)	Not-to-Scale

1.19.4.2 MISCELLANEOUS

Symbol	Block Name	Layer Name	Description
	ACM.dwg	(Varies)	Asbestos-Containing Material
	ContainmentLimits.dwg	(Varies)	Containment Limits
	Criticalbarrier.dwg	(Varies)	Critical Barrier
	Eexit.dwg	(Varies)	Emergency Exit
	Electricsource.dwg	(Varies)	Electrical Power Source
	Emergencylite.dwg	(Varies)	Emergency Light
	Removalroofpoint.dwg	(Varies)	Removal Roof Footprint
	Isolationbarrier.dwg	(Varies)	Isolation Barrier

	Nau.dwg	(Varies)	Negative Air Unit
	Nauexhaustroute.dwg	(Varies)	NAU Flex Exhaust Route
	Vif.dwg	(Varies)	Verify in Field
	Water&drain.dwg	(Varies)	Water/Drain Source Locations
	Workarea1way.dwg	(Varies)	Work Area (One Way) Access/Egress
	Workarea2way.dwg	(Varies)	Work Area (Two Way) Access/Egress
	Workarealimits.dwg	(Varies)	Work Area Limits

1.20 APPENDIX E – GEOTECHNICAL DISCIPLINE

1.20.1 CONTENT PREFERENCES

This Section Is Under Construction

1.20.2 LAYER STRATAGEM

1.20.2.1 GEOTECHNICAL WORK

DISCIPLINE	MAJOR	MINOR	DESC	COLOR	LINETYPE	PLOTS	DESCRIPTION
G	ANNO	CHNG		2	Continuous	Yes	Identification of Updated Work
G	ANNO	DIMS		2	Continuous	Yes	Witness/Extension Lines, Dimension Lines, Arrowheads and Dimension Text
G	ANNO	KEYN		2	Continuous	Yes	Keynotes with Associated Leaderlines and Arrowheads
G	ANNO	MLIN		6	Continuous	Yes	Matchlines
G	ANNO	NOTE		2	Continuous	Yes	General Notes and Remarks
G	ANNO	NPLT		6	Continuous	No	Construction Lines/Reference Targets and Review Comments
G	ANNO	SYMB		2	Continuous	Yes	Miscellaneous Symbols
G	ANNO	TEXT		2	Continuous	Yes	Miscellaneous Text with Associated Leaderlines and Arrowheads
G	ANNO	TTLB		210	Continuous	Yes	Border and Titleblock Linework
G	ANNO	TABL		210	Continuous	Yes	Table and Schedule Linework
G	ANNO	VPRT		5	Continuous	No	Viewports
G	DETL	LINE		140	Continuous	Yes	Medium Weight Detail Linework
G	DETL	LINE	FINE	143	Continuous	Yes	Light Detail Linework
G	DETL	LINE	HEVY	141	Continuous	Yes	Bold Detail Linework
G	DETL	BORE		3	Continuous	Yes	Borings/Perk Holes
G	DETL	CONC		8	Continuous	Yes	Concrete
G	DETL	ERTH		3	Continuous	Yes	Earth/Soil
G	DETL	FILL		3	Continuous	Yes	Fill/Cover Material
G	DETL	FLDN		3	Continuous	Yes	Field Information
G	DETL	GNWD		3	Continuous	Yes	Ground Water
G	DETL	GNRL		3	Continuous	Yes	General Features
G	DETL	TEXT		3	Continuous	Yes	Text
G	DETL	LABI		3	Continuous	Yes	Laboratory Information
G	DETL	PAVE		3	Continuous	Yes	Pavement
G	DETL	SPCF		4	Continuous	Yes	Special Features
G	DETL	STEL		3	Continuous	Yes	Steel
G	DETL	STRM		3	Continuous	Yes	Storm Water
G	DETL	SUBS		3	Continuous	Yes	Subsurface Areas
G	DETL	INST		3	Continuous	Yes	Instrumentation Details
G	DETL	SURF		3	Continuous	Yes	Surface Areas
G	SITE	BORE		1	Continuous	Yes	Soil Boring Sample Locations
G	SITE	GNRL		3	Continuous	Yes	General
G	SITE	GRID		132	Continuous	Yes	Grid Lines
G	SITE	MONW		1	Continuous	Yes	Monitoring Well Locations
G	SITE	SUBS		3	Continuous	Yes	Subsurface
G	SITE	SURF		8	Continuous	Yes	Surface
G	SITE	TEXT		3	Continuous	Yes	Text
G	XREF			210	Continuous	Yes	Externally Referenced Drawings
G	XREF	RAST		210	Continuous	Yes	Raster Images

1.20.3 LINETYPES

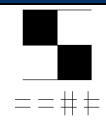
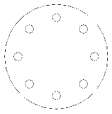
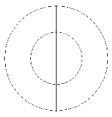
Name	Description	Example
Continuous	Continuous	———

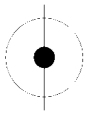
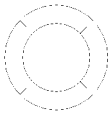
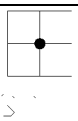
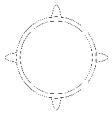
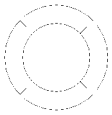
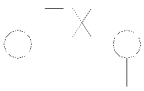
1.20.4 SYMBOLS

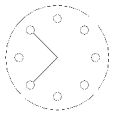
1.20.4.1 DRAFTING CONVENTIONS

Symbol	Block Name	Layer Name	Description
	geo-CALLOUT.dwg	(Varies)	Callout Symbol
	geo-DET-SYMB.dwg	(Varies)	Detail Symbol
	geo-SEC-MARK.dwg	(Varies)	Section Mark Symbol

1.20.4.2 MISCELLANEOUS

Symbol	Block Name	Layer Name	Description
	Borehole.dwg	(Varies)	Bore Hole
	Caisson.dwg	(Varies)	Caisson
	ConePenetometer.dwg	(Varies)	Cone Penetometer Sounding
	HML.dwg	(Varies)	HML
	H-Piles.dwg	(Varies)	H Piles
	MonotubePiles.dwg	(Varies)	Monotube Piles
	ObervationWell.dwg	(Varies)	Observation Well

	Piezometer.dwg	(Varies)	Piezometer
	PipePiles.dwg	(Varies)	Pipe Piles
	PrecastConcretePile.dwg	(Varies)	Precast Concrete
	SecantPilesPerm.dwg	(Varies)	Secant Piles
	SecantPilesTemp.dwg	(Varies)	Temporary Secant Piles
	Seismograph.dwg	(Varies)	Seismograph
	SettlementPlate.dwg	(Varies)	Settlement Plate
	SlopeInclinometer.dwg	(Varies)	Slope Inclinometer
	SteelSheetPiles.dwg	(Varies)	Steel Sheet Piles
	StrainGauge.dwg	(Varies)	Strain Gauge
	SurfaceMonitoringPoint.dwg	(Varies)	Surface Monitoring Point
	TapeExtensometerSpan.dwg	(Varies)	Tape Extensometer Span
	Tapertubepiles.dwg	(Varies)	Taper Tube Piles
	Tieback.dwg	(Varies)	Tie Back

	Timberpiles.dwg	(Varies)	Timber Piles

1.21 APPENDIX F – MECHANICAL DISCIPLINE

1.21.1 CONTENT PREFERENCES

This Section Is Under Construction

1.21.2 LAYER STRATAGEM

1.21.2.1 HVAC WORK

DISCIPLINE	MAJOR	MINOR	DESC	PHASE	COLOR	LINETYPE	PLOTS	DESCRIPTION
M	ANNO	CHNG			2	Continuous	Yes	Identification of Updated Work
M	ANNO	COLN			250	Center	Yes	Column Line
M	ANNO	DIMS			8	Continuous	Yes	Dimensions
M	ANNO	KEYN			2	Continuous	Yes	Keynotes
M	ANNO	MLIN			6	Divide	Yes	Match Lines
M	ANNO	NOTE			2	Continuous	Yes	General Notes and Remarks
M	ANNO	NPLT			8	Continuous	Yes	Construction and Reference Lines
M	ANNO	SYMB			2	Continuous	Yes	Miscellaneous Symbols
M	ANNO	TEXT			2	Continuous	Yes	Annotations
M	ANNO	TTLB			2	Continuous	Yes	Borders
M	ANNO	VPRT			7	Continuous	Yes	View Ports
M	AVFL	ABVE			6	AFS	Yes	Jet Fuel Above Ground
M	AVFL	BELW			6	AFSU	Yes	Jet Fuel Below Ground
M	AVFL	EQPT			60	Continuous	Yes	Jet Fuel Equipment
M	AVFL	OUTS			6	AFS	Yes	Jet Fuel Out Of Service
M	AVFL	TANK			60	Continuous	Yes	Jet Fuel Tanks
M	AVFL	VALV			60	Continuous	Yes	Jet Fuel Valves
M	BKGD				253	Continuous	Yes	Background Features
M	BKGD	TEXT			140	Continuous	Yes	Background Feature Annotations
M	CDWR	RETN			150	HPC	Yes	Condenser Water Piping Return (Schematic)
M	CDWR	RETN	DBLN		150	Continuous	Yes	Condenser Water Piping Return
M	CDWR	SUPP			150	CHWS	Yes	Condenser Water Piping Supply (Schematic)
M	CDWR	SUPP	DBLN		150	Continuous	Yes	Condenser Water Piping Supply
M	COND	HPIP			140	HPC	Yes	High Pressure Condensate Piping (Schematic)
M	COND	HPIP	DBLN		140	Continuous	Yes	High Pressure Condensate Piping
M	COND	TEXT			2	Continuous	Yes	High Pressure Condesate Text
M	COND	LPIP			140	LPC	Yes	Low Pressure Condensate Piping (Schematic)
M	COND	LPIP	DBLN		140	Continuous	Yes	Low Pressure Condensate Piping
M	COND	MPIP			140	MPC	Yes	Medium Pressure Condensate Piping (Schematic)
M	COND	MPIP	DBLN		140	Continuous	Yes	Medium Pressure Condensate Piping
M	CHWR	RETN			90	CWR	Yes	Chilled Water Piping Return (Schematic)
M	CHWR	RETN	DBLN		90	Continuous	Yes	Chilled Water Piping Return
M	CHWR	SUPP			90	CWS	Yes	Chilled Water Piping Supply (Schematic)
M	CHWR	SUPP	DBLN		90	Continuous	Yes	Chilled Water Piping Supply
M	CTRL	DEVI			140	Continuous	Yes	Control Devices
M	CTRL	LINK			170	Dashed	Yes	Control / Communication Link
M	CTRL	TEXT			2	Continuous	Yes	Control Text
M	DETL	CABS			7	Continuous	Yes	Cabinets
M	DETL	DUCT			140	Continuous	Yes	Ducts
M	DETL	EQPT			90	Continuous	Yes	Equipment and Fixtures
M	DETL	GENF			243	Continuous	Yes	General Features
M	DETL	LVLE			60	Continuous	Yes	Valves and Fittings
M	DETL	PATT			8	Continuous	Yes	Hatch Patterns
M	DETL	PIPE			6	Continuous	Yes	Piping
M	DETL	STRC			170	Continuous	Yes	Structural Support Features
M	DETL	WIRE			83	Continuous	Yes	Electrical Wiring
M	DUCT	DAMP			140	Continuous	Yes	Fire Damper or Fire / Smoke Damper
M	DUCT	DETR			140	Continuous	Yes	Smoke or Heat Detector
M	DUCT	EXHT			6	Continuous	Yes	Exhaust Duct Work
M	DUCT	RETN			231	Continuous	Yes	Return Duct Work
M	DUCT	SUPL			140	Continuous	Yes	Supply Duct Work
M	ELEV	FIXT			241	Continuous	Yes	Miscellaneous Features
M	ELEV	IDEN			9	Continuous	Yes	Component Identification Numbers
M	ELEV	OTLN			7	Continuous	Yes	Building Outlines
M	ELEV	PATT			7	Continuous	Yes	Textures and Hatch Patterns
M	ELEV	PFIX			2	Continuous	Yes	Plumbing Fixtures
M	FUEL	FORA			140	FOR	Yes	Fuel Oil Return Above
M	FUEL	FORU			140	FORU	Yes	Fuel Oil Return Below

M	FUEL	FOSA			140	FOS	Yes	Fuel Oil Suction Above
M	FUEL	FOSU			140	FOSU	Yes	Fuel Oil Suction Below
M	FUEL	FOVA			140	FOV	Yes	Fuel Oil Tank Vent Above
M	FUEL	FOVU			140	FOVU	Yes	Fuel Oil Tank Vent Below
M	FUEL	TANK			90	Continuous	Yes	Fuel Oil Tank
M	DTWS	RETN			90	DTWR	Yes	Dual Temperature Water Piping Return (Schematic)
M	DTWS	RETN	DBLN		90	Continuous	Yes	Dual Temperature Water Piping Return
M	DTWS	SUPP			90	DTWS	Yes	Dual Temperature Water Piping Supply (Schematic)
M	DTWS	SUPP	DBLN		90	Continuous	Yes	Dual Temperature Water Piping Supply
M	HTWR	RETN			231	HWR	Yes	Hot Water Piping Return (Schematic)
M	HTWR	RETN	DBLN		231	Continuous	Yes	Hot Water Piping Return
M	HTWR	SUPP			231	HWS	Yes	Hot Water Piping Supply (Schematic)
M	HTWR	SUPP	DBLN		231	Continuous	Yes	Hot Water Piping Supply
M	HVAC	EQPM			90	Continuous	Yes	HVAC Equipment
M	HVAC	PATT			8	Continuous	Yes	HVAC Hatch Patterns
M	HVAC	TEXT			2	Continuous	Yes	HVAC Annotations
M	HTOL	COIL			140	Continuous	Yes	Hot Oil Snow Melting Coil (Schematic)
M	HTOL	COIL	DBLN		140	Continuous	Yes	Hot Oil Snow Melting Coil
M	HTOL	RETN			90	HOSMR	Yes	Hot Oil Snow Melting Return Pipe (Schematic)
M	HTOL	RETN	DBLN		90	Continuous	Yes	Hot Oil Snow Melting Return Pipe
M	HTOL	SUPP			231	HOSMS	Yes	Hot Oil Snow Melting Supply Pipe (Schematic)
M	HTOL	SUPP	DBLN		231	Continuous	Yes	Hot Oil Snow Melting Supply Pipe
M	HTOL	VLBX			2	Continuous	Yes	Hot Oil Snow Melting Valve Box
M	HTHW	RETN			43	HTHWR	Yes	High Temperature Hot Water Return (Schematic)
M	HTHW	RETN	DBLN		43	Continuous	Yes	High Temperature Hot Water Return
M	HTHW	SUPP			43	HTHWS	Yes	High Temperature Hot Water Supply (Schematic)
M	HTHW	SUPP	DBLN		43	Continuous	Yes	High Temperature Hot Water Supply
M	MTHW	RETN			231	MTHWR	Yes	Medium Temperature Hot Water Return (Schematic)
M	MTHW	RETN	DBLN		231	Continuous	Yes	Medium Temperature Hot Water Return
M	MTHW	SUPP			231	MTHWS	Yes	Medium Temperature Hot Water Supply (Schematic)
M	MTHW	SUPP	DBLN		231	Continuous	Yes	Medium Temperature Hot Water Supply
M	MISC	BBDN			231	BBD	Yes	Boiler Blow Down
M	MISC	BKGD			7	Continuous	Yes	Background Piping
M	MISC	CAIR			140	A	Yes	Compressed Air
M	MISC	DRAN			231	D	Yes	Drain Piping
M	MISC	MWTR			231	MU	Yes	Makeup Water
M	PRES	DBLU			180	Continuous	Yes	Dark Blue
M	PRES	DGRN			96	Continuous	Yes	Dark Green
M	PRES	DPNK			240	Continuous	Yes	Dark Pink
M	PRES	LBLU			120	Continuous	Yes	Light Blue
M	PRES	LGRN			61	Continuous	Yes	Light Green
M	PRES	LPNK			221	Continuous	Yes	Light Pink
M	PRES	ORNG			41	Continuous	Yes	Orange
M	PRES	PRPL			202	Continuous	Yes	Purple
M	PRES	RED			20	Continuous	Yes	Red
M	REFG	DISG			231	RD	Yes	Refrigerant Discharge (Schematic)
M	REFG	LIQD			231	RL	Yes	Refrigerant Liquid (Schematic)
M	REFG	SCTN			231	RS	Yes	Refrigerant Suction (Schematic)
M	RIVW	BKGD			6	Continuous	Yes	River Water Background Features
M	RIVW	RETN			90	Continuous	Yes	River Water Return
M	RIVW	SUPP			6	Continuous	Yes	River Water Supply
M	RIVW	TUNL			6	Continuous	Yes	River Water Tunnel
M	SECT	TEXT			2	Continuous	Yes	Component Identification Numbers
M	SECT	MBND			7	Continuous	Yes	Materials Beyond Section Cut
M	SECT	MCUT			7	Continuous	Yes	Materials Cut By Section
M	SECT	PATT			7	Continuous	Yes	Textures and Hatch Patterns
M	STEM	HPIP			35	HPS	Yes	High Pressure Steam Piping (Schematic)
M	STEM	HPIP	DBLN		35	Continuous	Yes	High Pressure Steam Piping
M	STEM	LPIP			35	LPS	Yes	Low Pressure Steam Piping (Schematic)
M	STEM	LPIP	DBLN		35	Continuous	Yes	Low Pressure Steam Piping
M	STEM	MPIP			35	MPS	Yes	Medium Pressure Steam Piping (Schematic)
M	STEM	MPIP	DBLN		35	Continuous	Yes	Medium Pressure Steam Piping
M	XREF				7	Continuous	Yes	External Reference Drawings
M	XREF	RAST			7	Continuous	Yes	Raster Images

1.21.2.2 FIRE PROTECTION WORK

DISCIPLINE	MAJOR	MINOR	DESC	PHASE	COLOR	LINETYPE	PLOTS	DESCRIPTION
F	ANNO	CHNG			2	Continuous	Yes	Identification of Updated Work
F	ANNO	DIMS			8	Continuous	Yes	Dimensions
F	ANNO	KEYN			2	Continuous	Yes	Keynotes
F	ANNO	MLIN			6	Continuous	Yes	Match Lines
F	ANNO	NOTE			2	Continuous	Yes	General Notes and Remarks
F	ANNO	NPLT			8	Continuous	Yes	Construction and Reference Lines
F	ANNO	SYMB			2	Continuous	Yes	Miscellaneous Symbols
F	ANNO	TEXT			2	Continuous	Yes	Miscellaneous Annotations
F	ANNO	TTLB			2	Continuous	Yes	Borders
F	ANNO	VPRT			7	Continuous	Yes	View Ports
F	DETL	CABS			7	Continuous	Yes	Hose Cabinets
F	DETL	DUCT			140	Continuous	Yes	Ducts
F	DETL	EQPT			90	Continuous	Yes	Equipment and Fixtures
F	DETL	FANS			90	Continuous	Yes	Fans
F	DETL	GENF			243	Continuous	Yes	General Features
F	DETL	GRLS			140	Continuous	Yes	Grilles and Louvers
F	DETL	LVLE			60	Continuous	Yes	Valves and Fittings
F	DETL	PUMP			60	Continuous	Yes	Pumps and Compressors
F	DETL	STRC			170	Continuous	Yes	Structural Support Features
F	DETL	VENT			35	Dashed	Yes	Vents
F	DETL	WIRE			83	Continuous	Yes	Electrical Wiring
F	ELEV	FIXT			241	Continuous	Yes	Miscellaneous Fixtures
F	ELEV	IDEN			9	Continuous	Yes	Component Identifcation Numbers
F	ELEV	OTLN			7	Continuous	Yes	Building Outlines
F	ELEV	PATT			7	Continuous	Yes	Textures and Patterns
F	ELEV	PFIX			2	Continuous	Yes	Plumbing Fixtures
F	CO2_				231	Continuous	Yes	CO2 System
F	CO2_	EQPM			231	Continuous	Yes	CO2 Equipment
F	CO2_	HEAD			231	Continuous	Yes	CO2 Head
F	CO2_	PIPE			131	CO2	Yes	CO2 Sprinkler Piping
F	FM2_				231	Continuous	Yes	FM 200 System
F	FM2_	EQPM			231	Continuous	Yes	FM 200 Equipment
F	FM2_	HEAD			231	Continuous	Yes	FM 200 Head
F	FM2_	PIPE			131	FM_200	Yes	FM 200 Sprinkler Piping
F	INGN				231	Continuous	Yes	Inergen System
F	INGN	EQPM			231	Continuous	Yes	Inergen Equipment
F	INGN	HEAD			231	Continuous	Yes	Inergen Head
F	INGN	PIPE			131	INERGEN	Yes	Inergen Piping
F	SECT	IDEN			2	Continuous	Yes	Component Identifcation Numbers
F	SECT	MBND			7	Continuous	Yes	Materials Beyond Section Cut
F	SECT	MCUT			7	Continuous	Yes	Materials Cut By Section
F	SECT	PATT			7	Continuous	Yes	Textures and Patterns
F	WET_	EQUP			231	Continuous	Yes	Wet Sprinkler Equipment
F	WET_	HEAD			131	Continuous	Yes	Wet Sprinkler Heads
F	WET_	HEAD	PNDT		131	Continuous	Yes	Wet Sprinkler Pendant Heads
F	WET_	HEAD	CONC		131	Continuous	Yes	Wet Sprinkler Concealed Heads
F	WET_	HEAD	RECD		131	Continuous	Yes	Wet Sprinkler Recessed Heads
F	WET_	HEAD	SIDE		131	Continuous	Yes	Wet SprinklerSidewall Heads
F	WET_	HEAD	UPRT		131	Continuous	Yes	Wet Sprinkler Upright Heads
F	WET_	PIPE			131	SP	Yes	Wet Sprinkler Piping
F	DELU	EQUP			231	Continuous	Yes	Deluge Sprinkler Equipment
F	DELU	HEAD			131	Continuous	Yes	Deluge Sprinkler Heads
F	DELU	HEAD	PNDT		131	Continuous	Yes	Deluge Sprinkler Pendant Heads
F	DELU	HEAD	CONC		131	Continuous	Yes	Deluge Sprinkler Concealed Heads
F	DELU	HEAD	RECD		131	Continuous	Yes	Deluge Sprinkler Recessed Heads
F	DELU	HEAD	SIDE		131	Continuous	Yes	Deluge Sprinkler Sidewall Heads
F	DELU	HEAD	UPRT		131	Continuous	Yes	Deluge Sprinkler Upright Heads
F	DELU	PIPE			131	DEL	Yes	Deluge Sprinkler Piping
F	DRYC	EQUP			231	Continuous	Yes	Dry Chemical Sprinkler Equipment
F	DRYC	HEAD			131	Continuous	Yes	Dry Chemical Sprinkler Heads
F	DRYC	HEAD	PNDT		131	Continuous	Yes	Dry Chemical Sprinkler Pendant Heads
F	DRYC	HEAD	CONC		131	Continuous	Yes	Dry Chemical Sprinkler Concealed Heads
F	DRYC	HEAD	RECD		131	Continuous	Yes	Dry Chemical Sprinkler Recessed Heads
F	DRYC	HEAD	SIDE		131	Continuous	Yes	Dry Chemical Sprinkler Sidewall Heads
F	DRYC	HEAD	UPRT		131	Continuous	Yes	Dry Chemical Sprinkler Upright Heads
F	DRYC	PIPE			131	DRY_CHEM	Yes	Dry Chemical Sprinkler Piping
F	DRY_	EQUP			231	Continuous	Yes	Dry Sprinkler Equipment
F	DRY_	HEAD			131	Continuous	Yes	Dry Sprinkler Heads
F	DRY_	HEAD	PNDT		131	Continuous	Yes	Dry Sprinkler Pendant Heads

F	DRY_	HEAD	CONC		131	Continuous	Yes	Dry Sprinkler Concealed Heads
F	DRY_	HEAD	RECD		131	Continuous	Yes	Dry Sprinkler Recessed Heads
F	DRY_	HEAD	SIDE		131	Continuous	Yes	Dry Sprinkler Sidewall Heads
F	DRY_	HEAD	UPRT		131	Continuous	Yes	Dry Sprinkler Upright Heads
F	DRY_	PIPE			131	DRY	Yes	Dry Sprinkler Piping
F	FOAM	EQUP			231	Continuous	Yes	Foam Sprinkler Equipment
F	FOAM	HEAD			131	Continuous	Yes	Foam Sprinkler Heads
F	FOAM	HEAD	PNDT		131	Continuous	Yes	Foam Sprinkler Pendant Heads
F	FOAM	HEAD	CONC		131	Continuous	Yes	Foam Sprinkler Concealed Heads
F	FOAM	HEAD	RECD		131	Continuous	Yes	Foam Sprinkler Recessed Heads
F	FOAM	HEAD	SIDE		131	Continuous	Yes	Foam Sprinkler Sidewall Heads
F	FOAM	HEAD	UPRT		131	Continuous	Yes	Foam Sprinkler Upright Heads
F	FOAM	PIPE			131	FOAM	Yes	Foam Sprinkler Piping
F	PREA	EQUP			231	Continuous	Yes	Pre-Action Sprinkler Equipment
F	PREA	HEAD			131	Continuous	Yes	Pre-Action Sprinkler Heads
F	PREA	HEAD	PNDT		131	Continuous	Yes	Pre-Action Sprinkler Pendant Heads
F	PREA	HEAD	CONC		131	Continuous	Yes	Pre-Action Sprinkler Concealed Heads
F	PREA	HEAD	RECD		131	Continuous	Yes	Pre-Action Sprinkler Recessed Heads
F	PREA	HEAD	SIDE		131	Continuous	Yes	Pre-Action Sprinkler Sidewall Heads
F	PREA	HEAD	UPRT		131	Continuous	Yes	Pre-Action Sprinkler Upright Heads
F	PREA	PIPE			131	Continuous	Yes	Pre-Action Sprinkler Piping
F	SPKL	TEXT			2	Continuous	Yes	Fire Protection Annotations
F	XREF				7	Continuous	Yes	Externally Referenced Drawings
F	XREF	RAST			7	Continuous	Yes	Raster Images

1.21.2.3 PLUMBING WORK

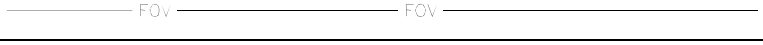
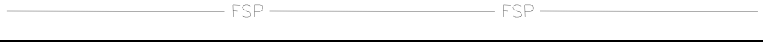
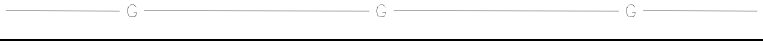
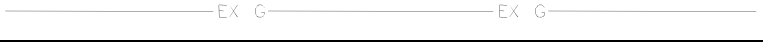
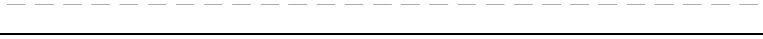
DISCIPLINE	MAJOR	MINOR	DESC	PHASE	COLOR	LINETYPE	PLOTS	DESCRIPTION
P	ACID	EQPM			131	Continuous	Yes	Acid, Alkaline and Oil Waste Equipment
P	ACID	PIPE			131	Acid	Yes	Acid, Alkaline and Oil Waste Piping
P	ANNO	CHNG			2	Divide	Yes	Identification of Updated Work
P	ANNO	DIMS			8	Continuous	Yes	Dimensions
P	ANNO	KEYN			2	Continuous	Yes	Keynotes
P	ANNO	MLIN			6	Continuous	Yes	Match Lines
P	ANNO	NOTE			2	Continuous	Yes	General Notes and Remarks
P	ANNO	NPLT			8	Continuous	Yes	Construction and Reference Lines
P	ANNO	SUBT			131	Continuous	Yes	Subtitles
P	ANNO	SYMB			2	Continuous	Yes	Miscellaneous Symbols
P	ANNO	TEXT			2	Continuous	Yes	Miscellaneous Annotations
P	ANNO	TITL			6	Continuous	Yes	Titles
P	ANNO	TTLB			2	Continuous	Yes	Borders
P	ANNO	VPRT			7	Continuous	Yes	View Ports
P	CAIR				30	A	Yes	Compressed Air Features
P	CAIR	EQPM			1	Continuous	Yes	Compressed Air Equipment
P	DETL	EQPM			3	Continuous	Yes	Equipment and Fixtures
P	DOMW				170	Continuous	Yes	Domestic Hot and Cold Water Systems
P	DOMW	COLD			170	DCW	Yes	Domestic Cold Water Piping
P	DOMW	EQPM			1	Continuous	Yes	Domestic Hot and Cold Water Equipment
P	DOMW	HOT_			170	DHW	Yes	Domestic Hot Water Piping
P	DOMW	PIPE			170	Continuous	Yes	Domestic Water Piping (Schematic)
P	DOMW	PIPE	DBLN		170	Continuous	Yes	Domestic Water Piping
P	DOMW	RETN			170	DHWR	Yes	Domestic Hot Water Return Piping
P	DOMW	TEMP			170	T	Yes	Domestic Water Tempered Water
P	ELEV	IDEN			2	Continuous	Yes	Component Identification Numbers
P	ELEV	OTLN			7	Continuous	Yes	Building Outlines
P	ELEV	PATT			7	Continuous	Yes	Textures and Patterns
P	ELEV	PFIX			51	Continuous	Yes	Plumbing Fixtures
P	FSP_	PIPE			170	FSP	Yes	Fire Standpipe Piping
P	GAS	EQPM			1	Continuous	Yes	Gas Equipment
P	GAS	PIPE			40	G	Yes	Gas Piping
P	IRRG	COVR			42	Continuous	Yes	Irrigation Coverage and Spray Distribution Patterns
P	IRRG	EQPM			60	Continuous	Yes	Irrigation Equipment
P	IRRG	PIPE	MAIN		121	Continuous	Yes	Main Irrigation Pipe Line
P	IRRG	PIPE	SLEV		121	Continuous	Yes	Irrigation Piping Sleeve
P	IRRG	PIPE	ZONE		121	Continuous	Yes	Irrigation Piping Zone
P	IRRG	SPKL	FIX_		42	Continuous	Yes	Sprinklers - Fixed Spray
P	IRRG	SPKL	SIDE		42	Continuous	Yes	Sprinklers - Side Walk
P	IRRG	TEXT			2	Continuous	Yes	Irrigation Annotation
P	MISC	SKID			30	Hidden2	Yes	Skid Pad

P	MISC	BKGD			7	Continuous	Yes	Background Features
P	MISC	HTRC			26	HTRACE	Yes	Heat Tacing (Draw Over Linework)
P	OIL_	EQPM			1	Continuous	Yes	Oil Equipment
P	OIL_	PIPE			32	OW	Yes	Oil Piping
P	SSWR				141	SAN	Yes	Sanitary Sewer Systems
P	SSWR	BELW			141	SANU	Yes	Sanitary Sewer Underground
P	SSWR	EQPM			10	Continuous	Yes	Sanitary Sewer Equipment (Schematic)
P	SSWR	EQPM	DBLN		10	Continuous	Yes	Sanitary Sewer Equipment
P	SSWR	FIXT			51	Continuous	Yes	Sanitary Sewer Plumbing Fixtures
P	SSWR	FLDR			1	Continuous	Yes	Sanitary Sewer Floor Drains
P	SSWR	PIPE			141	SAN	Yes	Sanitary Sewer Piping (Schematic)
P	SSWR	PIPE	SML_		50	Continuous	Yes	Sanitary Sewer Piping 4 Inch or Under Diameter
P	SSWR	PIPE	LRG_		51	Continuous	Yes	Sanitary Sewer Piping Over 4 Inch Diameter
P	SSWR	RISR			51	Continuous	Yes	Sanitary Sewer Risers
P	SECT	IDEN			2	Continuous	Yes	Component Identification Numbers
P	SECT	MBND			7	Continuous	Yes	Materials Beyond Section Cut
P	SECT	MCUT			7	Continuous	Yes	Materials Cut By Section
P	SECT	PATT			7	Continuous	Yes	Textures and Patterns
P	DRAN				141	ST	Yes	Storm Drainage System
P	DRAN	BELW			141	STU	Yes	Storm Drainage System Underground
P	DRAN	EQPM			10	Continuous	Yes	Storm Drainage Equipment (Schematic)
P	DRAN	EQPM	DBLN		10	Continuous	Yes	Storm Drainage Equipment
P	DRAN	PIPE			141	ST	Yes	Storm Drainage Piping (Schematic)
P	DRAN	PIPE	SML_		50	Continuous	Yes	Storm Drainage Piping 4 Inch or Under Diameter
P	DRAN	PIPE	LRG_		51	Continuous	Yes	Storm Drainage Piping Over 4 Inch Diameter
P	DRAN	RISR			51	Continuous	Yes	Storm Drainage Risers
P	DRAN	ROOF			1	Continuous	Yes	Storm Drainage Roof Drains
P	VENT	PIPE			32	VENT	Yes	Vent System Piping
P	VENT	RISR			51	Continuous	Yes	Vent Riser
P	XREF				7	Continuous	Yes	External Reference Drawings
P	XREF	RAST			7	Continuous	Yes	Raster Images

1.21.3 LINETYPES

Name	Description	Example
A	Compressed Air Line	
ACID	Acid Alkaline Oil Waste Piping	
ACID_EX	Existing Acid Alkaline Oil Waste Piping	
AFS	Aviation Fuel	
AFSU	Aviation Fuel Underground	
BBD	Boiler Blow Down	
Center		
CHWS	Chilled Water Piping Schematic Supply	

Name	Description	Example
CO2	Co2 Sprinkler System	CO2 CO2
Continuous		
CWR	Condenser Water Piping Schematic Return	CWR CWR
CWS	Condenser Water Piping Schematic Supply	CWS CWS
D	Drain Piping	D D D
Dashed		
DCW	Domestic Cold Water	
DCW_EX	Existing Domestic Cold Water	EX EX EX
DEL	Deluge Sprinkler Heads	DEL DEL
DHW	Domestic Hot Water	
DHW_EX	Existing Domestic Hot Water	EX EX EX
DHWR	Domestic Hot Water Return Circulation	
DHWR_EX	Existing Domestic Hot Water Return Circulation	EX EX EX
Divide		
DRY	Dry Sprinkler Piping	
DRY_CHEM	Dry Chemical Piping	
DTWR	Dual Temperature Water Return	
DTWS	Dual Temperature Water Supply	
FM_200	FM 200 Piping	FM_200 FM_200
FOAM	Foam Sprinkler Piping	FOAM FOAM

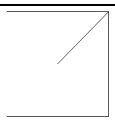
Name	Description	Example
FOR	Fuel Oil Return	
FORU	Fuel Oil Return Underground	
FOS	Fuel Oil Supply	
FOSU	Fuel Oil Supply Underground	
FOV	Fuel Oil Vent	
FOVU	Fuel Oil Vent Underground	
FSP	Fire Standpipe Piping	
FSP_EX	Existing Fire Standpipe Piping	
G	Gas Piping	
G_EX	Existing Gas Piping	
Hidden2		
HOSMR	Hot Oil Snow Melting Return Piping Schematic	
HOSMS	Hot Oil Snow Melting Supply Piping Schematic	
HPC	High Pressure Condensate Piping Schematic	
HPS	High Pressure Steam Piping Schematic	
HTHWR	High Temp. Hot Water Return Schematic	
HTHWS	High Temp. Hot Water Supply Schematic	
HTRACE	Heat Tracing	

Name	Description	Example
HWR	Hot Water Piping Schematic Return	
HWS	Hot Water Piping Schematic Supply	
INERGEN	Inergen Fire Suppressent Piping	
LPC	Low Pressure Condensate Piping Schematic	
LPS	Low Pressure Steam Piping Schematic	
MPC	Medium Pressure Condensate Piping Schematic	
MPS	Medium Pressure Steam Piping Schematic	
MTHWR	Medium Temp. Hot Water Return	
MTHWS	Medium Temp. Hot Water Supply	
MU	Makeup Water	
OW	Oil Water Piping	
RD	Refrigerant Discharge	
RL	Refrigerant Liquid	
RS	Refrigerant Suction	
SAN	Sanitary Piping	
SAN_EX	Existing Sanitary Piping	
SANU	Sanitary Piping Underground	
SANU_EX	Existing Sanitary Piping Underground Existing	

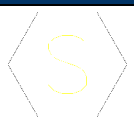
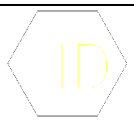
Name	Description	Example
SP	Sprinkler	
SP_EX	Existing Sprinkler	
ST	Storm Piping	ST ST
ST_EX	Existing Storm Piping	EX ST EX ST
STU	Storm Piping Underground	ST ST ST
STU_EX	Existing Storm Piping Underground	EX ST EX ST
T	Domestic Tempered Water	T T T
T_EX	Existing Domestic Tempered Water	EX T EX T
VENT	Vent Line	

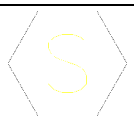
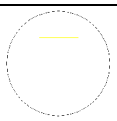
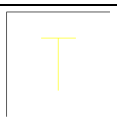
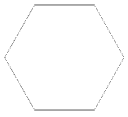
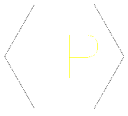
1.21.4 SYMBOLS

1.21.4.1 HVAC AIR TERMINALS

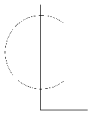
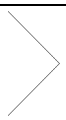
Symbol	Block Name	Layer Name	Description
	M-Diffuser-1_WAY.dwg	(Varies)	Three-Way Blanked Off Supply Diffuser
	M-Diffuser-2_WAY.dwg	(Varies)	Two-Way Blanked-Off Supply Air Diffuser
	M-Diffuser-2_WAY_CORNER.dwg	(Varies)	Two-Way Supply Diffuser with Blanked-Off Corner
	M-Diffuser-3_WAY.dwg	(Varies)	One-Way Blanked-Off Supply Air Diffuser
	M-Diffuser-4_WAY.dwg	(Varies)	Supply Air Diffuser
	M-Diffuser-R-1x1.dwg	(Varies)	Return Air Register

1.21.4.2 HVAC CONTROL DEVICES

Symbol	Block Name	Layer Name	Description
	DUCT SMOKE DETECTOR.dwg	(Varies)	Duct Smoke Detector
	FIRESTAT.dwg	(Varies)	Firestat
	FLOW SWITCH.dwg	(Varies)	Flow Switch
	FREEZESTAT.dwg	(Varies)	Freezstat
	HEAT DETECTOR.dwg	(Varies)	Heat Detector
	HUMIDISTAT.dwg	(Varies)	Humidistat

	M-FLOW_METER.dwg	(Varies)	Flow Meter
	M-FLOW_TRNSMTR.dwg	(Varies)	Flow Transmitter
	M-LEAK_DETECTOR.dwg	(Varies)	Leak Detector Symbol
	M-MOTOR.dwg	(Varies)	Motor
	M-SMOKE_DETECTOR.dwg	(Varies)	Smoke Detector (Duct)
	M-STEAM_TRAP.dwg	(Varies)	Steam Trap
	M-TEMP_SNSR.dwg	(Varies)	Temperature Sensor
	M-TEMPERATURE_SENSOR.dwg	(Varies)	Temperature Sensor
	M-THERMOSTAT.dwg	(Varies)	Thermostat
	M-THERMST_HUMIDIST_SWITCH.dwg	(Varies)	Thermostat/Humidistat Switch
	SPACE TEMPERATURE SENSOR.dwg	(Varies)	Space Temperature Sensor
	TEMPERATURE SENSOR.dwg	(Varies)	Temperature Sensor
	THERMOSTAT, ELECTRIC.dwg	(Varies)	Electric Thermostat
	THERMOSTAT, PNEUMATIC.dwg	(Varies)	Pneumatic Thermostat

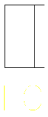
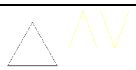
1.21.4.3 HVAC Drafting Conventions

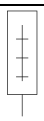
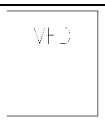
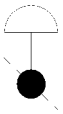
Symbol	Block Name	Layer Name	Description
	M-ARROW.dwg	(Varies)	Airflow Directional Arrow
	M-ARROW_LEADER.dwg	(Varies)	Leader to be Used with Thermostat Symbol
	M-BREAK.dwg	(Varies)	Duct Break
	M-BREAK_LINE1.dwg	(Varies)	Break Line
	M-BREAK_LINE2.dwg	(Varies)	Break Symbol for Single Line Ducts and Pipes
	M-CALLOUT.dwg	(Varies)	Callout for Plans
	M-CALLOUT-SYM.DWG	(Varies)	Detail, Section, & Elevation Symbol for Plans
	M-CENTERLINE_SYM.DWG	(Varies)	Centerline Symbol
	M-CUT2.dwg	(Varies)	Detail Symbol for Plans
	M-CUT3.dwg	(Varies)	Section Head
	M-CUT4.dwg	(Varies)	Section Line
	mec-CALLOUT.dwg	(Varies)	Callout
	M-REMOVAL.dwg	(Varies)	Removal Marker

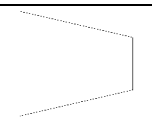
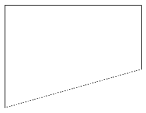
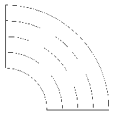
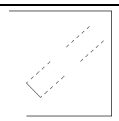
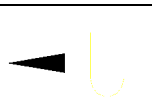
	M-REVISION_TRIANGLE.dwg	(Varies)	Revision Triangle
	M-SEC-DN-LEFT.dwg	(Varies)	Section, Detail, Elev. Callout
	M-SEC-DN-RIGHT.dwg	(Varies)	Section, Detail, Elev. Callout
	M-SEC-LEFT-BTM.dwg	(Varies)	Section, Detail, Elev. Callout
	M-SEC-LEFT-TOP.dwg	(Varies)	Section, Detail, Elev. Callout
	M-SEC-RIGHT-BTM.dwg	(Varies)	Section, Detail, Elev. Callout
	M-SEC-RIGHT-TOP.dwg	(Varies)	Section, Detail, Elev. Callout
	M-SECTION-MARK.dwg	(Varies)	Section
	M-SEC-UP-LEFT.dwg	(Varies)	Section, Detail, Elev. Callout
	M-SEC-UP-RIGHT.dwg	(Varies)	Section, Detail, Elev. Callout

1.21.4.4 HVAC DUCTWORK

Symbol	Block Name	Layer Name	Description
	ACCESS DOOR IN DUCT.dwg	(Varies)	Access Door in Duct
	AIR VENT – AUTOMATIC.dwg	(Varies)	Automatic Air Vent
	AIR VENT – MANUAL.dwg	(Varies)	Manual Air Vent

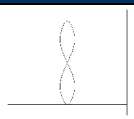
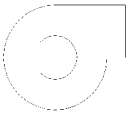
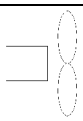
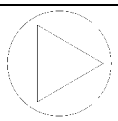
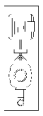
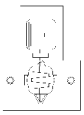
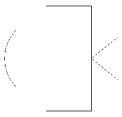
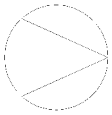
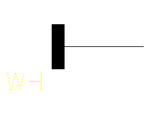
	CONTROL.dwg	(Varies)	Control
	DUCT FLEXIBLE CONNECTION.dwg	(Varies)	Flexible Duct Connection
	FILTER.dwg	(Varies)	Filter
	M-ACCESS_DOOR.dwg	(Varies)	Access Door Symbol for Ductwork & Equipment
	M-AIR_VENT.dwg	(Varies)	Air Vent
	M-COIL_COOLING.dwg	(Varies)	Cooling Coil
	M-COIL_HEATING.dwg	(Varies)	Heating Coil
	M-COIL_PRE_HT.dwg	(Varies)	Pre-Heating Coil
	M-DUCT_FLEX_CONNECT2.dwg	(Varies)	Flex Duct Connection
	M-EXPN_JNT.dwg	(Varies)	Pipe Expansion Joint Symbol
	M-FD.dwg	(Varies)	Fire Damper
	M-FSD.dwg	(Varies)	Fire Smoke Damper
	M-FSD_FD.dwg	(Varies)	Fire Smoke Damper
	M-MEASUR_STATION.dwg	(Varies)	Measurement Station

	M-SENS_RELAY.dwg	(Varies)	Current Sensing Relay
	M-SIGHT_GLASS.dwg	(Varies)	Sight Glass
	M-THERMOMETER.dwg	(Varies)	Thermometer
	M-VFD.dwg	(Varies)	Variable-Frequency Drive
	SIDE CONNECTED SUPPLY, RETURN OR EXHAUST DEVICE.dwg	(Varies)	Side-Connected Supply
	COMBINATION FIRE AND SMOKE DAMPER WITH DUCT ACCESS DOOR.dwg	(Varies)	Fire and Smoke Damper Combination with Duct Access Door
	FUSIBLE LINK FIRE DAMPER WITH DUCT ACCESS DOOR.dwg	(Varies)	Fusible Link Fire Damper with Duct Access Door
	M-M_B_CONTR_DAMP1.dwg	(Varies)	Multi-Blade Control Damper with Spring Opposed, Diaphragm Actuator w/o Positioner
	M-M_B_CONTR_DAMP.dwg	(Varies)	Multi-Blade Control Damper with Spring Diaphragm Actuator and Positioner
	M-MOTORIZED_DAMPER.dwg	(Varies)	Motorized Damper
	MOTORIZED DAMPER.dwg	(Varies)	Motorized Damper
	SMOKE DAMPER WITH DUCT ACCESS DOOR.dwg	(Varies)	Smoke Damper with Duct Access Door
	SPLITTER DAMPER.dwg	(Varies)	Splitter Damper
	VOLUME DAMPER.dwg	(Varies)	Volume Damper

	ACCOUSTICAL LINED DUCT.dwg	(Varies)	Acoustical Lined Duct
	DUCT SECTION CARRYING RETURN AIR.dwg	(Varies)	Duct Section Carrying Return Air
	DUCT SECTION CARRYING SUPPLY AIR.dwg	(Varies)	Duct Section Carrying Supply Air
	CONCENTRIC REDUCER.dwg	(Varies)	Concentric Reducer
	ECCENTRIC REDUCER.dwg	(Varies)	Eccentric Reducer
	ELBOW WITH TURNNG VANES – CIR.dwg	(Varies)	Elbow with Circular Turning Vanes
	ELBOW WITH TURNING VANES – RECT.dwg	(Varies)	Elbow with Rectangular Turning Vanes
	M-DOOR_LOUVERED.DWG	(Varies)	Louvered Door
	M-DOOR_UNDERCUT.DWG	(Varies)	Undercut Door
	M-DUCT_DN1.dwg	(Varies)	Duct Sloping Down Symbol
	M-DUCT_DN.dwg	(Varies)	Duct Sloping Down Symbol
	M-DUCT_FLEX_CONNECT1.dwg	(Varies)	Flexible Connection
	M-DUCT_UP1.dwg	(Varies)	Raise Duct Up Symbol
	M-DUCT_UP.dwg	(Varies)	Raise Duct Up Symbol

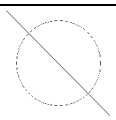
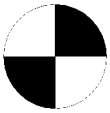
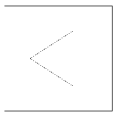
	SLOPING DROP IN DUCT IN DIRECTION OF ARROW.dwg	(Varies)	Sloping Drop in Duct (Direction of Arrow)
	SLOPING RISE IN DUCT IN DIRECTION OF ARROW.dwg	(Varies)	Sloping Rise in Duct (Direction of Arrow)

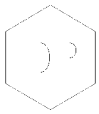
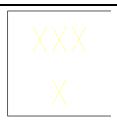
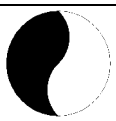
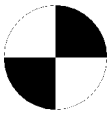
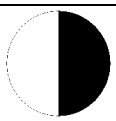
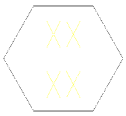
1.21.4.5 HVAC MECHANICAL EQUIPMENT

Symbol	Block Name	Layer Name	Description
	AXIAL FAN.dwg	(Varies)	Axial Fan
	M-FAN.dwg	(Varies)	Centrifugal Fan or Pump Symbol for Diagrams
	M-FAN_PROP.dwg	(Varies)	Propeller Fan Symbol
	M-PUMP.dwg	(Varies)	Pump Symbol
	M-PUMP_END_SUCT.dwg	(Varies)	End Suction Pump Symbol
	M-PUMPHORIZ_SPLIT.dwg	(Varies)	Horizontal Equal Split Pump Symbol
	M-UNIT_HEATER.dwg	(Varies)	Unit Heater
	PUMP.dwg	(Varies)	Pump
	WALL HYDRANT.dwg	(Varies)	Wall-Mounted Hydrant

1.21.4.6 HVAC MISCELLANEOUS

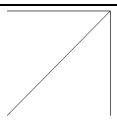
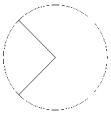
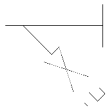
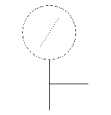
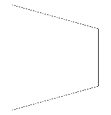
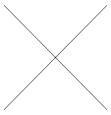
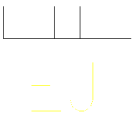
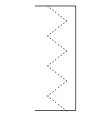
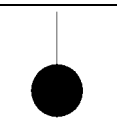
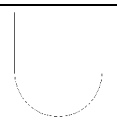
Symbol	Block Name	Layer Name	Description
	ARROW INDICATES DIRECTION OF FLOW.dwg	(Varies)	Direction of Flow

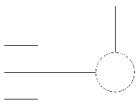
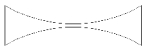
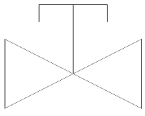
	BALL JOINTS.dwg	(Varies)	Ball Joints
	CONCEALED SPRINKLER HEAD.dwg	(Varies)	Concealed Sprinkler Head
	DUCT SIZE – FIRST SIZE INDICATES PLAN SIZE.dwg	(Varies)	Duct Size
	REMOVAL SPRINKLER HEAD TO BE REMOVED.dwg	(Varies)	Removal Sprinkler Head to be Removed
	M-AIRFLOW_RTN.DWG	(Varies)	Air Flow Directional Arrow (Negative Pressure)
	M-AIRFLOW_SUP.dwg	(Varies)	Air Flow Direction Arrow (Positive Pressure)
	M-ARROW_1.dwg	(Varies)	Air Flow Directional Arrow
	M-ARROW_FLOW.dwg	(Varies)	Fluid Flow Arrow Symbol
	M-CONNECT.dwg	(Varies)	Point of Connection
	M-DDC_AI.dwg	(Varies)	DDC Analog Input Signal
	M-DDC_AO.dwg	(Varies)	DDC Analog Output Signal
	M-DDC_DI.dwg	(Varies)	DDC Digital Input Signal
	M-DDC_DO.dwg	(Varies)	DDC Digital Output Signal
	M-DDC_SIGNAL_SELECT.dwg	(Varies)	DDC Signal Selector

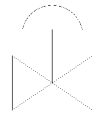
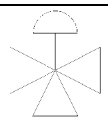
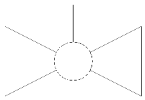
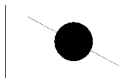
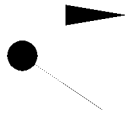
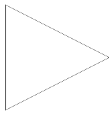
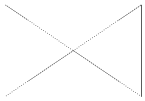
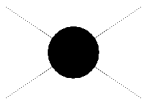
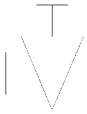
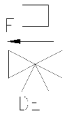
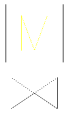
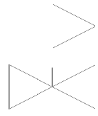
	M-DIFF_PRS_SWTCH.dwg	(Varies)	Pressure Differential Switch
	M-DISCONNECT.dwg	(Varies)	Point of Disconnection
	M-PIPE_BREAK.dwg	(Varies)	Pipe Break
	M-PIPE_RISERBOX.dwg	(Varies)	Riser Box
	M-PIPE_SECTION.dwg	(Varies)	Pipe Riser Symbol
	M-POINT_OF_CONNTECTION.dwg	(Varies)	Connection Between Removal and New
	M-POINT_OF_DISCONNECTION.dwg	(Varies)	Disconnection of Removal
	M-PRS_TRNSMTR.dwg	(Varies)	Pressure Transmitter
	M-TAG_EQUIP.dwg	(Varies)	Equipment Tag
	SIDEWALL SPRINKLER HEAD.dwg	(Varies)	Sidewall Sprinkler Head
	UPRIGHT SPRINKLER HEAD.dwg	(Varies)	Upright Sprinkler Head

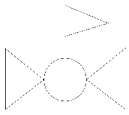
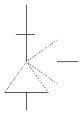
1.21.4.7 HVAC PIPING

Symbol	Block Name	Layer Name	Description
	CAPPED PIPE.dwg	(Varies)	Capped Pipe
	DIRT POCKET.dwg	(Varies)	Dirty Pocket

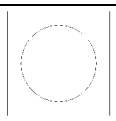
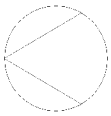
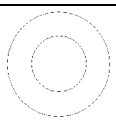
	DRIP ASSEMBLY.dwg	(Varies)	Drip Assembly
	FLOAT & THERMOSTATIC STEAM TRAP WITH BLOWDOWN VALVE.dwg	(Varies)	Float & Thermostatic Steam Trap with Blowdown Valve
	M-PIPE_ANCHOR.dwg	(Varies)	Pipe Anchor Symbol
	M-PIPE_STRAINER.dwg	(Varies)	Strainer with Blow-Off Valve
	M-PIPE_UNION.dwg	(Varies)	Pipe Union
	M-PRESSURE_GAUGE.dwg	(Varies)	Pressure Gauge with Cock
	M-REDUCER.dwg	(Varies)	Reducer
	PIPE ANCHOR.dwg	(Varies)	Pipe Anchor
	PIPE EXPANSION JOINT.dwg	(Varies)	Pipe Expansion Joint
	PIPE FLEXIBLE CONNECTION.dwg	(Varies)	Pipe Flexible Connection
	PIPE GUIDE.dwg	(Varies)	Pipe Guide
	PLUG FOR PRESSURE GAUGE AND THERMOMETER CONNECTION.dwg	(Varies)	Plug for Pressure Gauge and Thermometer Connection
	PLUMBING FIXTURE STOP.dwg	(Varies)	Plumbing Fixtures Stop
	STRAINER BASKET TYPE.dwg	(Varies)	Strainer Basket Type

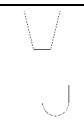
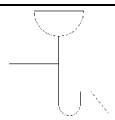
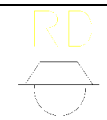
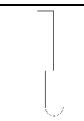
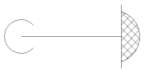
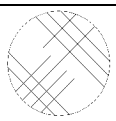
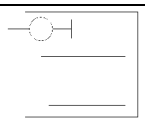
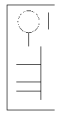
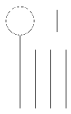
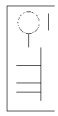
	STRAINER 'Y' TYPE WITH BLOWDOWN VALVE.dwg	(Varies)	Strainer 'Y' Type with Blowdown Valve
	UNION.dwg	(Varies)	Union
	VACUUM BREAKER.dwg	(Varies)	Vacuum Breaker
	VALVED CAPPED OUTLET – BALL.dwg	(Varies)	Valved, Capped Outlet – Ball
	VALVED CAPPED OUTLET – GATE.dwg	(Varies)	Valved, Capped Outlet – Gate
	VALVED CAPPED OUTLET – PLUG.dwg	(Varies)	Valved, Capped Outlet – Plug
	VENTURI FLOW METER.dwg	(Varies)	Venturi Flow Meter
	M-PIPE_DN.dwg	(Varies)	Pipe Turns Down Symbol
	M-PIPE_TAP.dwg	(Varies)	Bottom Tap Pipe Connection
	M-PIPE_UP.dwg	(Varies)	Pipe Turns Up Symbol
	PIPE DOWN.dwg	(Varies)	Pipe Down
	PIPE UP.dwg	(Varies)	Pipe Up
	BALL VALVE.dwg	(Varies)	Ball Valve
	LOCK-SHIELD VALVE.dwg	(Varies)	Lock-Shield Valve

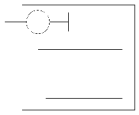
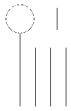
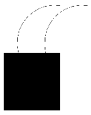
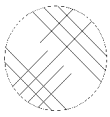
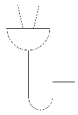
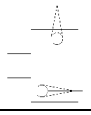
	LUBRICATED PLUG VALVE.dwg	(Varies)	Lubricated Plug Valve
	M-VALVE_AUTO.dwg	(Varies)	Automatic Valve
	M-VALVE_AUTO_3WAY.dwg	(Varies)	Three-Way Modulating Automatic Control Valve
	M-VALVE_BALL.dwg	(Varies)	Balancing Valve
	M-VALVE_BUTTERFLY.dwg	(Varies)	Butterfly Valve
	M-VALVE_CHECK1.dwg	(Varies)	Check Valve – Swing
	M-VALVE_CHECK.dwg	(Varies)	Check Valve – Lift
	M-VALVE_DIAPHRAGM.dwg	(Varies)	Diaphragm Operated Control Valve Spring Opposed with Positioner
	M-VALVE_GATE.dwg	(Varies)	Gate Valve
	M-VALVE_GLOBE.dwg	(Varies)	Globe Valve
	M-VALVE_LUBRICATION.dwg	(Varies)	Plug Valve
	M-VALVE_MISC.dwg	(Varies)	EP Control Valve
	M-VALVE_MOTORIZED.dwg	(Varies)	Motor-Operated Valve
	M-VALVE_PRESSURE_RED.dwg	(Varies)	Pressure-Reducing Valve

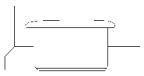
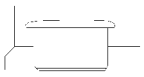
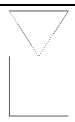
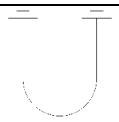
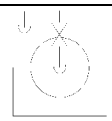
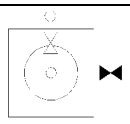
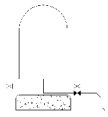
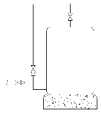
	M-VALVE_SOLONOID.dwg	(Varies)	Solenoid Valve
	PRESSURE REDUCING VALVE.dwg	(Varies)	Pressure-Reducing Valve
	RELIEF VALVE.dwg	(Varies)	Relief Valve

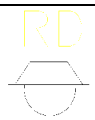
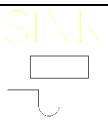
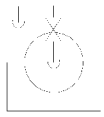
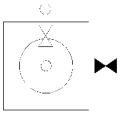
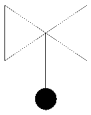
1.21.4.8 PLUMBING & FIRE PROTECTION ACCESSORIES

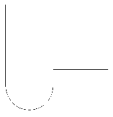
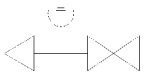
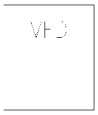
Symbol	Block Name	Layer Name	Description
	P-ALARM_BELL.dwg	(Varies)	Bell/Strobe
	P-ALARMHOR_N.dwg	(Varies)	Horn
	P-AREA_DRAIN.dwg	(Varies)	Area Drain
	P-BELL_STROBE.dwg	(Varies)	Bell Strobe
	P-BWV.dwg	(Varies)	Back Water Valve
	P-CLEANOUT.dwg	(Varies)	Cleanout
	P-CLEANOUT_DECK_PLATE.dwg	(Varies)	Cleanout Deck Plate
	P-CLEANOUT_ELEV.dwg	(Varies)	Cleanout (Elevation View)
	P-CONNECTION TEE.dwg	(Varies)	Tee Connection
	P-DOMCONT.dwg	(Varies)	Domestic Cont.

	P-DRAIN_FLOOR.dwg	(Varies)	Floor Drain
	P-DRAIN_FLOOR_RISER.dwg	(Varies)	Floor Drain Riser
	P-DRAIN_FUNNEL.dwg	(Varies)	Funnel Drain
	P-DRAIN_PTRAP_PRIMER.dwg	(Varies)	PTrap Drain Primer
	P-DRAIN_ROOF_RISER.dwg	(Varies)	Drain Riser
	P-DRAIN_STANDPIPE.dwg	(Varies)	Drain Standpipe
	P-FA_INLET.dwg	(Varies)	Fresh Air Inlet
	P-FA_INTAKE.dwg	(Varies)	Fresh Air Intake
	P-FD.dwg	(Varies)	Floor Drain
	P-FHC.dwg	(Varies)	Fire Hose Connection
	P-FHC_PLAN.dwg	(Varies)	Fire Hose Connection (Plan)
	P-FHR.dwg	(Varies)	Fire Hose Rack
	P-FHR_PLAN.dwg	(Varies)	Fire Hose Rack (Plan)
	P-FIRE_HOSE_CABINET_PLAN.dwg	(Varies)	Fire Hose & Cabinet

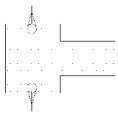
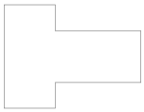
	P-FIRE_HOSE_CABINET_ELEV.dwg	(Varies)	Fire Hose & Cabinet (Elevation)
	P-FIRE_HOSE_RACK_ELEV.dwg	(Varies)	Fire Hose Rack (Elevation)
	P-FIRE_HOSE_RACK_PLAN.dwg	(Varies)	Fire Hose Rack (Plan)
	P-FLOOR_DRAIN.dwg	(Varies)	Drain Floor Pipe
	P-FLOW_METER.dwg	(Varies)	Flow Meter
	P-FLOW_SWITCH.dwg	(Varies)	Flow Switch
	P-FLUSH_WALL_MOUNTED_SIAME.dwg	(Varies)	Wall-Mounted Siamese Connection
	P-FREE_STANDING_SIAME.dwg	(Varies)	Free-Standing Siamese Connection
	P-FRESH_AIR_INTAKE.dwg	(Varies)	Fresh Air Intake
	P-FRESH_AIR_INTAKE_PLATE.dwg	(Varies)	Fresh Air Intake Plate
	P-FUNDRAIN.dwg	(Varies)	Drain
	P-GASBOOSTER.dwg	(Varies)	Gas Booster
	P-GAUGE_PRESSURE.dwg	(Varies)	Pressure Gauge
	P-GAUGE_THERMOMETER.dwg	(Varies)	Gauge Thermometer

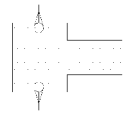
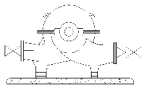
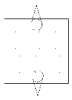
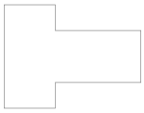
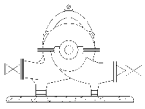
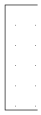
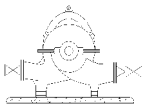
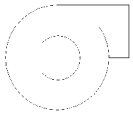
	P-GREASE_INTERCEPTOR.dwg	(Varies)	Grease Interceptor
	P-GREASEINTCPT.dwg	(Varies)	Grease Interceptor
	P-HB.dwg	(Varies)	Hose Bibb
	P-HORN.dwg	(Varies)	Horn
	P-HOSE_BIB.dwg	(Varies)	Hose Bibb
	P-HTRAP.dwg	(Varies)	House Trap (Riser)
	P-HVC.dwg	(Varies)	Hose Bibb Valve Connection
	P-HWATERHEAT.dwg	(Varies)	Hot Water Heater (Riser)
	P-MISCPMPRISE.dwg	(Varies)	Pump Riser (Miscellaneous)
	P-PIPE_CAP.dwg	(Varies)	Pipe Cap
	P-PIPE_TEE.dwg	(Varies)	Pipe Tee
	P-PNEUTANK.dwg	(Varies)	Pneumatic Tank
	P-PNEUTANKRISER.dwg	(Varies)	Pneumatic Tank (Riser)
	P-PREHEATRISER.dwg	(Varies)	Pre-Heater (Riser)

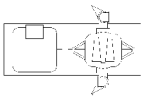
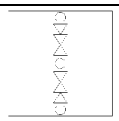
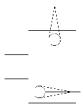
	P-RD.dwg	(Varies)	Roof Drain
	P-ROOF_MANIFOLD.dwg	(Varies)	Roof Manifold
	P-RPZ.dwg	(Varies)	RPZ (Riser)
	P-SHOWER.dwg	(Varies)	Shower
	P-SIAMESE_FREE_STANDING.dwg	(Varies)	Free-Standing Siamese
	P-SIAMESE_WALL_MOUNTED.dwg	(Varies)	Flush Wall-Mounted Siamese
	P-SINK.dwg	(Varies)	Sink
	P-SLAV.dwg	(Varies)	Lavatory (Riser)
	P-STANDDRAIN.dwg	(Varies)	Standpipe Drain
	P-TANK_HOTWATER.dwg	(Varies)	Hot Water Storage Tank
	P-TANK_PNEUMATIC.dwg	(Varies)	Pneumatic Tank
	P-TANKFLOAT.dwg	(Varies)	Tank Float
	P-THERMOMETER.dwg	(Varies)	Thermometer
	P-THERMOSTAT.dwg	(Varies)	Thermostat

	P-TR.dwg	(Varies)	Fixture P-Trap (Riser)
	P-TRPPRM_DRN.dwg	(Varies)	Floor Drain Primer with P-Trap Connection
	P-VACUUM_BREAKER.dwg	(Varies)	Vacuum Breaker
	P-VACUUM_BREAKER_ASSEMBLY.dwg	(Varies)	Vacuum Breaker Assembly
	P-VENTURBINPUMP.dwg	(Varies)	Turbine Pump
	P-VFD.dwg	(Varies)	Variable Frequency Drive
	P-VOR.dwg	(Varies)	Variable
	P-VRV.dwg	(Varies)	Variable Valve

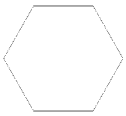
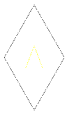
1.21.4.9 PLUMBING & FIRE PROTECTION MECHANICAL EQUIPMENT

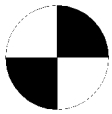
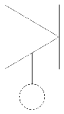
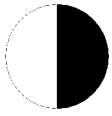
Symbol	Block Name	Layer Name	Description
	FP-AUTOFIREPUMP.dwg	(Varies)	Automatic Fire Pump
	FP-AUTOFPMPCTRL.dwg	(Varies)	Automatic Fire Pump Control
	FP-FIRE_PUMP_CONTROL_PANEL.dwg	(Varies)	Automatic Fire Pump Control Panel
	FP-FIRE_PUMP_JOCKEY.dwg	(Varies)	Jockey Pump Control Panel
	FP-FIRE_PUMP_MAIN_PAD.dwg	(Varies)	Fire Pump Main Pad

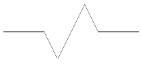
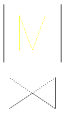
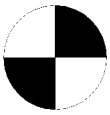
	FP-FIRE_PUMP_PANEL.dwg	(Varies)	Fire Pump Panel
	FP-HORIZSPLTCASEPMP.dwg	(Varies)	Horizontal Split Case Pump
	FP-JOCKEYPMP.dwg	(Varies)	Jockey Pump
	FP-JOCKEYPMPCTRL-PA.dwg	(Varies)	Manual Fire Pump Control
	FP-MANFIREPMP.dwg	(Varies)	Manual Fire Pump
	FP-MANFIREPMPCONTROL.dwg	(Varies)	Manual Fire Pump Control
	FP-MANUALFRPMP.dwg	(Varies)	Manual Fire Pump
	FP-PUMP_FIRE.dwg	(Varies)	Fire Pump
	FP-PUMPHORIZONTAL.dwg	(Varies)	Horizontal Pump
	FP-PUMP_JOCKEY.dwg	(Varies)	Jockey Pump (Plan)
	P-DOMPUMP.dwg	(Varies)	Domestic Water Pump
	P-FIRE_PUMP.dwg	(Varies)	Fire Pump
	P-FIRE_PUMP_VERT.dwg	(Varies)	Fire Pump (Riser)
	P-HWCIRCPMP.dwg	(Varies)	Hot Water Circulation Pump

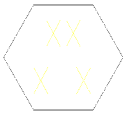
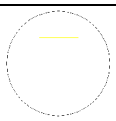
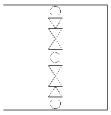
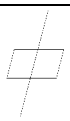
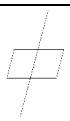
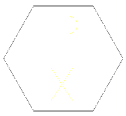
	P-PUMP.dwg	(Varies)	Pump (Plan)
	P-PUMP_DOMESTIC.dwg	(Varies)	Domestic Pump
	P-DUPLEX_EJECTOR_SUMP.dwg	(Varies)	Duplex Ejector/Sump Pump Discharge
	P-PUMP_GAS_BOOSTER.dwg	(Varies)	Gas Booster Pump
	P-PUMP_HW_CIRC.dwg	(Varies)	HW Circulation Pump (Riser)
	P-PUMP_VERT_TURBINE.dwg	(Varies)	Vertical Turbine Pump (Riser)

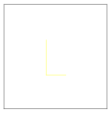
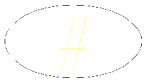
1.21.4.10 PLUMBING & FIRE PROTECTION MISCELLANEOUS

Symbol	Block Name	Layer Name	Description
	FP-HDETECT.dwg	(Varies)	Heat Detector
	MEC-CALLOUT.dwg	(Varies)	Callout for Plans
	Mec-SEC-MARK.dwg	(Varies)	Section Mark
	PA-BRK-PA.dwg	(Varies)	Break
	P-ALARM_VALVE.dwg	(Varies)	Alarm Valve
	P-B-671.dwg	(Varies)	Group Line Tag
	P-BKFLWPREVENT.dwg	(Varies)	Backflow Preventer

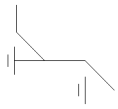
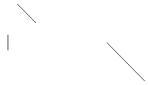
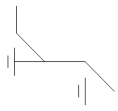
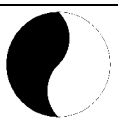
	P-BREAK_DUCT.dwg	(Varies)	Break Line
	P-BREAK_DUCT_DOUBLE.dwg	(Varies)	Double Break Lines
	P-BREAK_EQUIP.dwg	(Varies)	Break Line
	P-BREAK_EQUIP_DOUBLE.dwg	(Varies)	Double Break Lines
	P-BREAK_LINE2.dwg	(Varies)	Break Line Symbol for Double Linework
	P-CEN.dwg	(Varies)	Point of Connection
	P-CENLSYMB.dwg	(Varies)	Center Line Symbol
	P-CENTER_LINE.dwg	(Varies)	Center Line Symbol
	P-CUT2.dwg	(Varies)	Detail Symbol for Plans
	P-CUT3.dwg	(Varies)	Section Head
	P-CUT4.dwg	(Varies)	Section Line
	P-CWBD.dwg	(Varies)	Cold Water
	P-DELUGE_VALVE.dwg	(Varies)	Deluge Valve
	P-DEN.dwg	(Varies)	Point of Disconnect

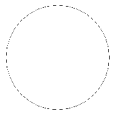
	P-DRY_VALVE.dwg	(Varies)	Dry Valve
	P-DUCT_BREAK.dwg	(Varies)	Duct Break
	P-METER.dwg	(Varies)	Meter
	P-MOTOR_OPERATED_VALVE.dwg	(Varies)	Motor-Operated Valve
	P-NCV.dwg	(Varies)	Check Valve
	P-NTAG.dwg	(Varies)	Tag
	P-POINT_OF_CONNECTION.dwg	(Varies)	Connection Between Removal and New
	P-POINT_OF_REMOVAL.dwg	(Varies)	Disconnection of Removal
	P-PRE_ACTION_VALVE.dwg	(Varies)	Pre-Action Valve
	P-PRESSURE_GAUGE.dwg	(Varies)	Pressure Gauge
	P-PTAG.dwg	(Varies)	Plumbing Tag
	P-PUMP_DISCHARGE.dwg	(Varies)	Pump Discharge
	P-REM.dwg	(Varies)	Removal Marker
	P-REMOVAL.dwg	(Varies)	Removal Marker

	P-REV.dwg	(Varies)	Revision Tag
	P-RISERBOX.dwg	(Varies)	Riser Box
	P-SMOKE_DETECTOR_(DUCT).dwg	(Varies)	Duct Smoke Detector
	P-SOLENOID_VALVE.dwg	(Varies)	Solenoid Valve
	P-SPACE_THERMOSTAT_SENSOR.dwg	(Varies)	Space Thermostat Sensor
	P-SPUMP.dwg	(Varies)	Supply Pump
	P-SQF.dwg	(Varies)	Area Tag
	P-SQUARE_FEET.dwg	(Varies)	Square Feet
	P-SY.dwg	(Varies)	Plumbing Tag
	P-SYM42.dwg	(Varies)	Tag
	P-SYM43.dwg	(Varies)	Tag
	P-SYM45.dwg	(Varies)	Tag
	P-TAG.dwg	(Varies)	Plumbing Tag
	P-TAG_CIRC1.dwg	(Varies)	Circle Tag

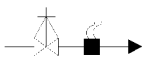
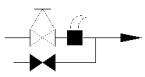
	P-TAG_CIRC_2.dwg	(Varies)	Riser Tag
	P-TAG_HEX.dwg	(Varies)	Hexagonal Tag
	P-TAG_SQU.dwg	(Varies)	Square Tag
	P-TAG_EQUIP.dwg	(Varies)	Equipment Tag
	P-VR.dwg	(Varies)	Pressure-Reducing Valve
	P-XTAG.dwg	(Varies)	Number Tag

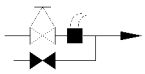
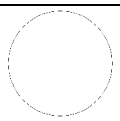
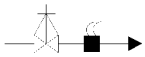
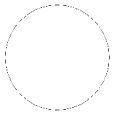
1.21.4.11 PLUMBING & FIRE PROTECTION PIPING

Symbol	Block Name	Layer Name	Description
	FP-WALLHYP.dwg	(Varies)	Wall-Mounted Connection
	P-2A.dwg	(Varies)	Double Cleanout
	P-14A.dwg	(Varies)	Cleanout
	P-CLEANOUT_RISER.dwg	(Varies)	Riser Cleanout
	P-CLEANOUT_RISER_CONNECTION.dwg	(Varies)	Riser Cleanout Connection
	P-LAVTRP.dwg	(Varies)	P-Trap
	P-PIPE.dwg	(Varies)	Pipe Riser Symbol

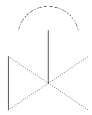
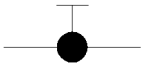
	P-PIPE_BREAK.dwg	(Varies)	Pipe Break Symbol
	P-PIPE_BRK.dwg	(Varies)	Pipe Break Symbol
	P-PIPE_CONN.dwg	(Varies)	Pipe Connection
	P-PIPE_CONNECTION.dwg	(Varies)	New Pipe Connection
	P-PIPE_DN.dwg	(Varies)	Elbow Down
	P-PIPE_TEE_DN.dwg	(Varies)	Tee Down
	P-PIPE_UP.dwg	(Varies)	Pipe Up
	P-TEE_DN.dwg	(Varies)	Tee Down
	P-UNDER.dwg	(Varies)	Sub-Surface Piping

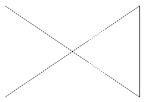
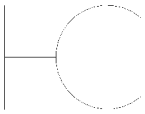
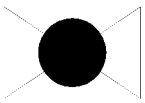
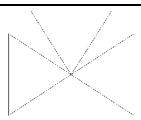
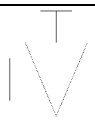
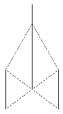
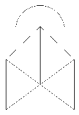
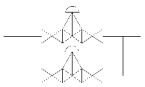
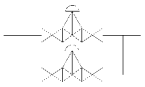
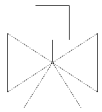
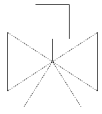
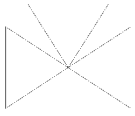
1.21.4.12 PLUMBING & FIRE PROTECTION SPRINKLERS

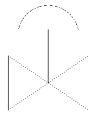
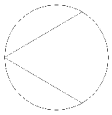
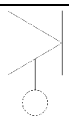
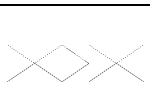
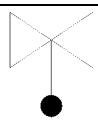
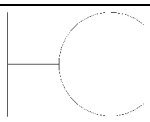
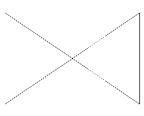
Symbol	Block Name	Layer Name	Description
	P-PENDANT_SPRINKLER_ON_DROP_NIPPLE.dwg	(Varies)	Pendant Sprinkler on Drop Nipple
	P-SIDEWALL_SPRINKLER.dwg	(Varies)	Sidewall Sprinkler
	P-SPKARR.dwg	(Varies)	Sprinkler
	P-SPKR.dwg	(Varies)	Sprinkler

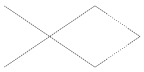
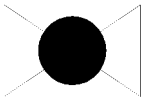
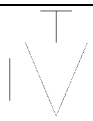
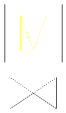
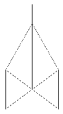
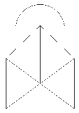
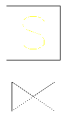
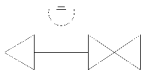
	P-SPRINKLER_SIDEWALL.dwg	(Varies)	Sidewall Sprinkler
	P-SPRINKLER_PENDANT.dwg	(Varies)	Pendant Sprinkler
	P-SPRINKLER_RIG_ASSEMBLY.dwg	(Varies)	Sprinkler Rig Assembly
	P-SPRINKLER_UPRIGHT.dwg	(Varies)	Upright Sprinkler
	P-SPRINKLER_VALVE_FLOW.dwg	(Varies)	Sprinkler Control Valve with Flow Switch
	P-UPRIGHT_SPRINKLER.dwg	(Varies)	Upright Sprinkler

1.21.4.13 PLUMBING & FIRE PROTECTION VALVES

Symbol	Block Name	Layer Name	Description
	P-AUTOMATIC_VALVE.dwg	(Varies)	Automatic Valve
	P-BALL_VALVE.dwg	(Varies)	Ball Valve Symbol
	P-BUTTERFLY_VALVE.dwg	(Varies)	Butterfly Valve
	P-CHECK_VALVE.dwg	(Varies)	Check Valve
	P-DOUBLECV.dwg	(Varies)	Double Check Valve
	P-FIRE_HOSE_VALVE.dwg	(Varies)	Fire Hose Valve
	P-GASVALVE.dwg	(Varies)	Gas Valve

	P-GATE_VALVE.dwg	(Varies)	Gate Valve
	P-GATE_VALVE_VERT.dwg	(Varies)	Gate Valve (Vertical)
	P-GLOBE_VALVE.dwg	(Varies)	Globe Valve
	P-HOLBYVALVE.dwg	(Varies)	Holby Valve
	P-LUBRICATION_VALVE.dwg	(Varies)	Lubrication Valve
	P-OSY.dwg	(Varies)	OS&Y Valve
	P-PRV.dwg	(Varies)	PRV
	P-PRV_RISER.dwg	(Varies)	PRV (Riser)
	P-PRVSERIES_PARR.dwg	(Varies)	PRV Series
	P-P-VALVE_OSY_VERTICAL.dwg	(Varies)	OS&Y Valve
	P-RV.dwg	(Varies)	PRV
	P-THREE_WAY_AUTO_VALVE.dwg	(Varies)	Three-Way Automatic Valve
	P-VALVE_3_WAY_AUTO.dwg	(Varies)	3-Way Automatic Valve
	P-VALVE_MIXING.dwg	(Varies)	Mixing Valve

	P-VALVE_ALARM.dwg	(Varies)	Alarm Valve
	P-VALVE_AUTOMATIC.dwg	(Varies)	Automatic Valve
	P-VALVE_BACK_WATER.dwg	(Varies)	Back Water Valve
	P-VALVE_BALL_DRIP.dwg	(Varies)	Check Valve with Automatic Ball Drip
	P-VALVE_BUTTERFLY.dwg	(Varies)	Butterfly Valve
	P-VALVE_CHECK.dwg	(Varies)	Check Valve
	P-VALVE_DELUGE.dwg	(Varies)	Deluge Valve
	P-VALVE_DOUBLE_GATE_CHECK.dwg	(Varies)	Double Gate & Check Valve Assembly
	P-VALVE_DOUBLE_GATE_DOUBLE_CHECK.dwg	(Varies)	Double Gate Valve with Double Check Valve Assembly
	P-VALVE_DRY.dwg	(Varies)	Dry Valve
	P-VALVE_FLOAT.dwg	(Varies)	Float Valve
	P-VALVE_GAS_CONTROL.dwg	(Varies)	Gas Control Valve
	P-VALVE_GATE_VERT.dwg	(Varies)	Gate Valve (Vertical)
	P-VALVE_GATE.dwg	(Varies)	Gate Valve

	P-VALVE_GATE_CHECK.dwg	(Varies)	Single Gate & Check Valve Assembly
	P-VALVE_GLOBE.dwg	(Varies)	Globe Valve
	P-VALVE_LUBRICATION.dwg	(Varies)	Lubrication Valve
	P-VALVE_MOTORIZED.dwg	(Varies)	Motor-Operated Valve
	P-VALVE_NORMALLY_CLOSED.dwg	(Varies)	Normally-Closed Valve
	P-VALVE_OSY.dwg	(Varies)	OS & Y Valve
	P-VALVE_PRE-ACTION.dwg	(Varies)	Pre-Action Valve
	P-VALVE_PRESSURE_RELEASE.dwg	(Varies)	Pressure-Release Valve
	P-VALVE_PRV.dwg	(Varies)	Pressure-Regulating Valve
	P-VALVE_SOLENOID.dwg	(Varies)	Solenoid Valve
	P-VALVE_VACUUM.dwg	(Varies)	Vacuum Breaker Assembly

1.22 APPENDIX G – STRUCTURAL DISCIPLINE

1.22.1 CONTENT PREFERENCES

This Section Is Currently Under Construction

1.22.2 LAYER STRATAGEM

1.22.2.1 STRUCTURAL WORK

DISCIPLINE	MAJOR	MINOR	DESC	COLOR	LINETYPE	PLOTS	DESCRIPTION
S	ANNO	BUBL		212	Continuous	Yes	Column Bubble
S	ANNO	DIMS		2	Continuous	Yes	Structural Dimensions
S	ANNO	GRID		223	CENTER2	Yes	Grid Line
S	ANNO	KEYN		2	Continuous	Yes	Keynote / leader Insertion Layer
S	ANNO	KPLN		2	Continuous	Yes	Key Plan Graphic Drafting/ Insertion Layer
S	ANNO	TEXT		3	Continuous	Yes	Structural Annotation (with Leaders)
S	ANNO	NOTE		3	Continuous	Yes	Structural Block Notes, General Notes, Legends etc..
S	ANNO	NPLT		7	Continuous	Yes	Non-Plotting Layer
S	ANNO	RVSN	CLD_	121	Continuous	Yes	Revision Clouds
S	ANNO	RVSN	TRNG	4	Continuous	Yes	Revision Triangle
S	ANNO	SYMB		71	Continuous	Yes	Block Insertion Layer
S	ANNO	SCHD		2	Continuous	Yes	Schedules, Tables Line work and AutoCAD Table Insertion Layer
S	ANNO	SUBT		140	Continuous	Yes	Subtitle
S	ANNO	TITL		211	Continuous	Yes	Drawing Titles (Block)
S	ANNO	TTBL		7	Continuous	Yes	Project Contract Border Insertion Layer
S	ANNO	VPRT		8	Continuous	No	Viewport (Mview) Creation Layer/ XCLIP Boundaries
S	ANNO	MLIN		2	PHANTOM2	Yes	Matchline Graphics
S	ANNO	WELD		2	Continuous	Yes	Structural Welding Symbology
S	AREA	CLIM		220	Continuous	Yes	Contract Limit Line
S	AREA			2	BORDER2	Yes	Boundary Area Line
S	BEAM	HIDN		212	HIDDEN2	Yes	Structural Beam Obscured by Foreground Objects
S	BEAM	TEXT		3	Continuous	No	Text Relating to Beams (Sizes)
S	BEAM	STL_		212	Continuous	Yes	Structural Steel Beams
S	BEAM	STL_	HIDN	220	Continuous	Yes	Structural Steel Beams Hidden
S	BEAM	STL_	STFN	223	Continuous	Yes	Structural Beam Stiffener
S	BEAM	CONC		4	Continuous	Yes	Structural Concrete Beams, Including Precast
S	BEAM	TMBR		2	Continuous	Yes	Structural Timber Beams
S	BEAM			2	Continuous	Yes	Structural Beams
S	BRCE	HIDN		2	HIDDEN2	Yes	Structural Bracing Element Obscured by Foreground Element
S	BRCE	STL_		212	Continuous	Yes	Structural Steel Bracing
S	BRCE	MISC		2	Continuous	Yes	Miscellaneous Structural Bracing
S	BRCE			2	Continuous	Yes	Structural Bracing
S	COLS	HIDN		212	HIDDEN2	Yes	Structural Columns Obscured By Foreground Objects
S	COLS	TEXT		3	Continuous	No	Text Relating to Column (Sizes)
S	COLS	STL_		210	Continuous	Yes	Structural Steel Column or Post
S	COLS	STL_	BSPL	212	Continuous	Yes	Baseplate for Structural Steel Column
S	COLS	TMBR		2	Continuous	Yes	Timber Column
S	COLS	MSRY		230	Continuous	Yes	Masonry Column/Pier
S	COLS	CONC		2	Continuous	Yes	Concrete Column
S	COLS			2	Continuous	Yes	Structural Column
S	DETL			2	Continuous	Yes	Structural Detail Line (Medium Lineweight)
S	DETL	HEVY		2	Continuous	Yes	Structural Detail Line (Thick Lineweight)
S	DETL	FINE		4	Continuous	Yes	Structural Detail Line (Thin Lineweight)
S	DETL	XFIN		1	Continuous	Yes	Structural Detail Line (Very Thin Lineweight)
S	DETL	TEXT		3	Continuous	Yes	Text Related to Structural Details
S	DETL	ABLT		2	Continuous	Yes	Anchor Bolts, Clips and Fasteners
S	DETL	FRAM		3	Continuous	Yes	Framing Members in Details
S	DETL	STL_		2	Continuous	Yes	Miscellaneous Steel Detail Linework (Medium Lineweight)
S	DETL	STL_	MISC	2	Continuous	Yes	Miscellaneous Steel Detail Linework (Thin Lineweight)

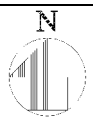
S	DETL	CONC		2	Continuous	Yes	Miscellaneous Concrete Detail Linework
S	DETL	TMBR		2	Continuous	Yes	Miscellaneous Timber Detail Linework
S	DETL	MSRY		230	Continuous	Yes	Miscellaneous Masonry Detail Linework, Clips, Anchors, Etc..
S	EQPM	TEXT		3	Continuous	Yes	Text Associated with Equipmetnt Appearing on Structural Plans, Details, Etc…
S	EQPM			2	Continuous	Yes	Equipment Appearing on Structural Plans, Details, Etc.…
S	FLOR			3	Continuous	Yes	Floor/ Slab Edge, Openings and Depressions
S	FLOR	ABVE		1	DASHED2	Yes	Floor/ Slab Above
S	FLOR	DECK		2	Continuous	Yes	Metal Decking
S	FLOR	MCUT		2	Continuous	Yes	Floor Materials Cut Outline
S	FLOR			3	Continuous	Yes	Floor/ Slab Edge, Openings and Depressions
S	FLOR	ABVE		1	DASHED2	Yes	Floor/ Slab Above
S	FLOR	DECK		2	Continuous	Yes	Metal Decking
S	FLOR	MCUT		2	Continuous	Yes	Floor Materials Cut Outline
S	FTNG			2	Continuous	Yes	Structural Foundation Footings (Medium Detail)
S	FTNG	BLOW		2	Continuous	Yes	Structural Footings Below
S	FTNG	HIDN		1	HIDDEN2	Yes	Footing Elements Obscured by Foreground Objects
S	PATT	STL_		223	Continuous	Yes	Steel Hatch Patterns
S	PATT	CONC		223	Continuous	Yes	Concrete/Mortar Fill Hatch Patterns
S	PATT	TMBR		223	Continuous	Yes	Wood Grain Patterns
S	PATT	MSRY		223	Continuous	Yes	Masonry Hatch Patterns
S	PATT	SCLN		2	Continuous	Yes	Scorelines, Cut Lines, Expansion Joints, Etc..
S	PATT	FILL		252	Continuous	Yes	Earth Fill Hatch Patterns
S	PATT	GRVL		252	Continuous	Yes	Gravel Fill Hatch Patterns
S	GNRL	EQPM		10	Continuous	Yes	General Equipment
S	GNRL	EQPM	HIDN	10	HIDDEN2	Yes	General Equipment Hidden
S	GNRL	EQPM	PHAN	10	PHANTOM2	Yes	General Equipment Phantom
S	GRID			223	CENTER	Yes	Structural Grid
S	GRID	MINR		8	CENTER2	Yes	Structural Grid - Minor or Partial Grids
S	GRID	SYMB		212	Continuous	Yes	Column Identification Bubbles
S	GNRL	EQPM		10	Continuous	Yes	General Equipment
S	GNRL	EQPM	HIDN	10	HIDDEN2	Yes	General Equipment Hidden
S	GNRL	EQPM	PHAN	10	PHANTOM2	Yes	General Equipment Phantom
S	GRID			223	CENTER	Yes	Structural Grid
S	GRID	MINR		8	CENTER2	Yes	Structural Grid - Minor or Partial Grids
S	GRID	SYMB		212	Continuous	Yes	Column Identification Bubbles
S	JOIS			2	Continuous	Yes	Structural Joists
S	JOIS	ABVE		2	DASHED2	Yes	Structural Joists Above
S	PILE	HIDN		212	HIDDEN2	Yes	Piles Obscured by Foreground Objects
S	PILE	STL_		210	Continuous	Yes	Structural Steel Piles
S	PILE	TMBR		2	Continuous	Yes	Timber Piles
S	PILE			2	Continuous	Yes	Structural Piles
S	RBAR			201	Continuous	Yes	Structural Steel Reinforcing Bar
S	RBAR	TIES		2	Continuous	Yes	Structural Steel Reinforcing Ties, Bridging, Stirrups, Etc..
S	RENF	HIDN		201	HIDDEN2	Yes	Miscellaneous Reinforcing Elements
S	RENF	WMSH		212	WWF	Yes	Welded Wire Fabric Mesh
S	REFN			6	Continuous	Yes	Reinforcing Elements
S	ROOF	DECK		2	Continuous	Yes	Metal Roof Decking
S	ROOF	OTLN		2	Continuous	Yes	Outline of Roof, Openings and Changes in Elevation
S	ROOF	PATT		223	Continuous	Yes	Hatch Patterns On Roofing Plans and Details
S	ROOF	ABVE		1	DASHED2	Yes	Roof Elements Above
S	ROOF	BLOW		1	Continuous	Yes	Roof Elements Below
S	ROOF			3	Continuous	Yes	Structural Roof Elements
S	TRUS			212	Continuous	Yes	Trusses and Space Frames
S	TRUS	ABVE		2	DASHED2	Yes	Trusses and Space Frames Above
S	WALL	HIDN		4	HIDDEN2	Yes	Wall Element Obscured by Foreground Element
S	WALL	SHEA		4	Continuous	Yes	Structural Shear Walls
S	WALL	RETN		2	Continuous	Yes	Retaining Walls
S	WALL	PATT		8	Continuous	Yes	Hatch Patterns in Wall Elements
S	WALL	MSRY		2	Continuous	Yes	Masonry Wall Linework, Brick/Block Coursing, ETC…
S	WALL	CONC		4	Continuous	Yes	Structural Concrete Walls
S	WALL			2	Continuous	Yes	Structural Walls
S	XREF			7	Continuous	Yes	External Reference Attachment Layer
S	XREF	RAST		7	Continuous	Yes	Image Reference Attachment Layer

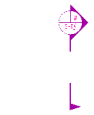
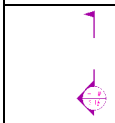
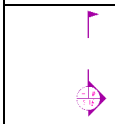
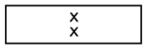
1.22.3 LINETYPES

Name	Description	Example
BORDER2	BORDER2	
CENTER	CENTER	
CENTER2	CENTER2	
Continuous	Continuous	
DASHED2	DASHED2	
HIDDEN	HIDDEN	
HIDDEN2	HIDDEN2	
PHANTOM2	PHANTOM2	
WWF	WWF	

1.22.4 SYMBOLS

1.22.4.1 MISCELLANEOUS

Symbol	Block Name	Layer Name	Description
	CALLOUT.dwg	(Varies)	Callout Symbol
	CLine.dwg	S-ANNO-SYMB	Center Line
	Col-Bubble1.dwg	S-GNRL-BUBL	Column Bubble
	Col-Bubble2.dwg	S-GNRL-BUBL	Column Bubble
	DET-SYMB.dwg	S-ANNO-SYMB	Detail Callout
	Legend1.dwg	S-ANNO-SYMB	Legend
	N_Arrow.dwg	S-ANNO-SYMB	North Arrow
	Plate.dwg	S-ANNO-SYMB	Plate
	Rev-Tr.dwg	(Varies)	Revision Tag
	Sec1.dwg	S-ANNO-SYMB	Section, Detail, Elevation Callout, View to North
	Sec2.dwg	S-ANNO-SYMB	Section, Detail, Elevation Callout, View to North
	Sec3.dwg	S-ANNO-SYMB	Section, Detail, Elevation Callout, View to South
	Sec4.dwg	S-ANNO-SYMB	Section, Detail, Elevation Callout, View to South

	Sec5.dwg	S-ANNO-SYMB	Section, Detail, Elevation Callout, View to West
	Sec6.dwg	S-ANNO-SYMB	Section, Detail, Elevation Callout, View to East
	Sec7.dwg	S-ANNO-SYMB	Section, Detail, Elevation Callout, View to West
	Sec8.dwg	S-ANNO-SYMB	Section, Detail, Elevation Callout, View to East
	Sect-Mk_Detail.dwg	S-ANNO-SYMB	Section Mark Symbol
	Stamp1.dwg	S-ANNO-SYMB	Percent Complete/Date Stamp
	Sub-Title.dwg	S-ANNO-SUBT	Sub-Title
	Title.dwg	S-ANNO-TITL	Title
	WF.dwg	S-ANNO-SYMB	Wide Flange (Depth WF Weight)

1.23 APPENDIX H – TRAFFIC DISCIPLINE

1.23.1 CONTENT PREFERENCES

This Section Currently Under Construction

1.23.2 LAYER STRATAGEM

1.23.2.1 TRAFFIC WORK

DISCIPLINE	MAJOR	MINOR	DESC	COLOR	LINETYPE	PLOTS	DESCRIPTION
T	ANNO			212	Continuous	Yes	Generic Annotation Features
T	ANNO	DIMS		37	Continuous	Yes	Dimensions
T	ANNO	MLIN		13	Continuous	Yes	Match Lines
T	ANNO	NPLT		7	Continuous	No	Non Plot Features
T	ANNO	SYMB		110	Continuous	Yes	Generic Symbols
T	ANNO	TEXT		212	Continuous	Yes	Miscellaneous Annotations and Callouts
T	ANNO	TTLB		110	Continuous	Yes	Title Block and Contract Border Information
T	ANNO	REVS	0001	80	Continuous	Yes	Revision Cloud - PACC
T	ANNO	REVS	TEXT	212	Continuous	Yes	Revision Delta and Text in Drawing & Contract Border
T	ANNO	VPRT		7	Continuous	No	Viewport
T	DVCS			110	Continuous	Yes	Generic Device Features
T	DVCS	ATTN		110	Continuous	Yes	Impact Attenuator
T	DVCS	BARR	WFB_	110	Continuous	Yes	WaterFilled Barriers
T	DVCS	BARR	CONC	110	Continuous	Yes	Concrete Barriers
T	DVCS	BARR	TMBR	110	Continuous	Yes	Timber Barriers
T	DVCS	DIMS		37	Continuous	Yes	Device Dimensions
T	DVCS	DLIN		110	Continuous	Yes	Delineator
T	DVCS	FENC		110	Continuous	Yes	Fencing
T	DVCS	GDRL	BOX_	110	Continuous	Yes	Box Beam Guide Rail
T	DVCS	GDRL	WBM_	110	Continuous	Yes	W Beam Guide Rail
T	DVCS	GDRL	THRI	110	Continuous	Yes	Thrie Beam Guide Rail
T	DVCS	TEXT		212	Continuous	Yes	Device Annotations
T	MARK			220	Continuous	Yes	Generic Pavement Markings
T	MARK	HIDN		220	Hidden	Yes	Pavment Markings Obscured by Other Objects
T	MARK	BLL_		220	BrokenLane	Yes	Broken Lane Line - 15-25
T	MARK	DOT_		220	NJDOT	Yes	NJ DOT - 10-30
T	MARK	NJTP		220	NJTPK	Yes	NJ Turnpike Lane Line - 30-10
T	MARK	DLLL		220	DottedLane4	Yes	Dotted Lane Line - 2-4
T	MARK	DLLS		220	DottedLane2	Yes	Dotted Lane Line - 2-2
T	MARK	DIMS		37	Continuous	Yes	Pavment Marking Dimensions
T	MARK	SYMB		220	Continuous	Yes	Marking Symbols - Directional Arrows
T	MARK	TEXT		212	Continuous	Yes	Marking Annotations and Leaders
T	MARK	WORD		220	Continuous	Yes	Marking Words - Stop/MPH/etc.
T	SGNL			110	Continuous	Yes	Generic Signal Features
T	SGNL	ABVE		110	Continuous	Yes	Above Ground Signal Equipment
T	SGNL	COND		110	Dashed	Yes	Signal Conduit
T	SGNL	DIMS	POLE	37	Continuous	Yes	Signal Pole Location Dimensions
T	SGNL	DIMS	HEAD	37	Continuous	Yes	Signal Head Dimensions
T	SGNL	JBOX		110	Continuous	Yes	Signal Junction Box
T	SGNL	LOOP		110	Dashed	Yes	Signal Loop or Video Zone
T	SGNL	TEXT		212	Continuous	Yes	Signal Annotations
T	SGNL	TEXT	HEAD	212	Continuous	Yes	Signal Head Annotations
T	SIGN			110	Continuous	Yes	Sign Panels
T	SIGN	DIMS		37	Continuous	Yes	Sign Dimensions and Leaders
T	SIGN	SYMB		110	Continuous	Yes	Sign Symbols
T	SIGN	TEXT		212	Continuous	Yes	Sign Annotations and Callouts
T	PAVE			80	Continuous	Yes	Paving Features
T	PAVE	ASPH		12	Continuous	Yes	Asphault Pavement
T	PAVE	BRDR	PATT	14	Continuous	Yes	Pavement Hatch Borders
T	PAVE	CONC		12	Continuous	Yes	Concrete Pavement
T	PAVE	CURB	BACK	1	Continuous	Yes	Back of Curb
T	PAVE	CURB	FACE	131	Continuous	Yes	Face of Curb

T	PAVE	DIMS		37	Continuous	Yes	Pavement Dimensions
T	PAVE	GRAV		12	Continuous	Yes	Gravel Pavement
T	PAVE	JBAR		220	Continuous	Yes	Jersey Barriers
T	PAVE	JNTS		220	Continuous	Yes	Expansion Joints
T	PAVE	LIMT		13	Dashed	Yes	Paving Limits
T	SITE			80	Continuous	Yes	Site Features
T	SITE	ABUT		131	Continuous	Yes	Bridge Abutments
T	SITE	ABVE		250	Continuous	Yes	Site Elements Overhead
T	SITE	BLDG	TEXT	212	Continuous	Yes	Building and Shed Annotations
T	SITE	BLDG		131	Continuous	Yes	Building and Shed Features
T	SITE	COLS		191	Continuous	Yes	Columns, Piers and Posts
T	SITE	FNCE		131	FENCE	Yes	Fence Lines
T	SITE	FNDN		131	Continuous	Yes	Foundations
T	SITE	LAND		131	Continuous	Yes	Landscape Features
T	SITE	SWLK		80	Continuous	Yes	Sidewalk
T	SITE	TEXT		212	Continuous	Yes	Sitework Text
T	SITE	WALL		131	Continuous	Yes	Walls
T	XREF			7	Continuous	Yes	External Reference Drawings
T	XREF	RAST		7	Continuous	Yes	Raster Images

1.23.2.2 MAINTENANCE OF TRAFFIC WORK

DISCIPLINE	MAJOR	MINOR	DESC	PHASE	COLOR	LINETYPE	PLOTS	DESCRIPTION
T	ANNO	DIMS		_MPT	37	Continuous	Yes	Maintainance Of Traffic Patterns Dimensions
T	ANNO	TEXT		_MPT	212	Continuous	Yes	Maintainance Of Traffic Patterns Miscellaneous Annotations And Callouts
T	DVCS			_MPT	110	Continuous	Yes	Maintainance Of Traffic Patterns Generic Device Features
T	DVCS	ATTN		_MPT	110	Continuous	Yes	Maintainance Of Traffic Patterns Impact Attenuator
T	DVCS	BARR	WFB_	_MPT	110	Continuous	Yes	Maintainance Of Traffic Patterns Waterfilled Barriers
T	DVCS	BARR	CONC	_MPT	110	Continuous	Yes	Maintainance Of Traffic Patterns Concrete Barriers
T	DVCS	BARR	TMBR	_MPT	110	Continuous	Yes	Maintainance Of Traffic Patterns Timber Barriers
T	DVCS	DIMS		_MPT	37	Continuous	Yes	Maintainance Of Traffic Patterns Device Dimensions
T	DVCS	DLIN		_MPT	110	Continuous	Yes	Maintainance Of Traffic Patterns Delineator
T	DVCS	FENC		_MPT	110	Continuous	Yes	Maintainance Of Traffic Patterns Fencing
T	DVCS	GDRL	BOX_	_MPT	110	Continuous	Yes	Maintainance Of Traffic Patterns Box Beam Guide Rail
T	DVCS	GDRL	WBM_	_MPT	110	Continuous	Yes	Maintainance Of Traffic Patterns W Beam Guide Rail
T	DVCS	GDRL	THRI	_MPT	110	Continuous	Yes	Maintainance Of Traffic Patterns Thrie Beam Guide Rail
T	DVCS	TEXT		_MPT	212	Continuous	Yes	Maintainance Of Traffic Patterns Device Annotations
T	MARK			_MPT	220	Continuous	Yes	Maintainance Of Traffic Patterns Generic Pavement Markings
T	MARK	HIDN		_MPT	220	Hidden	Yes	Maintainance Of Traffic Patterns Pavment Markings Obscured By Other Objects
T	MARK	BLL_		_MPT	220	BrokenLane	Yes	Maintainance Of Traffic Patterns Broken Lane Line - 15-25
T	MARK	DOT_		_MPT	220	NJDOT	Yes	Maintainance Of Traffic Patterns Nj Dot - 10-30
T	MARK	NJTP		_MPT	220	NJTPK	Yes	Maintainance Of Traffic Patterns Nj Turnpike Lane Line - 30-10
T	MARK	DLLL		_MPT	220	DottedLane4	Yes	Maintainance Of Traffic Patterns Dotted Lane Line - 2-4
T	MARK	DLLS		_MPT	220	DottedLane2	Yes	Maintainance Of Traffic Patterns Dotted Lane Line - 2-2
T	MARK	DIMS		_MPT	37	Continuous	Yes	Maintainance Of Traffic Patterns Pavment Marking Dimensions
T	MARK	SYMB		_MPT	220	Continuous	Yes	Maintainance Of Traffic Patterns Marking Symbols - Directional Arrows
T	MARK	TEXT		_MPT	212	Continuous	Yes	Maintainance Of Traffic Patterns Marking Annotations And Leaders
T	MARK	WORD		_MPT	220	Continuous	Yes	Maintainance Of Traffic Patterns Marking Words - Stop/Mph/Etc.
T	SGNL			_MPT	110	Continuous	Yes	Maintainance Of Traffic Patterns Generic Signal Features
T	SGNL	ABVE		_MPT	110	Continuous	Yes	Maintainance Of Traffic Patterns Above Ground Signal Equipment
T	SGNL	COND		_MPT	110	Dashed	Yes	Maintainance Of Traffic Patterns Signal Conduit
T	SGNL	DIMS	POLE	_MPT	37	Continuous	Yes	Maintainance Of Traffic Patterns Signal Pole Location Dimensions
T	SGNL	DIMS	HEAD	_MPT	37	Continuous	Yes	Maintainance Of Traffic Patterns Signal Head Dimensions
T	SGNL	JBOX		_MPT	110	Continuous	Yes	Maintainance Of Traffic Patterns Signal Junction Box
T	SGNL	LOOP		_MPT	110	Dashed	Yes	Maintainance Of Traffic Patterns Signal Loop Or Video Zone
T	SGNL	TEXT		_MPT	212	Continuous	Yes	Maintainance Of Traffic Patterns Signal Annotations
T	SGNL	TEXT	HEAD	_MPT	212	Continuous	Yes	Maintainance Of Traffic Patterns Signal Head Annotations
T	SIGN			_MPT	110	Continuous	Yes	Maintainance Of Traffic Patterns Sign Panels
T	SIGN	DIMS		_MPT	37	Continuous	Yes	Maintainance Of Traffic Patterns Sign Dimensions And Leaders
T	SIGN	SYMB		_MPT	110	Continuous	Yes	Maintainance Of Traffic Patterns Sign Symbols

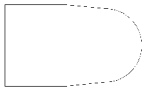
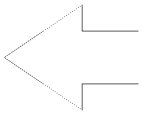
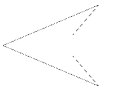
T	SIGN	TEXT		_MPT	212	Continuous	Yes	Maintainance Of Traffic Patterns Sign Annotations And Callouts
T	PAVE			_MPT	80	Continuous	Yes	Maintainance Of Traffic Patterns Paving Features
T	PAVE	ASPH		_MPT	12	Continuous	Yes	Maintainance Of Traffic Patterns Asphault Pavement
T	PAVE	BRDR	PATT	_MPT	14	Continuous	Yes	Maintainance Of Traffic Patterns Pavement Hatch Borders
T	PAVE	CONC		_MPT	12	Continuous	Yes	Maintainance Of Traffic Patterns Concrete Pavement
T	PAVE	CURB	BACK	_MPT	1	Continuous	Yes	Maintainance Of Traffic Patterns Back Of Curb
T	PAVE	CURB	FACE	_MPT	131	Continuous	Yes	Maintainance Of Traffic Patterns Face Of Curb
T	PAVE	DIMS		_MPT	37	Continuous	Yes	Maintainance Of Traffic Patterns Pavement Dimensions
T	PAVE	GRAV		_MPT	12	Continuous	Yes	Maintainance Of Traffic Patterns Gravel Pavement
T	PAVE	JBAR		_MPT	220	Continuous	Yes	Maintainance Of Traffic Patterns Jersey Barriers
T	PAVE	JNTS		_MPT	220	Continuous	Yes	Maintainance Of Traffic Patterns Expansion Joints
T	PAVE	LIMT		_MPT	13	Dashed	Yes	Maintainance Of Traffic Patterns Paving Limits
T	SITE			_MPT	80	Continuous	Yes	Maintainance Of Traffic Patterns Site Features
T	SITE	ABUT		_MPT	131	Continuous	Yes	Maintainance Of Traffic Patterns Bridge Abutments
T	SITE	ABVE		_MPT	250	Continuous	Yes	Maintainance Of Traffic Patterns Site Elements Overhead
T	SITE	BLDG	TEXT	_MPT	212	Continuous	Yes	Maintainance Of Traffic Patterns Building And Shed Annotations
T	SITE	BLDG		_MPT	131	Continuous	Yes	Maintainance Of Traffic Patterns Building And Shed Features
T	SITE	COLS		_MPT	191	Continuous	Yes	Maintainance Of Traffic Patterns Columns, Piers And Posts
T	SITE	FNCE		_MPT	131	FENCE	Yes	Maintainance Of Traffic Patterns Fence Lines
T	SITE	FNDN		_MPT	131	Continuous	Yes	Maintainance Of Traffic Patterns Foundations
T	SITE	LAND		_MPT	131	Continuous	Yes	Maintainance Of Traffic Patterns Landscape Features
T	SITE	SWLK		_MPT	80	Continuous	Yes	Maintainance Of Traffic Patterns Sidewalk
T	SITE	TEXT		_MPT	212	Continuous	Yes	Maintainance Of Traffic Patterns Sitework Text
T	SITE	WALL		_MPT	131	Continuous	Yes	Maintainance Of Traffic Patterns Walls

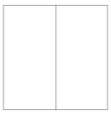
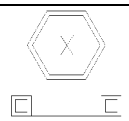
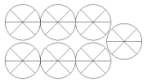
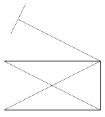
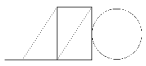
1.23.3 LINETYPES

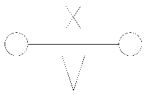
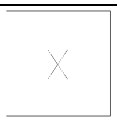
Name	Description	Example
BROKENLANE		
Continuous	Continuous	
DASHED	Dashed (1x)	
DOTTEDLANE2		
DOTTEDLANE4		
FENCE		
GUIDEB		
GUIDET		
GUIDEW		
HIDDEN		
HIDDEN2		
NJDOT		
NJTPK		

1.23.4 SYMBOLS

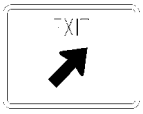
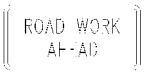
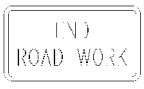
1.23.4.1 REMOVAL

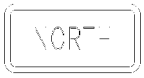
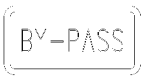
Symbol	Block name	Layer Name	Description
	Cantilever sign structure with changeable message panel-removal.dwg	(Varies)	Cantilever Sign Structure with Changeable Message Panel
	Cantilever sign structure with fixed message-removal.dwg	(Varies)	Cantilever Sign Structure with Fixed Message
	Crash cushion attenuator-removal.dwg	(Varies)	Crash Cushion Attenuator
	Curbed traffic guide system posts with base plate (without c)-removal.dwg	(Varies)	Curbed Traffic Guide System Posts with Base Plate (Without C)
	Direction of traffic (permanent conditions)-removal.dwg	(Varies)	Direction of Traffic (Permanent Conditions)
	Double post mounted sign with changeable message panel-removal.dwg	(Varies)	Double Post-Mounted Sign with Changeable Message Panel
	Removal sign panel to be modified-removal.dwg	(Varies)	Removal Sign Panel to be Modified
	Fence mounted sign with fixed message panel-removal.dwg	(Varies)	Fence-Mounted Sign With Fixed Message Panel
	Gantry sign structure with changeable message panels-removal.dwg	(Varies)	Gantry Sign Structure with Changeable Message Panels
	Gantry sign structure with fixed message panels-removal.dwg	(Varies)	Gantry Sign Structure with Fixed Message Panels
	Pavement marking arrow symbol (type a-e)-removal.dwg	(Varies)	Pavement Marking Arrow Symbol (Type A-E)
	Pavement marking line-removal.dwg	(Varies)	Pavement Marking Line
	Pedestrian push button standard with Identification-removal.dwg	(Varies)	Pedestrian Push-Button Standard with Identification

	Pole mounted back to back signs with fixed message panels-removal.dwg	(Varies)	Pole-Mounted Back-to-Back Signs with Fixed Message Panels
	Pole mounted right angle signs with fixed message panels-removal.dwg	(Varies)	Pole-Mounted Right Angle Signs with Fixed Message Panels
	Pole mounted sign with fixed message panel-removal.dwg	(Varies)	Pole-Mounted Sign with Fixed Message Panel
	Post mounted back to back signs with fixed message panels-removal.dwg	(Varies)	Post-Mounted Back-to-Back Signs with Fixed Message Panels
	Post mounted right angle signs with fixed message panels-removal.dwg	(Varies)	Post-Mounted Right-Angle Signs with Fixed Message Panels
	Post mounted sign with fixed message panel-removal.dwg	(Varies)	Post-Mounted Sign with Fixed Message Panel
	Reflectorized pavement marker-removal.dwg	(Varies)	Reflectorized Pavement Marker
	Roadway surveillance sensor with Identification-removal.dwg	(Varies)	Roadway Surveillance Sensor with Identification
	Sand barrel array-removal.dwg	(Varies)	Sand-Barrel Array
	Sign panel Identification-removal.dwg	(Varies)	Sign Panel Identification
	Sign structure location Identification-removal.dwg	(Varies)	Sign Structure Location Identification
	Signal controller and cabinet ground mounted-removal.dwg	(Varies)	Signal Controller and Cabinet, Pole-Mounted
	Signal controller and cabinet pole mounted-removal.dwg	(Varies)	Signal Controller and Cabinet, Pole-Mounted
	Traffic guide posts-removal.dwg	(Varies)	Traffic Guide Posts

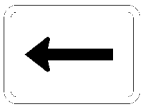
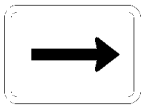
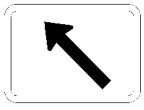
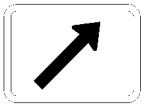
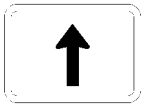
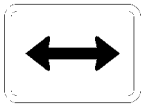
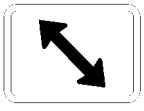
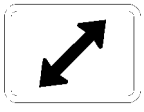
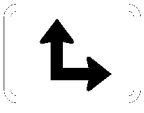
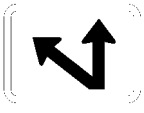
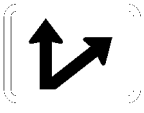
	Traffic post top side of pole mounted signal-removal.dwg	(Varies)	Traffic Post Top Side of Pole-Mounted Signal
	Traffic signal span wire installation with span length-removal.dwg	(Varies)	Traffic Signal Span Wire Installation with Span Length
	Traffic signal standard with Identification-removal.dwg	(Varies)	Traffic Signal Standard with Identification
	Traffic signal standard with mast arm length-removal.dwg	(Varies)	Traffic Signal Standard with Mast Arm Length
	Vehicular signal head with Identification-removal.dwg	(Varies)	Vehicular Signal Head with Identification

1.23.4.2 GUIDE

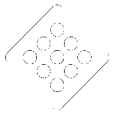
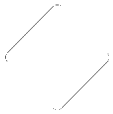
Symbol	Block Name	Layer Name	Description
	D9-5.dwg	(Varies)	Reserved Handicapped Parking
	E5-1.dwg	(Varies)	Exit to Right in Distance
	E5-1L.dwg	(Varies)	Exit to Left – Immediate
	E5-1Lx.dwg	(Varies)	Exit to Left in Distance
	E5-1R.dwg	(Varies)	Exit to Right – Immediate
	E5-1Rx.dwg	(Varies)	Exit to Right in Distance
	G20-1f.dwg	(Varies)	“Road Work Ahead” Sign
	G20-2.DWG	(Varies)	“End Road Work” Sign

	M1-1.DWG	(Varies)	Interstate Route Number Sign
	M1-4-3..DWG	(Varies)	Interstate Route Number Sign – 3 Digits
	M1-4.DWG	(Varies)	Roadway Route Number Sign – 2 Digits
	M1-5.DWG	(Varies)	Roadway Route Number Sign – 2 Digits
	M2-1.DWG	(Varies)	Juncture Sign
	M3-1.DWG	(Varies)	“North” Sign
	M3-2.DWG	(Varies)	“East” Sign
	M3-3.DWG	(Varies)	“South” Sign
	M3-4.DWG	(Varies)	“West” Sign
	M4-1.DWG	(Varies)	“Alternate” Sign
	M4-1a.dwg	(Varies)	“ALT” Sign
	M4-2.DWG	(Varies)	“By-Pass” Sign
	M4-3.dwg	(Varies)	“Business” Sign
	M4-4.dwg	(Varies)	“Truck” Sign

	M4-5.dwg	(Varies)	"To" Sign
	M4-6.dwg	(Varies)	"End" Sign
	M4-7.dwg	(Varies)	"Temporary" Sign
	M4-8.dwg	(Varies)	"Detour" Sign
	M4-8a.dwg	(Varies)	"End Detour" Sign
	M4-9l.dwg	(Varies)	Detour Left
	M4-9lx.dwg	(Varies)	Detour Left, In Distance
	M4-9r.dwg	(Varies)	Detour Right
	M4-9rx.dwg	(Varies)	Detour Right, In Distance
	M4-9x.dwg	(Varies)	Detour Ahead
	M4-10l.dwg	(Varies)	Detour – Turn Left
	M4-10r.dwg	(Varies)	Detour – Turn Right
	M5-1L.dwg	(Varies)	Left Turn Ahead
	M5-1R.dwg	(Varies)	Right Turn Ahead

	M5-2L.dwg	(Varies)	Approaching Left Turn
	M5-2R.dwg	(Varies)	Approaching Right Turn
	M6-1l.dwg	(Varies)	Turn Left
	M6-1r.dwg	(Varies)	Turn Right
	M6-2l.dwg	(Varies)	Merge Left
	M6-2r.dwg	(Varies)	Merge Right
	M6-3.dwg	(Varies)	Continue Straight
	M6-4.dwg	(Varies)	Must Turn Left or Right
	M6-5l.dwg	(Varies)	Must Bear Left or Turn Right
	M6-5r.dwg	(Varies)	Must Bear Right or Turn Left
	M6-6L.dwg	(Varies)	Lane Must Proceed Straight or Turn Left
	M6-6R.dwg	(Varies)	Lane Must Proceed Straight or Turn Right
	M6-7L.dwg	(Varies)	Lane Must Proceed Straight or Bear Left
	M6-7R.dwg	(Varies)	Lane Must Proceed Straight or Bear Right

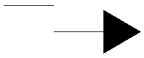
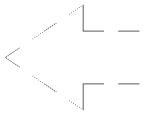
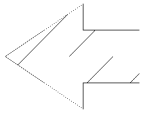
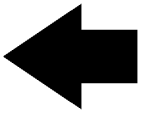
1.23.4.3 MARKER

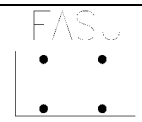
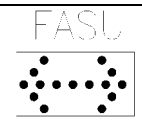
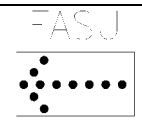
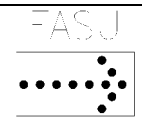
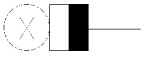
Symbol	Block Name	Layer Name	Description
	ERM-1818YY.dwg	(Varies)	Diamond Reflector Sign – Bright Color
	OM-3L.DWG	(Varies)	Rectangular Reflector Sign – Diagonals, Up to Left
	OM-3R.DWG	(Varies)	Rectangular Reflective Sign – Diagonals, Up to Right
	OM-612-3.DWG	(Varies)	Rectangular Reflective Sign – Blank
	OM-612.DWG	(Varies)	Rectangular Reflective Sign – Circular Reflectors
	OM-1818Y.DWG	(Varies)	Diamond Reflective Sign
	OM-1818YB.dwg	(Varies)	Diamond Reflector Sign – Dark Color

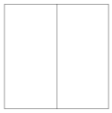
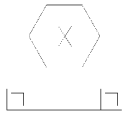
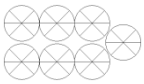
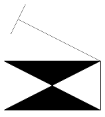
1.23.4.4 MISCELLANEOUS

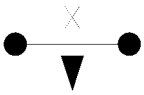
Symbol	Block Name	Layer Name	Description
	LIGHT.DWG	(Varies)	Single Light Symbol
	LIGHTS.DWG	(Varies)	Two Lights Symbol
	S-3.DWG	(Varies)	“Bridge Will be Closed” Sign
	S-4.DWG	(Varies)	“Plan Alt. Route” Sign

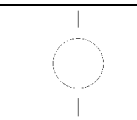
1.23.4.5 PROPOSED

Symbol	Block Name	Layer Name	Description
	Back-up vehicle with flashing lights only-proposed.dwg	(Varies)	Back-Up Vehicle with Flashing Lights Only
	Back-up vehicle with impact attenuator and fasu-proposed.dwg	(Varies)	Back-Up Vehicle with Impact Attenuator and FASU
	Back-up vehicle with impact attenuator without fasu-proposed.dwg	(Varies)	Back-Up Vehicle with Impact Attenuator without FASU
	Breakaway barricades (type iii) with attached sign-proposed.dwg	(Varies)	Breakaway Barricades (Type III), with Attached Sign
	Breakaway barricades (type iii)-proposed.dwg	(Varies)	Breakaway Barricades (Type III)
	Cantilever sign structure with changeable message panel-proposed.dwg	(Varies)	Cantilever Sign Structure with Changeable Message Panel
	Cantilever sign structure with fixed message-proposed.dwg	(Varies)	Cantilever Sign Structure with Fixed Message
	Contractor's vehicle-proposed.dwg	(Varies)	Contractor's Vehicle
	Crash cushion attenuator-proposed.dwg	(Varies)	Crash Cushion Attenuator
	Curbed traffic guide system posts with base plate (without c)-proposed.dwg	(Varies)	Curbed Traffic Guide System Posts with Base Plate (Without C)
	Direction of detour (temporary traffic flow)-proposed.dwg	(Varies)	Direction of Detour (Temporary Traffic Flow)
	Direction of haul route-proposed.dwg	(Varies)	Direction of Haul Route
	Direction of traffic (permanent conditions)-proposed.dwg	(Varies)	Direction of Traffic (Permanent Conditions)

	Double post mounted sign with changeable message panel-proposed.dwg	(Varies)	Double Post-Mounted Sign with Changeable Message Panel
	Fence mounted sign with fixed message panel-proposed.dwg	(Varies)	Fence-Mounted Sign with Fixed Message Panel
	Flagger location-proposed.dwg	(Varies)	Flagger Location
	Flashing arrow sign unit (fasu) caution mode indication-proposed.dwg	(Varies)	Flashing Arrow Sign Unit (FASU) Caution Mode Indication
	Flashing arrow sign unit (fasu) double arrow indication-proposed.dwg	(Varies)	Flashing Arrow Sign Unit (FASU) Double-Arrow Indication
	Flashing arrow sign unit (fasu) left arrow indication-proposed.dwg	(Varies)	Flashing Arrow Sign Unit (FASU) Left Arrow Indication
	Flashing arrow sign unit (fasu) right arrow indication-proposed.dwg	(Varies)	Flashing Arrow Sign Unit (FASU) Right Arrow Indication
	Gantry sign structure with changeable message panels-proposed.dwg	(Varies)	Gantry Sign Structure with Changeable Message Panels
	Gantry sign structure with fixed message panels-proposed.dwg	(Varies)	Gantry Sign Structure with Fixed Message Panels
	Pavement marking arrow symbol (type a-e)-proposed.dwg	(Varies)	Pavement Marking Arrow Symbol (Type A-E)
	Pavement marking line-proposed.dwg	(Varies)	Pavement Marking Line
	Pedestrian push button standard with Identification-proposed.dwg	(Varies)	Pedestrian Push-Button Standard with Identification
	Pedestrian signal head with Identification-proposed.dwg	(Varies)	Pedestrian Signal Head with Identification
	Plastic delineator drums with attached warning lights-proposed.dwg	(Varies)	Plastic Delineator Drums with Attached Warning Lights

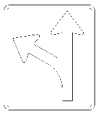
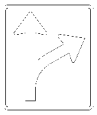
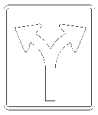
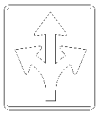
	Plastic delineator drums-proposed.dwg	(Varies)	Plastic Delineator Drums
	Pole mounted back to back signs with fixed message panels-proposed.dwg	(Varies)	Pole-Mounted Back-to-Back Signs with Fixed Message Panels
	Pole mounted right angle signs with fixed message panels-proposed.dwg	(Varies)	Pole Mounted Right-Angle Signs with Fixed Message Panels
	Pole mounted sign with fixed message panel-proposed.dwg	(Varies)	Pole-Mounted Sign with Fixed Message Panel
	Reflectorized pavement marker-proposed.dwg	(Varies)	Reflectorized Pavement Marker
	Roadway surveillance sensor with Identification-proposed.dwg	(Varies)	Roadway Surveillance Sensor with Identification
	Sand barrel array-proposed.dwg	(Varies)	Sand-Barrel Array
	Sand filled barriers-proposed.dwg	(Varies)	Sand-Filled Barriers
	Sign on temporary sign stand-proposed.dwg	(Varies)	Sign on Temporary Sign Stand
	Sign panel Identification-proposed.dwg	(Varies)	Sign Panel Identification
	Sign structure location Identification-proposed.dwg	(Varies)	Sign Structure Location Identification
	Signal controller and cabinet ground mounted-proposed.dwg	(Varies)	Signal Controller and Cabinet, Ground-Mounted
	Signal controller and cabinet pole mounted-proposed.dwg	(Varies)	Signal Controller and Cabinet, Pole-Mounted
	Temporary impact attenuator-proposed.dwg	(Varies)	Temporary Impact Attenuator

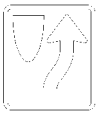
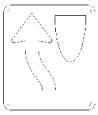
	Temporary reflectorized pavement marker-proposed.dwg	(Varies)	Temporary Reflectorized Pavement Marker
	Tra-callout.dwg	(Varies)	Callout Symbol
	Tra-det-symb.dwg	(Varies)	Detail Symbol
	Traffic cone-proposed.dwg	(Varies)	Traffic Cone
	Traffic cones-proposed.dwg	(Varies)	Traffic Cones
	Traffic guide posts-proposed.dwg	(Varies)	Traffic Guide Posts
	Traffic lane or other area closed to traffic-proposed.dwg	(Varies)	Traffic Lane or Other Area Closed to Traffic
	Traffic post top side of pole mounted signal-proposed.dwg	(Varies)	Traffic Post Top Side of Pole-Mounted Signal
	Traffic signal span wire installation with span length-proposed.dwg	(Varies)	Traffic Signal Span Wire Installation with Span Length
	Traffic signal standard with Identification-proposed.dwg	(Varies)	Traffic Signal Standard with Identification
	Traffic signal standard with mast arm length-proposed.dwg	(Varies)	Traffic Signal Standard with Mast Arm Length
	Trailer mounted flashing arrow sign unit (fasu)-proposed.dwg	(Varies)	Trailer-Mounted Flashing Arrow Sign Unit (FASU)
	Trailer mounted variable message sign unit (vmsu)-proposed.dwg	(Varies)	Trailer-Mounted Flashing Variable Message Sign Unit (VMSU)
	Tra-sec-mark.dwg	(Varies)	Section Mark

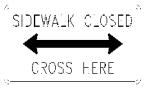
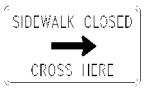
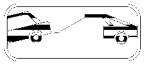
	Vehicle detector with Identification-proposed.dwg	(Varies)	Vehicle Detector with Identification
	Vehicular signal head with Identification-proposed.dwg	(Varies)	Vehicular Signal Head with Identification
	Warning lights (two)(type a b or c)-proposed.dwg	(Varies)	Warning Lights (Two)(Type A, B, or C)
	Warning lights (type a b or c)-proposed.dwg	(Varies)	Warning Lights (Type A, B, or C)
	Work area-proposed.dwg	(Varies)	Work Area

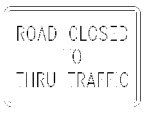
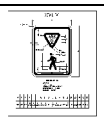
1.23.4.6 REGULATORY

Symbol	Block Name	Layer Name	Description
	E11-1.DWG	(Varies)	“Exit Only” Sign
	KR7-1016a.dwg	(Varies)	“No Parking” Sing
	R1-1.DWG	(Varies)	Stop Sign
	R1-2.DWG	(Varies)	Yield Sign
	R2-1.DWG	(Varies)	Speed Limit Sign
	R2-5a.dwg	(Varies)	“Reduced Speed Ahead” Sign
	R2-5b.dwg	(Varies)	Reduced Speed Sign with Posted Speed
	R2-5c.dwg	(Varies)	“Speed Zone Ahead” Sign

	R3-1.DWG	(Varies)	Right Turn Prohibited
	R3-2.DWG	(Varies)	Left Turn Prohibited
	R3-3.DWG	(Varies)	“No Turns” Sign
	R3-4.DWG	(Varies)	U-Turn Prohibited Sign
	R3-5.DWG	(Varies)	Left Turn Only Ahead
	R3-6.DWG	(Varies)	Exit on Left Ahead
	R3-7.DWG	(Varies)	“Left Lane Must Turn Left” Sign
	R3-8.DWG	(Varies)	Two-Lane Sign for Left Turns and Proceeding Straight
	R3-21.DWG	(Varies)	U-Turn Sign
	R3-23.DWG	(Varies)	Proceed Straight Only
	R3-24.DWG	(Varies)	Right Turn Only Ahead
	R3-26.DWG	(Varies)	Exit on Right Ahead
	R3-27.DWG	(Varies)	Left or Right Turn Only Ahead
	R3-28.DWG	(Varies)	Left or Right Turn, or Proceed Straight, Ahead

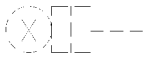
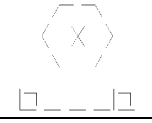
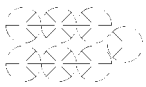
	R3-32.DWG	(Varies)	“Right Lane Must Turn Left” Sign
	R3-33.DWG	(Varies)	“Thru Traffic Use Left Lane” Sign
	R3-34.DWG	(Varies)	“Thru Traffic Use Center Lane” Sign
	R3-35.DWG	(Varies)	“Thru Traffic Use Right Lane” Sign
	R4-1.DWG	(Varies)	“Do Not Pass” Sign
	R4-2.DWG	(Varies)	“Pass with Care” Sign
	R4-5.DWG	(Varies)	“Trucks Use Right Lane” Sign
	R4-7.DWG	(Varies)	Keep to Right of Divider
	R4-8.DWG	(Varies)	Keep to Left of Divider
	R4-9.DWG	(Varies)	“Stay in Lane”
	R5-1.DWG	(Varies)	“Do Not Enter” Sign
	R5-1a.dwg	(Varies)	“Wrong Way” Sign
	R5-2.DWG	(Varies)	Trucks Prohibited
	R5-6.DWG	(Varies)	Bicycles Prohibited

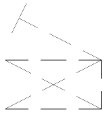
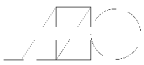
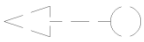
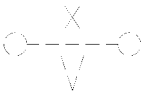
	R5-7.DWG	(Varies)	Pedestrian Crosswalk Sign
	R5-8.DWG	(Varies)	“Sidewalk Closed” Sign
	R5-9.DWG	(Varies)	Sidewalk Closed – Alternative Crossing Location (Either Left or Right)
	R5-9a.dwg	(Varies)	Sidewalk Closed – Alternative Crossing Location (Left)
	R5-9b.dwg	(Varies)	Sidewalk Closed – Alternative Crossing Location (Right)
	R6-1L.DWG	(Varies)	Horizontal One Way to Left Sign
	R6-1R.DWG	(Varies)	Horizontal One Way to Right Sign
	R6-2L.DWG	(Varies)	Vertical One Way to Left Sign
	R6-2R.DWG	(Varies)	Vertical One Way to Right Sign
	R7-4.dwg	(Varies)	Standing Prohibited Sign (General Vicinity)
	R7-4L.dwg	(Varies)	Standing Prohibited Sign (To Left)
	R7-4R.dwg	(Varies)	Standing Prohibited Sign (To Right)
	R7-201a.dwg	(Varies)	Tow Away Zone Sign
	R8-3a.dwg	(Varies)	Parking Prohibited Sign

	R8-8.dwg	(Varies)	“Do Not Stop on Tracks” Sign
	R9-3a.dwg	(Varies)	Crossing Prohibited Sign
	R11-2.DWG	(Varies)	“Road Closed” Sign
	R11-3.DWG	(Varies)	“Road Closed Ahead - Local Traffic Only” Sign
	R11-4.DWG	(Varies)	“Road Closed to Thru Traffic” Sign
	R12-2.DWG	(Varies)	“Weight Limit 10 Tons” Sign
	R15-1.DWG	(Varies)	Railroad Crossing
	Yield to pedestrian.dwg	(Varies)	Yield to Pedestrian Sign

1.23.4.7 REMOVAL

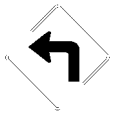
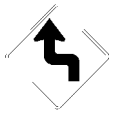
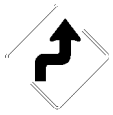
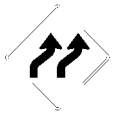
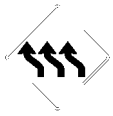
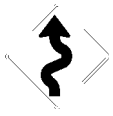
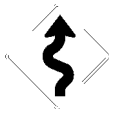
Symbol	Block Name	Layer Name	Description
	Cantilever sign structure with changeable message panel-removal.dwg	(Varies)	Cantilever Sign Structure with Changeable Message Panel
	Cantilever sign structure with fixed message-removal.dwg	(Varies)	Cantilever Sign Structure with Fixed Message
	Crash cushion attenuator-removal.dwg	(Varies)	Crash Cushion Attenuator
	Curbed traffic guide system posts with base plate (without c)-removal.dwg	(Varies)	Curbed Traffic Guide System Posts with Base Plate (Without C)
	Double post mounted sign with changeable message panel-proposed.dwg	(Varies)	Double Post-Mounted Sign with Changeable Message Panel

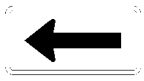
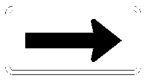
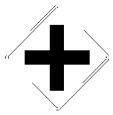
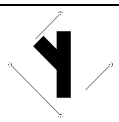
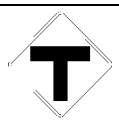
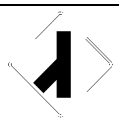
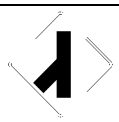
	Removal sign panel to be relocated-removal.dwg	(Varies)	Fence-Mounted Sign with Fixed Message Panel
	Fence mounted sign with fixed message panel-removal.dwg	(Varies)	Flagger Location
	Gantry sign structure with changeable message panels-removal.dwg	(Varies)	Gantry Sign Structure with Changeable Message Panels
	Gantry sign structure with fixed message panels-removal.dwg	(Varies)	Gantry Sign Structure with Fixed Message Panels
	Pavement marking arrow symbol (type a-e)-removal.dwg	(Varies)	Pavement Marking Arrow Symbol (Type A-E)
	Pavement marking line-removal.dwg	(Varies)	Pavement Marking Line
	Pedestrian push button standard with Identification-removal.dwg	(Varies)	Pedestrian Push-Button Standard with Identification
	Pedestrian signal head with Identification-removal.dwg	(Varies)	Pedestrian Signal Head with Identification
	Pole mounted back to back signs with fixed message panels-removal.dwg	(Varies)	Pole-Mounted Back-to-Back Signs with Fixed Message Panels
	Pole mounted right angle signs with fixed message panels-removal.dwg	(Varies)	Pole Mounted Right-Angle Signs with Fixed Message Panels
	Pole mounted sign with fixed message panel-removal.dwg	(Varies)	Pole-Mounted Sign with Fixed Message Panel
	Reflectorized pavement marker-removal.dwg	(Varies)	Reflectorized Pavement Marker
	Roadway surveillance sensor with Identification-removal.dwg	(Varies)	Roadway Surveillance Sensor with Identification
	Sand barrel array-removal.dwg	(Varies)	Sand-Barrel Array

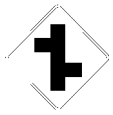
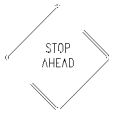
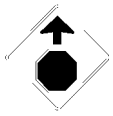
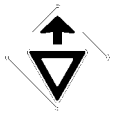
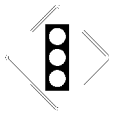
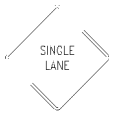
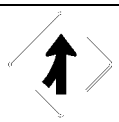
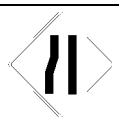
	Sign panel Identification-removal.dwg	(Varies)	Sign Panel Identification
	Sign structure location Identification-removal.dwg	(Varies)	Sign Structure Location Identification
	Signal controller and cabinet ground mounted-removal.dwg	(Varies)	Signal Controller and Cabinet, Ground-Mounted
	Signal controller and cabinet pole mounted-removal.dwg	(Varies)	Signal Controller and Cabinet, Pole-Mounted
	Traffic guide posts-removal.dwg	(Varies)	Traffic Guide Posts
	Traffic post top side of pole mounted signal-removal.dwg	(Varies)	Traffic Post Top Side of Pole-Mounted Signal
	Traffic signal span wire installation with span length-removal.dwg	(Varies)	Traffic Signal Span Wire Installation with Span Length
	Traffic signal standard with Identification-removal.dwg	(Varies)	Traffic Signal Standard with Identification
	Traffic signal standard with mast arm length-removal.dwg	(Varies)	Traffic Signal Standard with Mast Arm Length
	Vehicle detector with Identification-removal.dwg	(Varies)	Vehicle Detector with Identification
	Vehicular signal head with Identification-removal.dwg	(Varies)	Vehicular Signal Head with Identification

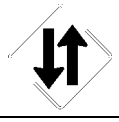
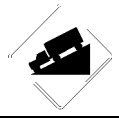
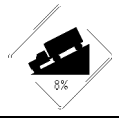
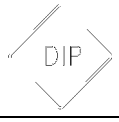
1.23.4.8 WARNING

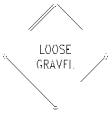
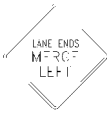
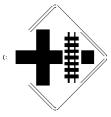
Symbol	Block Name	Layer Name	Description
	KW21-4.DWG	(Varies)	"Work Area" Sign with Input Field
	SupPlate.dwg	(Varies)	"XXX FEET" Sign

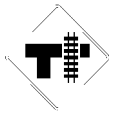
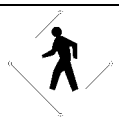
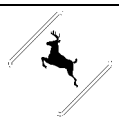
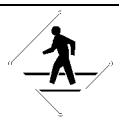
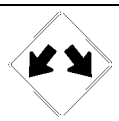
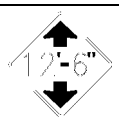
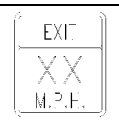
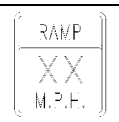
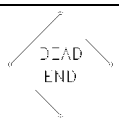
	W1-1L.DWG	(Varies)	Left Turn Ahead
	W1-1R.DWG	(Varies)	Right Turn Ahead
	W1-2L.DWG	(Varies)	Left Bend Ahead
	W1-2R.DWG	(Varies)	Right Bend Ahead
	W1-3L.DWG	(Varies)	Lane Shift to Left Ahead
	W1-3R.DWG	(Varies)	Lane Shift to Right Ahead
	W1-4aL.dwg	(Varies)	Bear Left Ahead
	W1-4aR.dwg	(Varies)	Bear Right Ahead
	W1-4bL.dwg	(Varies)	Bear Left Ahead (Two Lanes)
	W1-4bR.dwg	(Varies)	Bear Right Ahead (Two Lanes)
	W1-4cL.dwg	(Varies)	Bear Left Ahead (Three Lanes)
	W1-4cR.dwg	(Varies)	Bear Right Ahead (Three Lanes)
	W1-5L.DWG	(Varies)	Lane Swerves Left
	W1-5R.DWG	(Varies)	Lane Swerves Right

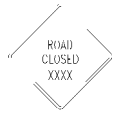
	W1-6L.DWG	(Varies)	Must Turn Left
	W1-6R.DWG	(Varies)	Must Turn Right
	W1-7.DWG	(Varies)	Must Turn Either Left or Right
	W1-8L.DWG	(Varies)	Left Bend Arrow Sign
	W1-8R.DWG	(Varies)	Right Bend Arrow Sign
	W2-1.DWG	(Varies)	Four-Way Intersection Sign
	W2-2L.DWG	(Varies)	Side Street Intersection on Left Ahead
	W2-2R.DWG	(Varies)	Side Street Intersection on Right Ahead
	W2-3L.DWG	(Varies)	Diverging Street Ahead – Left
	W2-3R.DWG	(Varies)	Diverging Street Ahead – Right
	W2-4.DWG	(Varies)	Three-Way Intersection
	W2-5.DWG	(Varies)	Three-Way Intersection (Diverging)
	W2-7-NY.DWG	(Varies)	Converging Street Ahead – Left
	W2-8-NY.DWG	(Varies)	Converging Street Ahead – Left

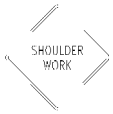
	W2-10-NY.DWG	(Varies)	Alternating Intersections Ahead
	W2-11-NY.DWG	(Varies)	Alternating Intersections Ahead
	W2-14-NY.DWG	(Varies)	Traffic Circle
	W3-1.DWG	(Varies)	“Stop Ahead” Sign
	W3-1a.dwg	(Varies)	Stop Ahead
	W3-2.DWG	(Varies)	“Yield Ahead” Sign
	W3-2a.dwg	(Varies)	Yield Ahead
	W3-3.DWG	(Varies)	Traffic Light Ahead
	W3-4-NY.DWG	(Varies)	Road Splits Ahead
	W3-11-NY.DWG	(Varies)	Road Narrows
	W3-14-NY.DWG	(Varies)	“Single Lane” Sign
	W4-1L.DWG	(Varies)	Lane Merges from Left Ahead
	W4-1R.DWG	(Varies)	Lane Merges from Right Ahead
	W4-2L.DWG	(Varies)	Lanes Merge from Left

	W4-2R.DWG	(Varies)	Lanes Merge from Right
	W4-3L.DWG	(Varies)	Merging from Left
	W4-3R.DWG	(Varies)	Merging from Right
	W5-1.DWG	(Varies)	“Road Narrows” Sign
	W5-2.DWG	(Varies)	“Narrow Bridge” Sign
	W5-3.DWG	(Varies)	“One Lane Bridge” Sign
	W5-4.DWG	(Varies)	“Ramp Narrows” Sign
	W6-1.DWG	(Varies)	Divergence of Lanes
	W6-2.DWG	(Varies)	Convergence of Lanes
	W6-3.DWG	(Varies)	Two-Way Traffic
	W7-1.DWG	(Varies)	Decline
	W7-1b.dwg	(Varies)	Decline with Percent Gradation
	W8-1.DWG	(Varies)	“Bump” Sign
	W8-2.DWG	(Varies)	“Dip” Sign

	W8-3.DWG	(Varies)	“Pavement Ends” Sign
	W8-4.DWG	(Varies)	“Soft Shoulder” Sign
	W8-5.dwg	(Varies)	Car Swerve Area
	W8-6.DWG	(Varies)	“Truck Crossing” Sign
	W8-7.DWG	(Varies)	“Loose Gravel” Sign
	W8-9.DWG	(Varies)	“Low Shoulder” Sign
	W8-9a.dwg	(Varies)	Uneven Pavement
	W9-1L.DWG	(Varies)	“Left Lane Ends” Sign
	W9-1R.DWG	(Varies)	“Right Lane Ends” Sign
	W9-2L.DWG	(Varies)	“Lane Ends Merge Left” Sign
	W9-2R.DWG	(Varies)	“Lane Ends Merge Right” Sign
	W9-3.DWG	(Varies)	“Center Lane Closed” Sign with Input Field
	W10-1.DWG	(Varies)	Railroad Crossing
	W10-2.DWG	(Varies)	Railroad Crossing & Adjacent 4-Way Intersection

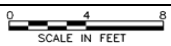
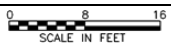
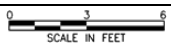
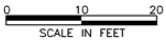
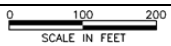
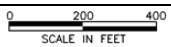
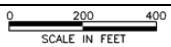
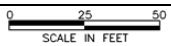
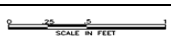
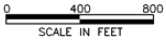
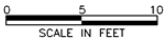
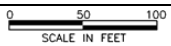
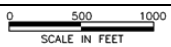
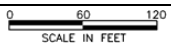
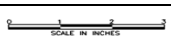
	W10-3.DWG	(Varies)	Railroad Crossing & Adjacent 3-Way Intersection
	W10-4.DWG	(Varies)	Railroad Crossing & Side Street Intersection
	W11-1.DWG	(Varies)	Bicycle Area
	W11-2.DWG	(Varies)	Pedestrian Crossing
	W11-3.DWG	(Varies)	Deer Area
	W11-7.DWG	(Varies)	Horseback Riding Area
	W11-9.DWG	(Varies)	Handicapped Zone
	W11A-2.DWG	(Varies)	Pedestrian Crossing (Crosswalk)
	W12-1.DWG	(Varies)	Road Divides
	W12-2.DWG	(Varies)	Vertical Clearance Sign
	W13-1.DWG	(Varies)	Speed Limit Sign
	W13-2.DWG	(Varies)	Speed Limit at Exit
	W13-3.DWG	(Varies)	Speed Limit on Ramp
	W14-1.DWG	(Varies)	“Dead End” Sign

	W14-2.DWG	(Varies)	“No Outlet” Sign
	W14-3.DWG	(Varies)	“No Passing Zone” Sign
	W20-1.DWG	(Varies)	“Road Work” Sign with Input Field
	W20-2.DWG	(Varies)	“Detour” Sign with Input Field
	W20-3.DWG	(Varies)	“Road Closed” Sign with Input Field
	W20-4.DWG	(Varies)	“One Lane Road” Sign with Input Field
	W20-5aL.dwg	(Varies)	“Left Two Lanes Closed” Sign with Input Field
	W20-5aR.dwg	(Varies)	“Right Two Lanes Closed” Sign with Input Field
	W20-5L.DWG	(Varies)	“Left Lane Closed” Sign with Input Field
	W20-5R.DWG	(Varies)	“Right Lane Closed” Sign with Input Field
	W20-7a.dwg	(Varies)	Flagger Ahead
	W21-1.DWG	(Varies)	“Workers” Sign
	W21-1a.dwg	(Varies)	Workers Ahead
	W21-4.DWG	(Varies)	“Road Work” Sign

	W21-5.DWG	(Varies)	“Shoulder Work” Sign
	W21-5a.dwg	(Varies)	“Right Shoulder Closed” Sign
	W21-5b.dwg	(Varies)	“Right Shoulder Closed” Sign with Input Field

1.24 APPENDIX I – COMMON SYMBOLOGY

1.24.1 GRAPHIC SCALE BARS

Symbol	Block Name	Layer Name	Description
	BS1_32in-1ft.dwg	D-ANNO-SYMB	Scale Bar 1/32”=1’-0”
	BS1_16in-1ft.dwg	D-ANNO-SYMB	Scale Bar 1/16”=1’-0”
	BS1_2in-1ft.dwg	D-ANNO-SYMB	Scale Bar ½”=1’-0”
	BS1_4 in-1ft.dwg	D-ANNO-SYMB	Scale Bar ¼”=1’-0”
	BS1_8in-1ft.dwg	D-ANNO-SYMB	Scale Bar 1/8”=1’-0”
	BS3_16 in-1ft.dwg	D-ANNO-SYMB	Scale Bar 3/16”=1’-0”
	BS3_32in-1ft.dwg	D-ANNO-SYMB	Scale Bar 3/32”=1’-0”
	BS3_4in-1ft.dwg	D-ANNO-SYMB	Scale Bar ¾”=1’-0”
	BS3_8in-1ft.dwg	D-ANNO-SYMB	Scale Bar 3/8”=1’-0”
	BS1-1_2in-1ft.dwg	D-ANNO-SYMB	Scale Bar 1-1/2”=1’-0”
	BS1in-1ft.dwg	D-ANNO-SYMB	Scale Bar 1”=1’-0”
	BS1in-10ft.dwg	D-ANNO-SYMB	Scale Bar 1”=10’-0”
	BS1in-100ft.dwg	D-ANNO-SYMB	Scale Bar 1”=100’-0”
	BS1in-20ft.dwg	D-ANNO-SYMB	Scale Bar 1”=20’-0”
	BS1in-200ft.dwg	D-ANNO-SYMB	Scale Bar 1”=200’-0”
	BS1in-25ft.dwg	D-ANNO-SYMB	Scale Bar 1”=25’-0”
	BS3in-1ft.dwg	D-ANNO-SYMB	Scale Bar – 3”=1’-0”
	BS1in-30ft.dwg	D-ANNO-SYMB	Scale Bar 1”=30’-0”
	BS1in-40ft.dwg	D-ANNO-SYMB	Scale Bar 1”=40’-0”
	BS1in-400ft.dwg	D-ANNO-SYMB	Scale Bar 1”=400’-0”
	BS1in-5ft.dwg	D-ANNO-SYMB	Scale Bar 1”=5’-0”
	BS1in-50ft.dwg	D-ANNO-SYMB	Scale Bar 1”=50’-0”
	BS1in-500ft.dwg	D-ANNO-SYMB	Scale Bar 1”=500’-0”
	BS1in-60ft.dwg	D-ANNO-SYMB	Scale Bar 1”=60’-0”
	BSFULL.dwg	D-ANNO-SYMB	Scale Bar 1”=1”

The letter “D” under the Layer Name is to be replaced by the specific Discipline’s Discipline Code.

1.24.2 NORTH ARROWS

Symbol	Block Name	Layer Name	Description
	N_ARROW1.dwg	D-ANNO-SYMB	North Arrow
	N_ARROW2.dwg	D-ANNO-SYMB	North Arrow

The letter “D” under the Layer Name is to be replaced by the specific Discipline’s Discipline Code.

1.25 APPENDIX K – CONTRACT BORDERS AND TITLE SHEETS

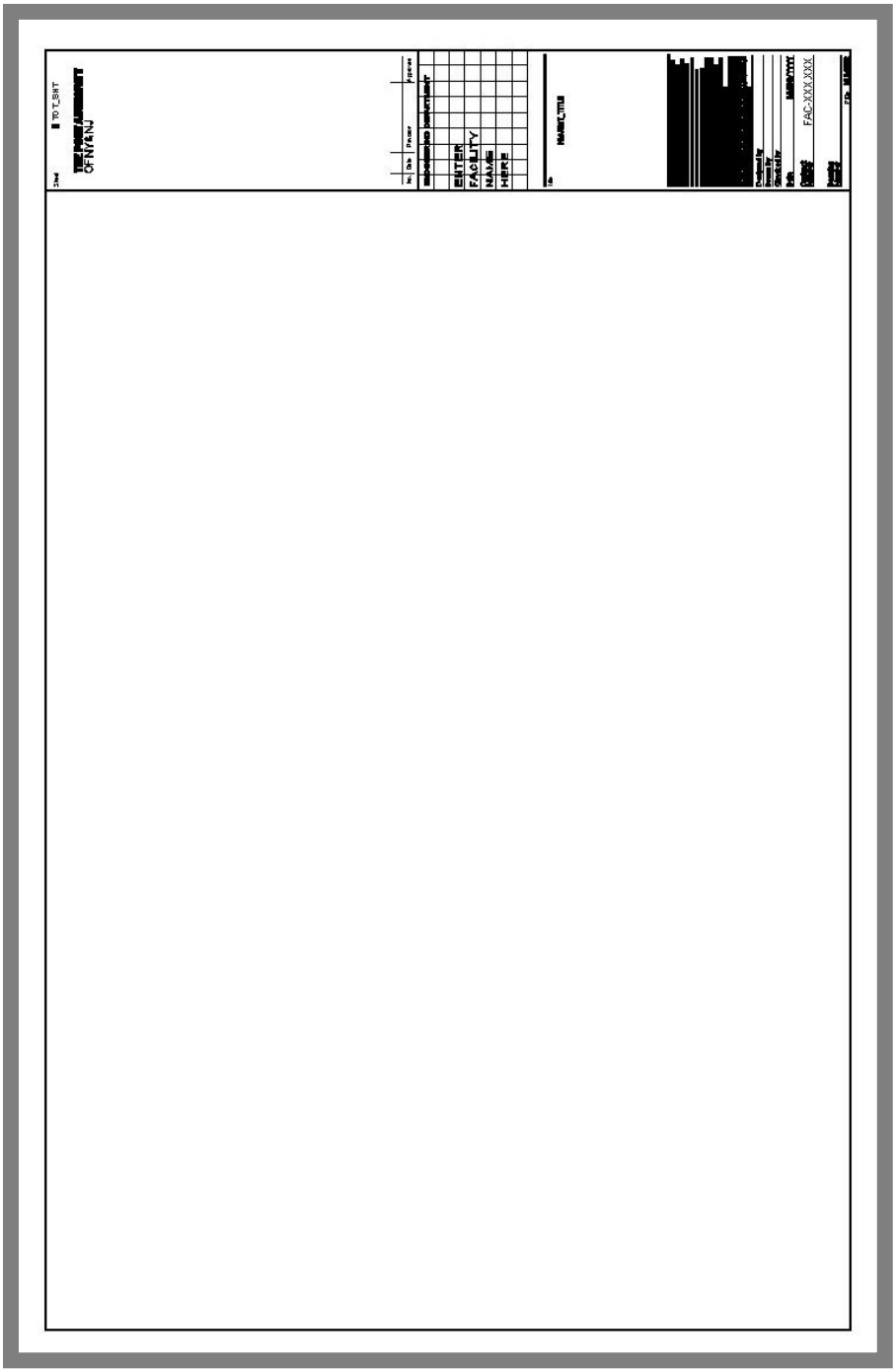
1.25.1 TITLE SHEET

1.25.2 TITLE SHEET OVERSIZED (OS)

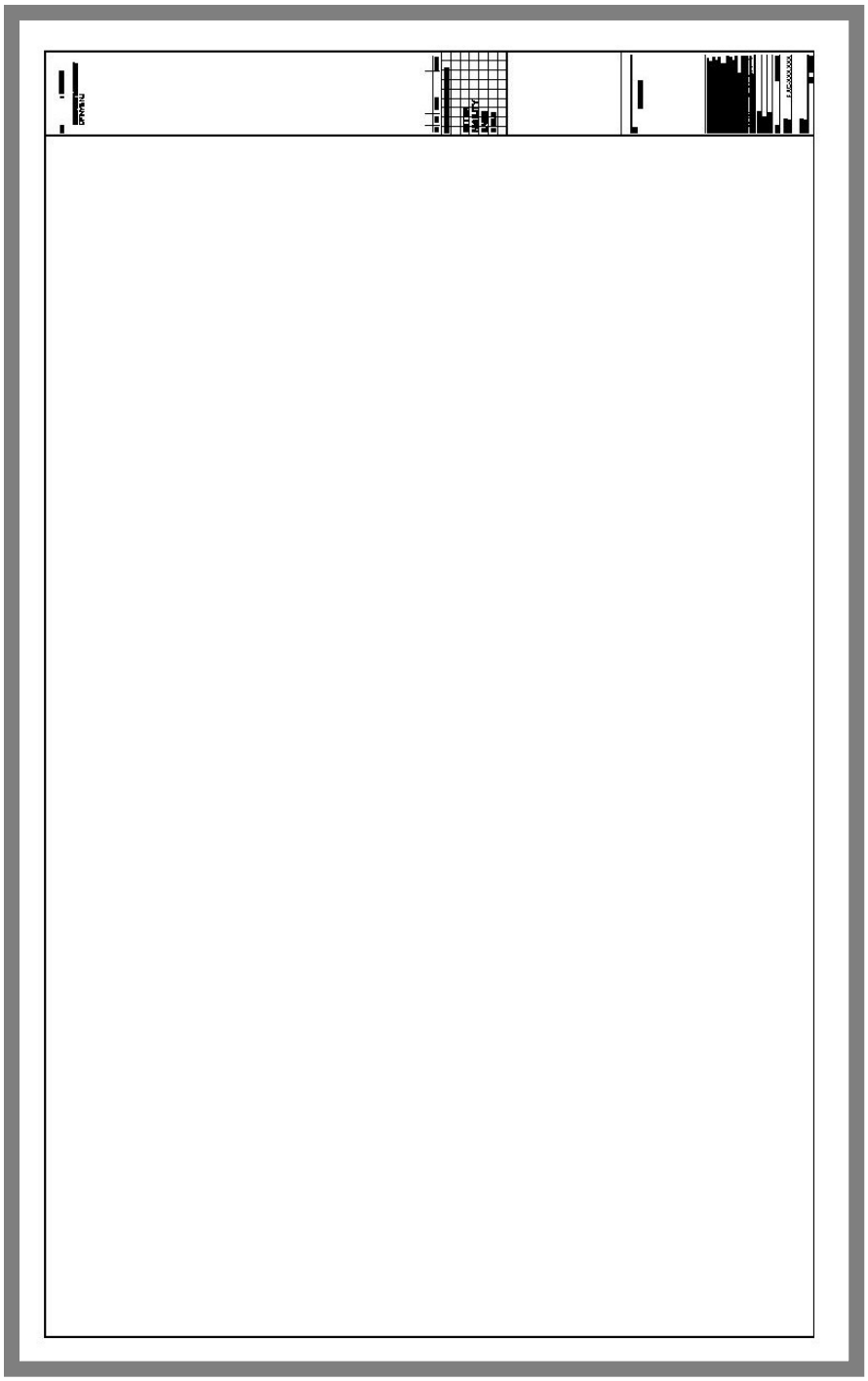
1.25.3 TITLE SHEET PATH

1.25.4 TITLE SHEET PATH OVERSIZED (OS)

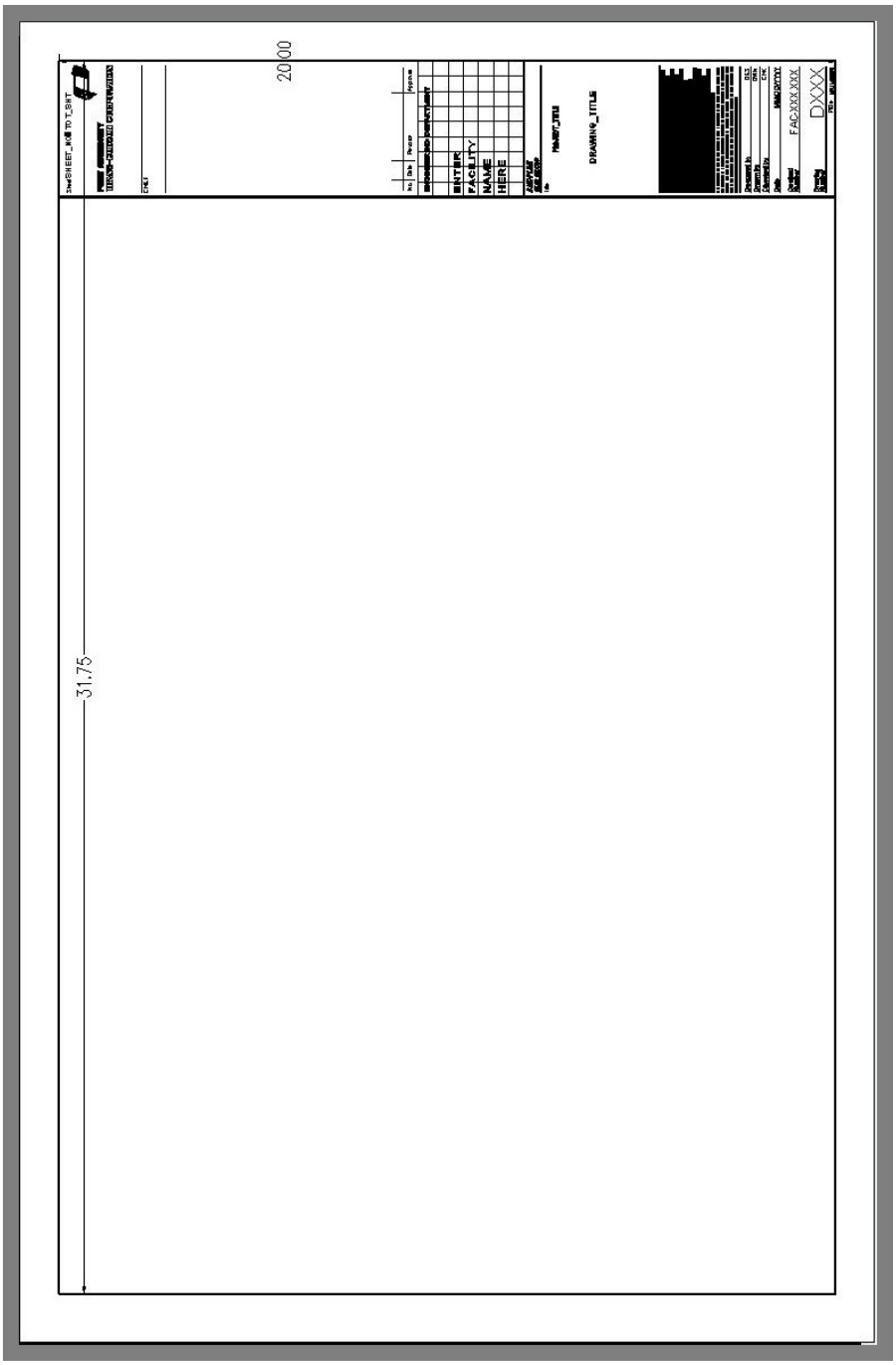
1.25.5 CONTRACT BORDER



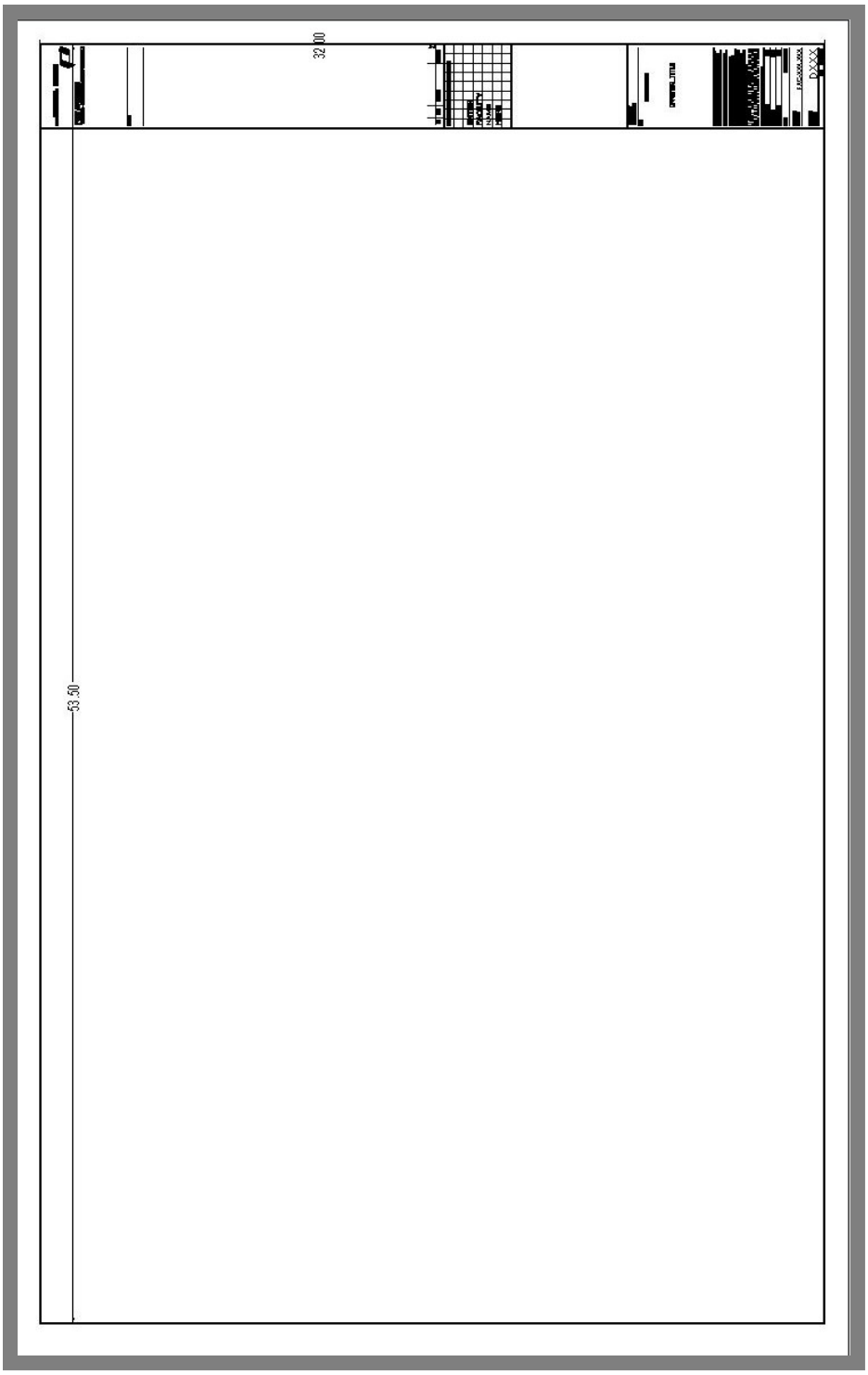
1.25.6 CONTRACT BORDER OVERSIZED (OS)



1.25.7 CONTRACT BORDER PATH



1.25.8 CONTRACT BORDER PATH OVERSIZED (OS)



1.26 APPENDIX K – DISTRIBUTION FILES

This section identifies the files supplied for general use within the E/A Design Division CAD Standard. The entire E/A Design Division CAD Standard can be found internally at K:\Application\EAD\CAD_Standards\2018 or externally downloaded from: http://www.panynj-cadstandards.com/

K:\Application\Palettes	
	Contains all Tool Palette files (.atc) specific to that discipline.
K:\Application\Plotter	
	Contains all Plotter Configuration files (.pc3) specific to that discipline.
K:\Application\Plotter\Plot_Styles	
PA – MasterCOLOR.ctb	Plot Style for plotting Drawings in Color.
PA – MasterFULL.ctb	Plot Style for plotting Full Scale Drawings.
PA – MasterHALF.ctb	Plot Style for plotting Half Scale Drawings.
PA - MasterQUARTER.ctb	Plot Style for plotting Quarter Scale Drawings.
K:\Application\Plotters\PMP Files	
	Contains all Plotter Model Parameter files (.pmp) specific to that discipline.
K:\Application\EAD\CAD_Standards\2018	
	Contains the "EAD_CAD_Standard" and "Request to Change Standard" documents.
All_Disciplines	Contains all cross discipline support files and content.
<Discipline>	Contains all discipline specific support files and content.
K:\Application\EAD\CAD_Standards\2018\All_Disciplines\Contract_Borders	
Border - ANSI A - Horizontal.dwg	8.5x11 landscape border for use in non-contract drawings.
Border - ANSI A - Vertical.dwg	8.5x11 portrait border for use in non-contract drawings.
Border - ANSI B - Horizontal.dwg	11x17 landscape border for use in non-contract drawings.
Border - ANSI B - Vertical.dwg	11x17 portrait border for use in non-contract drawings.
Contract_Border - OS.dwg	34x56 border for contract drawings.
Contract_Border_PATH - OS.dwg	34x56 border for Port Authority Trans Hudson contract drawings.
Contract_Border_PATH.dwg	22x34 border for Port Authority Trans Hudson contract drawings.
Contract_Border.dwg	22x34 border for contract drawings.
Drawing_Info - OS.dwg	Drawing information block for use with 34x56 borders.
Drawing_Info.dwg	Drawing information block for use with 22x34 borders.
Drawing_Info_PATH,dwg	Drawing information block (Port Authority Trans Hudson) for use with 22x34 borders
Drawing_Info_PATH - OS,dwg	Drawing information block (Port Authority Trans Hudson) for use with 34x56 borders
Title_Sheet - OS.dwg	34x56 title sheet for contract drawings.
Title_Sheet - PATH - OS.dwg	34x56 title sheet for Port Authority Trans Hudson contract drawings.
Title_Sheet - PATH.dwg	22x34 title sheet for Port Authority Trans Hudson contract drawings.
Title_Sheet.dwg	22x34 title sheet for contract drawings.

K:\Application\EAD\CAD_Standards\2018\All_Disciplines\Contract_Borders\Stamps	
Contract_Border – Stamp_Law-Review.dwg	Law Review submission stamp for use on 22x34 borders.
Contract_Border – Stamp_Law-Review - OS.dwg	Law Review submission stamp for use on 34x56 borders.
Contract_Border – Stamp_Preliminary.dwg	Preliminary submission stamp for use on 22x34 borders.

Contract_Border – Stamp_Preliminary - OS.dwg	Preliminary submission stamp for use on 34x56 borders.
Contract_Border – Stamp_QA-Submission.dwg	Quality Assurance submission stamp for use on 22x34 borders for FTA projects.
Contract_Border – Stamp_QA-Submission - OS.dwg	Quality Assurance submission stamp for use on 34x56 borders for FTA projects.
Contract_Border – Stamp_Submission.dwg	Percent submission stamp for use on 22x34 borders.
Contract_Border – Stamp_Submission - OS.dwg	Percent submission stamp for use on 34x56 borders.
CP - WARNING.dwg	Confidential Privileged Warning sign for use on stamp for use on 22x34 borders for CP drawings.
CP - WARNING - OS.dwg	Confidential Privileged Warning sign for use on 34x56 borders for CP drawings
Drawing_Info - Stamp_Cbar.dwg	Confidential stamp for use on 22x34 borders for C drawings.
Drawing_Info – Stamp_Cbar – OS.dwg	Confidential stamp for use on 34x56 borders for C drawings.
Drawing_Info - Stamp_CPbar.dwg	Confidential Privileged stamp for use on 22x34 borders for CP drawings.
Drawing_Info – Stamp_CPbar – OS.dwg	Confidential Privileged stamp for use on 34x56 borders for CP drawings.
Drawing_Info – Stamp_PERA.dwg	Single or Multiple consultant company providing NJ/NY RA or PE signatures on 22x34 drawings.
Drawing_Info - Stamp_PERA - OS.dwg	Single or Multiple consultant company providing NJ/NY RA or PE signatures on 34x56 drawings.
Drawing_Info - Stamp_PERA_Bi-State.dwg	Multiple consultant company providing NJ & NY RA or PE signatures on 22x34 drawings.
Drawing_Info - Stamp_PERA_Bi-State - OS.dwg	Multiple consultant company providing NJ & NY RA or PE signatures on 34x56 drawings.
Drawing_Info - Stamp_Revision.dwg	Revision stamp for use on both 22x34 and 34x56 drawings.
Drawing_Info - Stamp_Triangle.dwg	Revision triangle marker for placement near revision clouds.
K:\Application\Fonts	
HELV-2F.SXH	Font used for Contract Border and Title Sheet information.
HELV-M.SHX	Font used for Contract Border, Title Sheet & Alternate Title information.
K:\Application\EAD\CAD_Standards\2018\All_Disciplines\Layer Key Styles	
PA_LKS-ACA2018 - Architectural	Layer Key Styles for use by the Architectural Discipline within ACA
PA_LKS-ACA2018 - Structural	Layer Key Styles for use by the Structural Discipline within ACA
K:\Application\EAD\CAD_Standards\2018\All_Disciplines\Page Setups	
115Bway.dwg	Drawing file containing pre-configured page setups for plotting drawings to devices located at 115 Broadway.
Architectural.dwg	Drawing file containing pre-configured page setups for plotting drawings to devices located within the Architectural Plotter Room at 4 WTC.
Civil.dwg	Drawing file containing pre-configured page setups for plotting drawings to devices located within the Civil Plotter Room at 4 WTC.
Electrical.dwg	Drawing file containing pre-configured page setups for plotting drawings to devices located within the Electrical Plotter Room at 4 WTC.
Environmental.dwg	Drawing file containing pre-configured page setups for plotting drawings to devices located within the Environmental Plotter Room at 4 WTC.
Geotechnical.dwg	Drawing file containing pre-configured page setups for plotting drawings to devices located within the Geotechnical Plotter Room at 4 WTC.
Mechanical.dwg	Drawing file containing pre-configured page setups for plotting drawings to devices located within the Mechanical Plotter Room at 4 WTC.
PA – PDF (High Quality Print).dwt	Drawing file containing pre-configured page setups for high quality full and over-sized PDF creation

Structural.dwg	Drawing file containing pre-configured page setups for plotting drawings to devices located within the Structural Plotter Room at 4 WTC.
Traffic.dwg	Drawing file containing pre-configured page setups for plotting drawings to devices located within the Traffic Plotter Room at 4 WTC.
K:\Application\EAD\CAD_Standards\2018\All_Disciplines\Palettes	
	Generic Tool Palettes for use by all disciplines.

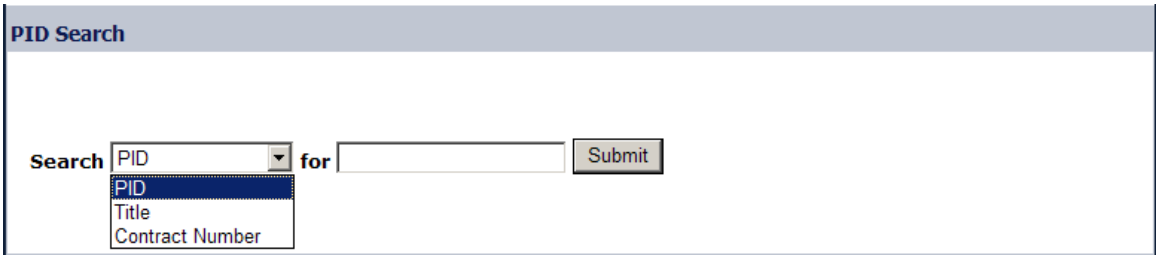
K:\Application\EAD\CAD_Standards\2018\All_Disciplines\Sample Project	
	Contains a Sample Folder Structure that mimics the Folder Structure used when new projects are created.
K:\Application\EAD\CAD_Standards\2018\All_Disciplines\Support	
PA.shx	Shape file used by certain line types.
PA - Design.lin	Line type definition file containing custom line types.
K:\Application\EAD\CAD_Standards\2018\All_Disciplines\Symbols	
BS1-1_2in-1ft.dwg	1 1/2" = 1' Bar Scale
BS1_2in-1ft.dwg	1/2" = 1' Bar Scale
BS1_4in-1ft.dwg	1/4" = 1' Bar Scale
BS1_8in-1ft.dwg	1/8" = 1' Bar Scale
BS1_16in-1ft.dwg	1/16" = 1' Bar Scale
BS1_32in-1ft.dwg	1/32" = 1' Bar Scale
BS1in-1ft.dwg	1" = 1' Bar Scale
BS1in-1in.dwg	1" = 1" Bar Scale
BS1in-5ft.dwg	1" = 5' Bar Scale
BS1in-10ft.dwg	1" = 10' Bar Scale
BS1in-20ft.dwg	1" = 20' Bar Scale
BS1in-25ft.dwg	1" = 25' Bar Scale
BS1in-30ft.dwg	1" = 30' Bar Scale
BS1in-40ft.dwg	1" = 40' Bar Scale
BS1in-50ft.dwg	1" = 50' Bar Scale
BS1in-60ft.dwg	1" = 60' Bar Scale
BS1in-100ft.dwg	1" = 100' Bar Scale
BS1in-200ft.dwg	1" = 200' Bar Scale
BS1in-400ft.dwg	1" = 400' Bar Scale
BS1in-500ft.dwg	1" = 500' Bar Scale
BS3_4in-1ft.dwg	3/4" = 1' Bar Scale
BS3_8in-1ft.dwg	3/8" = 1' Bar Scale
BS3_16in-1ft.dwg	3/16" = 1' Bar Scale
BS3_32in-1ft.dwg	3/32" = 1' Bar Scale
BS3in-1ft.dwg	3" = 1' Bar Scale
BS6in-1ft.dwg	6" = 1' Bar Scale
N_ARROW1.dwg	North Arrow within Bubble
N_ARROW2.dwg	North Arrow
K:\Application\EAD\CAD_Standards\2018\All_Disciplines\Template\SSM	
PA – SheetSet Master.dst	Sheet set manager template for all the disciplines.
PA – SSM Contract Borders - arch-inch.dwt	Drawing Template for Architectural Unit based Plotsheet drawings in Vault

PA – SSM Contract Borders - deci-feet.dwt	Drawing Template for Decimal Unit Plotsheet based drawings in Vault
K:\Application\EAD\CAD_Standards\2018\All_Disciplines\Template	
PA – arch-inch.dwt	Drawing Template for Architectural Unit based drawings.
PA – deci-feet.dwt	Drawing Template for Decimal Unit based drawings.
K:\Application\EAD\CAD_Standards\2018\<Discipline>\Layers	
	Contains all Layer template files (.dwt) specific to that discipline.
K:\Application\EAD\CAD_Standards\2018\<Discipline>\Symbols	
	Contains all the symbol library files (.dwg) used by that discipline.

1.27 APPENDIX L – USING STANDARD FORMS ON EOL (INTERNAL USE ONLY)

1.27.1 PID SEARCH

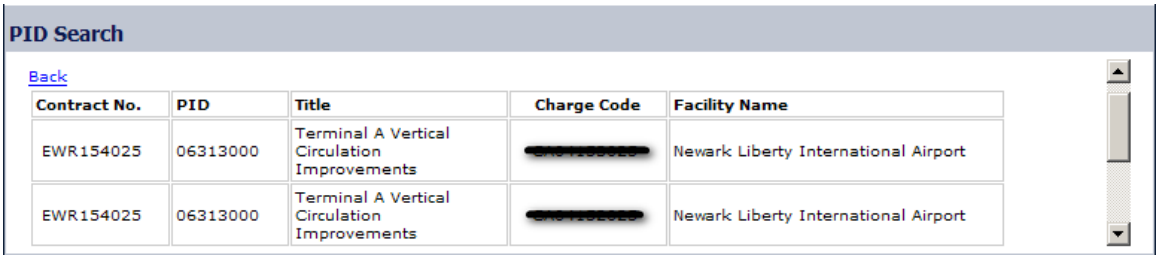
The PID Search can be used to find additional information pertaining to a project such as the Contract Number, PID, Title, Charge Code(s) and Facility name by searching based on either the PID, Contract Number or Project Title.



To use this form:

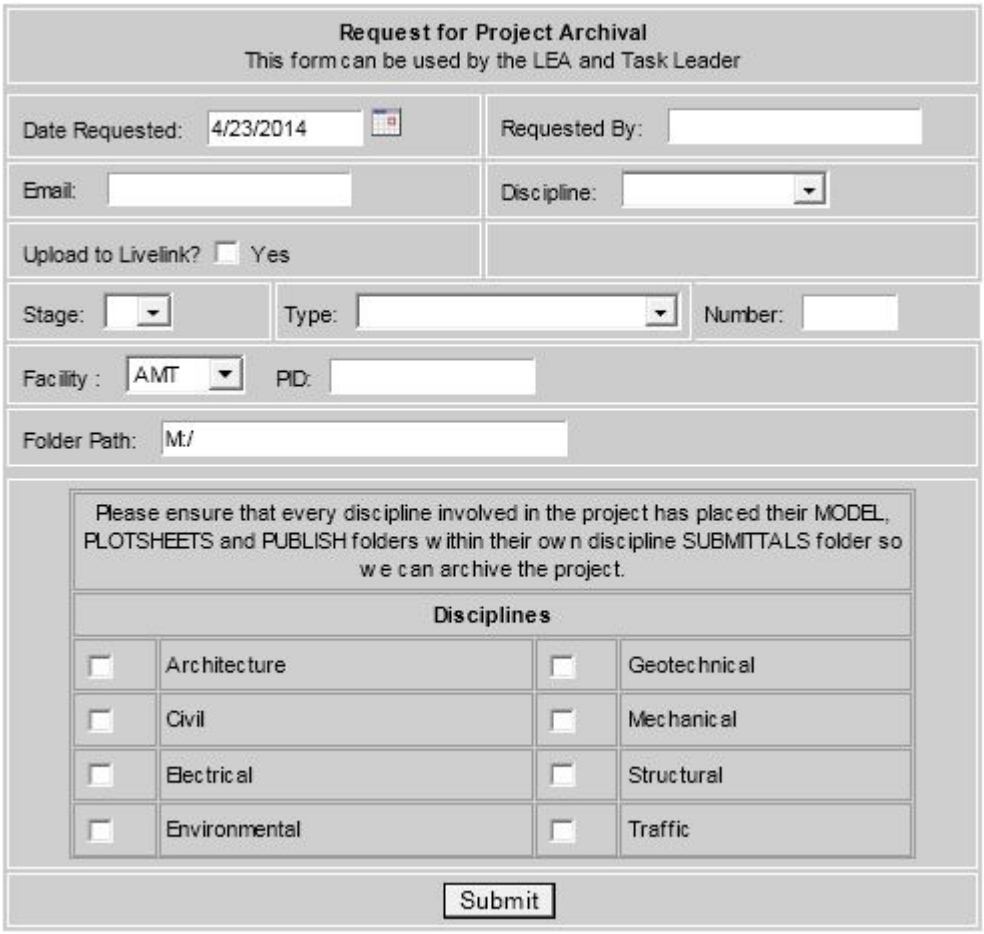
1. Pick the appropriate category that you want to search for, the options are PID, Contract Number or Title.
2. Type in the appropriate search information based on the category you are searching in.
3. Select Submit

Once the query is finished a list of all projects matching your criteria will be displayed with the following information Contract Number, PID, Title, Charge Code and Facility Name.



1.27.2 REQUEST PROJECT ARCHIVAL

This form is used to request that a project be archived from the Project "M:" drive to the Archive "N:" drive in order to preserve a contract sets files at a particular milestone. Please ensure that all disciplines involved place the appropriate folders within the appropriate Submittals folder for their discipline prior to requesting the Project Archival.



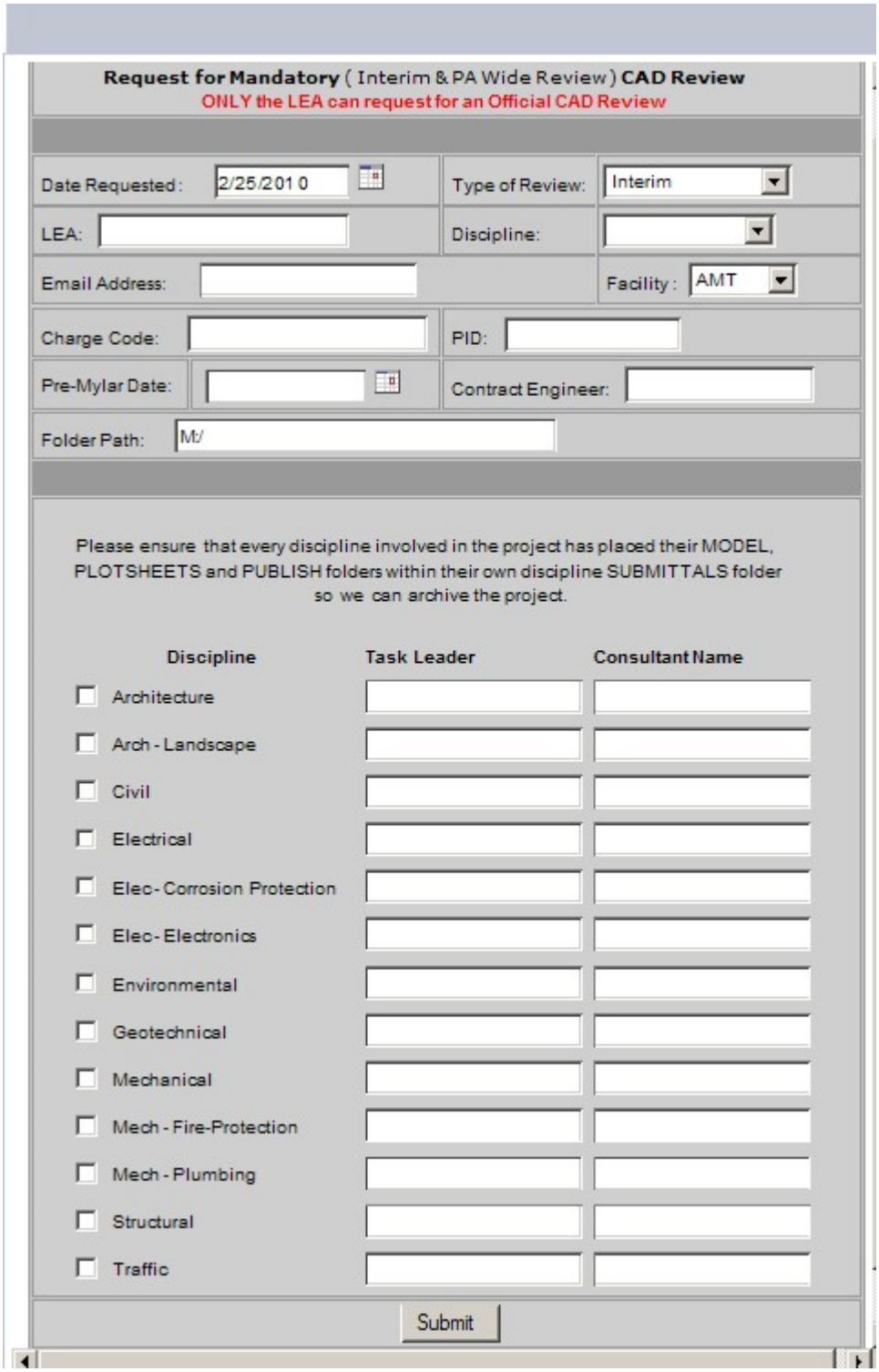
To use this form:

1. **Requested By**: Either the LEA or the Task Leader may request for an Archival.
2. **Email:** It is mandatory that you supply a valid email address to receive a confirmation of your request. This email will also be used to notify you as soon as the request has been processed.
3. **Discipline:** Pick which Discipline you belong to.
4. **Upload to Livelink:** Check this box if you would like files uploaded to a project website on Livelink.
5. **Stage:** Enter what stage the project is in, I, II, III or IV.
6. **Type:** Enter the type of submittal this is, PA Review, As-Advertised, 50% Submittal, etc.
7. **Number:** Fill this out only if your project is either a PACC or an Addendum.
8. **Facility:** Enter the facility the project is for.
9. **PID:** Enter the PID of the project
10. **Folder Path:** Provide the path to the folder that needs to be archived.
11. **Disciplines:** Check all the disciplines involved in this project. This will ensure that all the involved disciplines' folders are archived.

1.27.3 REQUEST PROJECT CAD DRAWINGS

This Section Currently Under Construction

1.27.4 REQUEST FOR MANDATORY CAD REVIEW



Request for Mandatory (Interim & PA Wide Review) CAD Review
ONLY the LEA can request for an Official CAD Review

Date Requested:	2/25/2010	Type of Review:	Interim
LEA:		Discipline:	
Email Address:		Facility:	AMT
Charge Code:		PID:	
Pre-Mylar Date:		Contract Engineer:	
Folder Path:	M:/		

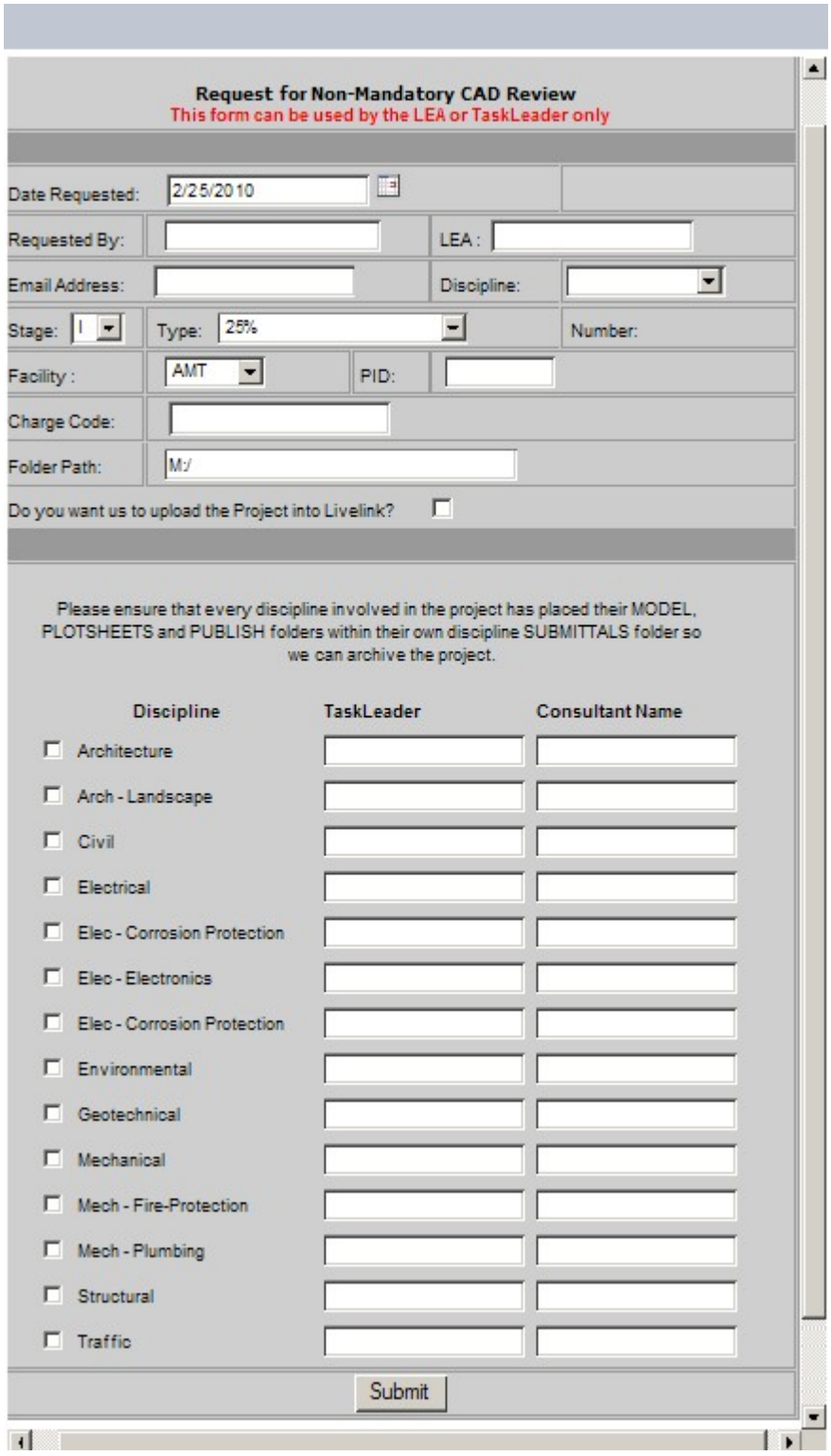
Please ensure that every discipline involved in the project has placed their MODEL, PLOTSHEETS and PUBLISH folders within their own discipline SUBMITTALS folder so we can archive the project.

Discipline	Task Leader	Consultant Name
☐ Architecture		
☐ Arch - Landscape		
☐ Civil		
☐ Electrical		
☐ Elec - Corrosion Protection		
☐ Elec - Electronics		
☐ Environmental		
☐ Geotechnical		
☐ Mechanical		
☐ Mech - Fire-Protection		
☐ Mech - Plumbing		
☐ Structural		
☐ Traffic		

Submit

1. **Type of Review:** Pick the type of Review (Interim or PA Wide Review)
2. **LEA**: Only the LEA may request for a Mandatory CAD Review. It is important to provide the name of the LEA for the results of the CAD Review.
3. **Email:** It is mandatory that you provide a valid email address to receive a confirmation of your request. This email will also be used to notify you as soon as the request has been processed.
4. **Discipline:** Enter the discipline that the LEA belongs to.
5. **Facility Name:** Enter the facility the project is for.
6. **Charge Code:** Enter the Charge Code to be used by the CAD Support Group for CAD Standards Review.
7. **PID:** Enter the PID of the project.
8. **PA Wide Review Date:** Provide the PA Wide Review date of the project.
9. **Contract Engineer:** Provide the name of the Contract Engineer that is to be notified once the PDF files have been uploaded to Livelink for PA Wide Review.
10. **Disciplines/Taskleaders/Consultant name:** Check all the disciplines involved in this project. This will ensure that all the involved disciplines' drawings are reviewed. Please ensure that all disciplines place their drawings in their appropriate submittal folders. It is important that the names of the Task leaders are provided in order to provide them with the results of the CAD Standards review. If a consultant has prepared the drawings for a particular discipline the consultant company name must also be provided because the requirements of CAD Standards compliance are slightly different for consultants.

1.27.5 REQUEST FOR NON-MANDATORY CAD REVIEW



Request for Non-Mandatory CAD Review
This form can be used by the LEA or TaskLeader only

Date Requested: 2/25/2010
Requested By: | LEA :
Email Address: | Discipline:
Stage: 1 | Type: 25% | Number:
Facility : AMT | PID:
Charge Code:
Folder Path: M:/
Do you want us to upload the Project into Livelink?

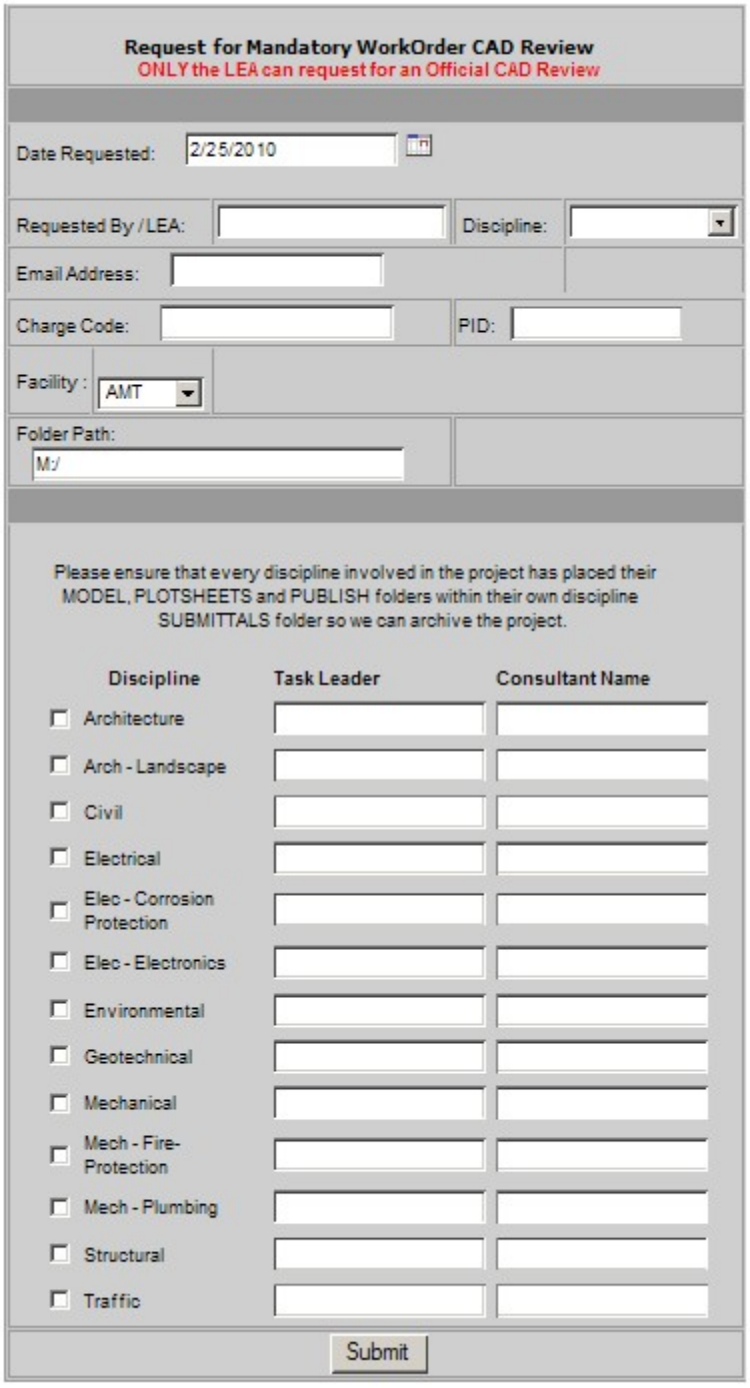
Please ensure that every discipline involved in the project has placed their MODEL, PLOTSHEETS and PUBLISH folders within their own discipline SUBMITTALS folder so we can archive the project.

Discipline	TaskLeader	Consultant Name
Architecture		
Arch - Landscape		
Civil		
Electrical		
Elec - Corrosion Protection		
Elec - Electronics		
Elec - Corrosion Protection		
Environmental		
Geotechnical		
Mechanical		
Mech - Fire-Protection		
Mech - Plumbing		
Structural		
Traffic		

Submit

1. **Requested By:** Either the LEA or Task Leader may request for a Non-Mandatory CAD Review.
2. **LEA:** It is important to provide the name of the LEA for the results of the CAD Review.
3. **Email:** It is mandatory that you provide a valid email address to receive a confirmation of your request. This email will also be used to notify you as soon as the request has been processed.
4. **Discipline:** Enter the discipline that the requestor belongs to.
5. **Stage:** Enter what stage the project is in, I, II, III or IV.
6. **Type:** Enter the type of submittal this is, PA Review, As-Advertised, 50% Submittal, etc.
7. **Number:** Fill this out only if your project is either a PACC or an Addendum.
8. **Facility:** Enter the facility the project is for.
9. **PID:** Enter the PID of the project
10. **Charge Code:** Enter the Charge Code to be used by the CAD Support Group for CAD Standards Review.
11. **Folder Path:** Provide the path to the folder that needs to be reviewed.
12. **Upload to Livelink:** Check this box if you would like files uploaded to a project website on Livelink.
13. **Disciplines/Taskleaders/Consultant name:** Check all the disciplines involved in this project. This will ensure that all the involved disciplines' drawings are reviewed. Please ensure that all disciplines place their drawings in their appropriate submittal folders. It is important that the names of the Task leaders are provided in order to provide them with the results of the CAD Standards review. If a consultant has prepared the drawings for a particular discipline the consultant company name must also be provided because the requirements of CAD Standards compliance are slightly different for consultants.

1.27.6 REQUEST FOR MANDATORY WORK ORDER CAD REVIEW



Request for Mandatory WorkOrder CAD Review
ONLY the LEA can request for an Official CAD Review

Date Requested: 2/25/2010

Requested By / LEA: | Discipline:

Email Address:

Charge Code: | PID:

Facility : AMT

Folder Path: M:/

Please ensure that every discipline involved in the project has placed their MODEL, PLOTSHEETS and PUBLISH folders within their own discipline SUBMITTALS folder so we can archive the project.

Discipline	Task Leader	Consultant Name
☐ Architecture		
☐ Arch - Landscape		
☐ Civil		
☐ Electrical		
☐ Elec - Corrosion Protection		
☐ Elec - Electronics		
☐ Environmental		
☐ Geotechnical		
☐ Mechanical		
☐ Mech - Fire-Protection		
☐ Mech - Plumbing		
☐ Structural		
☐ Traffic		

Submit

1. **LEA**: Only the LEA may request for a Work Order CAD Review. It is important to provide the name of the LEA for the results of the CAD Review.
2. **Email:** It is mandatory that you provide a valid email address to receive a confirmation of your request. This email will also be used to notify you as soon as the request has been processed.
3. **Discipline:** Enter the discipline that the LEA belongs to.
4. **Charge Code:** Enter the Charge Code to be used by the CAD Support Group for CAD Standards Review.
5. **PID:** Enter the PID of the project.
6. **Facility Name:** Enter the facility the project is for.
7. **Folder Path:** Provide the path to the folder that needs to be reviewed.
8. **Disciplines/Taskleaders/Consultant name:** Check all the disciplines involved in this project. This will ensure that all the involved disciplines' drawings are reviewed. Please ensure that all disciplines place their drawings in their appropriate submittal folders. It is important that the names of the Task leaders are provided in order to provide them with the results of the CAD Standards review. If a consultant has prepared the drawings for a particular discipline the consultant company name must also be provided because the requirements of CAD Standards compliance are slightly different for consultants.

1.27.7 REQUEST PROJECT FOLDER STRUCTURE

Date Requested *	4/23/2014
Requested By: *	
Email:	
PID:	
Facility Name: *	AMT
Project Name: *	
Contract Number: *	
Charge Code:	
Project Manager:	
LEA: *	
Confidential and Privileged Project:	No

Discipline Folder	Names of People that should have access to the CP folder.
Architectural	
Civil	
Electrical	
Environmental	
Geotechnical	
Mechanical	
Structural	
Traffic	

Submit

1. **Requested By:** Person requesting the creation of the folder structure
2. **Email:** It is mandatory that you provide a valid email address to receive a confirmation of your request. This email will also be used to notify you as soon as the request has been processed
3. **PID:** Enter the PID of the project
4. **Facility Name:** Enter the facility the project is for
5. **Project Name:** Complete title of the project
6. **Contract Number:** Enter the Contract Number
7. **Charge Code:** Enter the Charge Code to be used by the CAD Support Group for CAD Standards Review.
8. **Project Manager:** Enter the name of the Project Manager.
9. **LEA:** Name of the LEA
10. **Confidential Privileged Project:** Specify if it is a Confidential Privileged project or not
11. **Names of People that should have access to the CP folder:** If this is a Confidential Privileged project, the person requesting for the folder structure must specify the names of the people who should be granted access to the CP folder.

1.28 APPENDIX M – REQUEST TO CHANGE STANDARD

Engineering CAD/BIM Support Group
THE PORT AUTHORITY OF NY & NJ
E/A Design Division CAD Standards

DISCLAIMER

By making this submission you, the submitter, agrees that no contractual confidential relationship is established between you and the issuer of this Standard. If your material is incorporated into this Standard, you will not be compensated. In addition, if the material which you have submitted on this form is protected by any copyright, patent, trademark, or other proprietary right, then you are granting the issuer of this Standard a non-exclusive, royalty-free, perpetual and fully transferable license to use the materials in connection with this Standard.

SUBMITTER INFORMATION

Name	
Date	
Company	
Address	
Address	
City, State, ZIP	
Phone	
Email	

APPROVED BY

Architectural	
Civil	
Electrical	
Environmental	
Geotechnical	
Mechanical	
Structural	
Traffic	
CAD Support	

CAD STANDARD INFORMATION

Version of Standard to Update	

CHANGE INFORMATION

Section to be Changed	Appendices
Change Type	Edit

Change Description

APPROVAL / DENIAL INFORMATION

1.29 APPENDIX N - CHANGES TO THE STANDARDS

2019	File/Section	Description
First Quarter	1.10.3.8 Using the Signature Stamps	Mentioned the use of Bi-state stamp usage
	1.10.3.8 Using the Signature Stamps	Location of the seal for the consulting firm
	1.12 CAD Standards Review Report	Updated form of the CAD Report
Second Quarter	1.6.5.4 Plotsheet Files	Delete the statement of “one layout per Plotsheet only applies to Vault projects”.
	1.7.6.6.1 Plotsheets Plan Type	Add one layout per Plotsheet only applies to Vault projects.
	1.7.6.3 Data Standards (For PA Employees Using Vault)	Updated the Data Sheet screen shot to match the current folder structure.
	1.12 CAD Standards Review Report	Updated figure 1.12-2 to match the current Report
	1.12 CAD Standards Review Report	Civil 3D Objects Files (Civil Only)
Third Quarter	1.12 CAD Standards Review Report	CAD Review form is updated. Added General Section